Final Project Completion Report
On

Planting Stock Improvement Programme through Selection of Plus trees of Target Species and Evaluation of the Standing Plus Trees and Candidate Plus Trees

Submitted By: **Sanjeev Kumar, Scientist-E, IFP, Ranchi**
Pramod Chand Lakra, IFS, IFP, Ranchi
Rajeev Ranjan, Technical Officer, IFP, Ranchi
Arvind Kumar, Technical Officer, IFP, Ranchi

Submitted To: **State Forest Department, West Bengal**

INSTITUTE OF FOREST PRODUCTIVITY
¼Hkkjrh; okfudh vuqla/kku ,oa f'k{kk ifj"kn½
i;koj.k ou ,oa tyok;q ifjorZu e=ky;] Hkkjr ljdkj
(INDIAN COUNCIL OF FORESTRY RESEARCH AND EDUCATION)
(An Autonomous Body of the Ministry of Environment Forests and Climate Change, Govt. of India)
jkph&xeyk jk-ek-la-&23] ykyxqVok] jkph&835303 ¼>kj[k.M½
Ranchi-Gumla NH-23, Lalgutwa, Ranchi – 835 303 (Jharkhand)

CONTENTS

Sl. No.	Chapter	Page No.
1	Introduction	**3-4**
2	Objectives	**5**
3	Methodology	**6-9**
4	Results	**10-541**
5	Conclusion	**542-640**
6	Acknowledgement	**641-642**
7	References	**643-644**

CHAPTER-1

INTRODUCTION

Tree improvement, or as it isoften referred to as genetic improvement, is the process of improving the genetic quality of a tree species. Our forest trees are still genetically close to their wild state in their natural range. However, considerable variation exits in economic traits such as growth rate, stem form and wood quality between different populations within a species, and also between individual trees within populations. Opportunities, therefore, exit to improve the silvicultural value of a species by identifying the best wild seed sources; and also to select individuals within these to develop varieties that are considerably better than the wild material.

Variability studies are the pre-requisites and are of paramount importance for developingtree improvement strategy (Vakshasyaet al., 1992; Sharma et al., 1994). Tree improvement is the application of genetic principles to increase the value of tree crops. A genetically variable population and a method of selecting genetically superior individuals provide the basis for tree improvement by breeding. In essence, a tree improvement program sets out to isolate and evaluate the genetic component of variation in one or more characters of interest. In the simplest procedure, cycles of selection reduce the available population in a particular direction to enhance desirable traits, then breeding from selections to expand the population with improved characteristics. Breeding strategies vary with species and objectives, but all use mating designs to generate information and new material. Choice of a suitable breeding strategy and mating design is a key decision in any breeding program.

Forest tree breeding is emerging very fast with due to the need of rejuvenating the degraded forests. In India per capita forest area is only 0.064 hectare, against the world average of 0.64 hectare (FAO). The productivity if Indian forests is only 1.34 cubic meter per hectare per year, against the world average of 2.1 cubic meter per hectare per year. While 78% of the forest area is subjected to having grazing and other unregulated uses, adversely affecting the forest productivity.

Under the present scenario, there is an immediate need to undertake massive afforestation and reforestation programmes to meet the ever-increasing demand of forest produce and to achieve the stipulated 66 percent forest cover for the hill states (Aslam et al., 2011). Such a large scale plantation programmes will demand a large amount of planting material and to make those plantations more productive both quantitatively and qualitatively. This necessitates effective and planned tree breeding programmes to capture maximum genetic gain. Like in agricultural crops, genetically superior seed in forestry is of great significance on the quality of raising economically valuable plantations. Plus tree selection is generally aimed to get increased wood production and resin yielding ability for which phenotypic characteristics of the trees contribute the most towards productivity (Kedharnath, 1982) and accordingly owing to unexploited variation in the species, the available natural tree to tree variability should be exploited for the selection of superior individual trees (Aslam et al., 2010); which are referred as the 'plus trees'. The superior trees (plus or elite trees) is a phenotypically superior to the average of surrounding trees (comparison trees) for the desirable characters, which occur in natural stands and so the identification and selection of such trees is often utilized for production of good quality planting material in its mass multiplication for reforestation and breeding strategies(Aslam, 2005; Manisha and Bansal, 2007) which inturn facilitates tree improvement programme (Zobel and Talbert,1984; Mukherjee,2004).

This project has been formulated for selection of plus trees on targeted twelve tree species of West Bengal, which play important role in the forest ecosystem, general livelihood of local people and in market. The existing 1094 Plus trees and 1552 Candidate Plus Trees were selected long before and some of them had already outlived its utility. These trees were somehow not maintained annually, due to the misplaced priorities with the Research wing and the Forest Directorate in the changing times. Hence a revision exercise is very much required for new Plus trees and Candidate Plus Trees to set up eventually CSOs, SSOs etc. and seed stands for the future generation.

CHAPTER-II

OBJECTIVES

The major objectives of the projects are:

1. Selection of Candidate Plus Trees (CPT) and Plus Trees (PT) of the target species

2. Evaluation of standing plus trees and Candidate Plus Trees.

CHAPTER-III
METHODOLOGY

To achieve the major two objectives of the project following methodologies were used:

1. **Selection of Candidate Plus Trees(CPT) and Plus Trees(PT) of the target species**

Candidate Plus Trees of concerned species were selected in the areas directed by State Forest Department, West Bengal. Baseline selection method was employed. In this method the individuals are located and their value for traits of interest is compared to the average of the region in which the selection is made. The average is a "base line" giving the system its more common name "baseline selection". If the candidate tree exceeds the baseline by a considerable amount, it is selected and incorporated in the breeding population.

As all the selected species are valued as timber species, hence clear bole will be scored higher. In case of *Terminalia arjuna*, bark is the commercial part, hence in that case, bark characters has also been considered.

The criterion for screening trees was as follow:

i. Growth: Vigorous, healthy and showing superiority in height and diameter.

ii. Stem form: Straight stem, Stem cylindrical, circular in cross section, without excessive taper, Absence of spiral grain, Free from pronounced buttress and fluting

iii. Crown and Branching: Narrow to intermediate in width, Dense mass of healthy foliage.

iv. Free from insect and disease attack

1.1 Analysis of Growth Data

Analysis was carried out division wise and within the division, species wise. In the field following growth data was recorded of selected Candidate Plus Trees:

A. Quantifiable Traits

- Total Height
- Clear Bole Height
- Girth at Breast Height
- Crown Width

- Number of Branches

B. Qualitative Traits
   - Stem Straightness
   - Stem Form
   - Disease and Insect infection

1.1.1 Convergence of all quantifiable and scored traits in one scale

Data collected is of two types, quantifiable and non-quantifiable. For analysis, the data must be on one scale. As non-quantifiable traits are scored out of 10, hence quantifiable traits will also be converted into scores that will be out of 10. 5 class intervals will be made for each traits (minimum to maximum unit) and corresponding scores (6 to 10) has been given.

1.1.2 Weighted score according to its commercial use

After converging all the data weight are given to each trait according to its commercial use. Most of the species to be evaluated were timber species along with some as wild fruit and fodder ones.

In case of timber species, tree traits like Girth at Breast height, clear bole height along with total height, straightness and tree form are of interest and weightage has been given accordingly as follow (Total of 10):

Sl. No.	Tree Trait	Weightage
1	Total height	1.5
2	Clear Bole Height	2
3	Girth at Breast Height	2
4	Crown Width	0.25
5	Number of Branches	0.25
6	Stem Straightness	1.5
7	Stem Form	1.5
8	Infection	1.0

Likewise, if a species was a fruit yielding or fuel wood or fodder species, the weightage criteria was changed. Fruit yield will depend on the crown characteristics and number of branches. Hence accordingly weightage has been provided as follow:

Sl. No.	Tree Trait	Weightage
1	Total height	1.0
2	Clear Bole Height	0. 5
3	Girth at Breast Height	1.0
4	Crown Width	2.5
5	Number of Branches	3
6	Stem Straightness	0. 5
7	Stem Form	0. 5
8	Infection	1.0

The trees above average weighted scores were considered for plus tree and the numbers were selected depending upon the area in which they all are distributed. Rest are kept as Candidate Plus Trees.

2. Evaluation of existing plus trees and candidate plus tree:

2.1 Direct Rejection

For evaluation of existing plus trees CPTs, firstly direct rejection of trees in the field was carried out on the following basis:

a. Phenotypic appraisal

b. Tree growing in open conditions (not in competition) and or very near to road.

2.2 Analysis of Growth Data

Not more than 1 plus tree and 5-6Candidate Plus Trees per hectare should be preferred (Zobel and Talbert, 1984, Kumar et al, 2003), so that trees may not be of same genetic base and we get much so that trees may not be of same genetic base and we get much variation.

In the existing selections, where more than a plus tree in one hectare and many CPTs are there, further analysis was carried out to select superior one among them.

The analysis has been done separately for each division (assuming the climatic conditions within a division more or less are same). Where plus tree and CPTs of a same species has been selected, both are compared jointly so that best can be chosen. The analysis has been done same as in case of new plus trees i.e. firstly convergence into one scale, then weightage to each trait and lastly comparison on the basis of total weightage score of a tree.

Where the evaluation of plus trees were there, the trees above average weighted scores were considered for plus tree and the numbers were selected depending upon the area in which they all are distributed. In case of CPTs and or Candidate Plus Trees, the required numbers were selected on the basis of weighted scores. the area where plus tree and CPTs of a species are within the preferred numbers, analysis was not carried out after field rejection.

CHPTER – 4

RESULTS

A. Evaluation of Existing Plus trees, Candidate Plus Trees and/or Candidate Plus Trees

West Bengal State Forest Department had selected plus trees, Candidate Plus Trees and/or Candidate Plus Trees in different divisions of three circles namely:

1. Silviculture North
2. Silviculture South
3. Silviculture Hills

A.1 EVALUATION OF EXISTING PLUS TREES, CANDIDATE PLUS TREES AND/OR CANDIDATE PLUS TREES IN SILVICULTURE NORTH

The existing trees were there in seven (7) division of the circle, named as follow:

a. **Baikunthpur (BKP)**
b. **Buxa Tiger Reserve (BTR)**
c. **Cooch Bihar (COB)**
d. **Jalpaiguri**
e. **Kurseong**
f. **WL-II**
g. **WL-III**

The details of selected trees along with its evaluation are discussed as follow:

A.1.A Bainkuthpur Division

In the division, a list of 15 plus trees of two species has been observed in the field (Table A.1.A.1).

Table A.1. A.1 Abstract of Plus Trees in Bainkuthpur Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Michelia champaca*	14	0	14	0	14	0
2	*Dalbergia sissoo*	1	0	1	0	1	0
Total		**15**	**0**	**15**	**0**	**15**	**NIL**

A.1.A.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

8 trees out of 9 selected trees were on the road side (can be cut in future due to road expansion and tree not in completion with other trees) and 1 tree was dead due to insect attack. Thus in the division no existing plus trees are there after evaluation.

Table A.1.1 Abstract of Plus Trees Rejected in Bainkuthpur Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Michelia champaca*	8	APAL/MC/5	Aplachand	All the trees were in the road side (within a distance of 2 feet from the road)
			APAL/MC/6	Aplachand	
			APAL/MC/7	Aplachand	
			APAL/MC/8	Aplachand	
			APAL/MC/9	Aplachand	
			APAL/MC/10	Aplachand	
			APAL/MC/11	Aplachand	Insect Attack was observed leading to dying of the tree
			APAL/MC/12	Aplachand	Road side
2.	*Dalbergia sissoo*	1	ADAB/DS/2	Adabari	Road Side

A.1.A.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree) and data was analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.A.2.1 Michelia champaca

After rejection, 6 plus trees were retained in the division for further analysis. The growth data of the same is as follow:

Table A.1.A.2.1.1 Growth data of Plus Trees of *Michelia Champaca* in Baikunthpur Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ODAL-MC-1	33	22	2.05	16	10	10	10	10
ODAL-MC-2	32	21	2.15	12	10	7	7	10
ODAL-MC-3	32	20	1.72	15	13	10	10	10
ODAL-MC-4	30	19	1.85	13	10	10	7	10
ODAL-MC-14	30	21	2	14	12	10	10	10
APAL-MC-13	32	21	1.8	12	6	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed(Annexure-I, Table I.1, I.2 & I.3), as below:

Table A.1.A.2.1.2 Total Weightage Score of plus trees of *Michelia Champaca* in Baikunthpur Division after Rejection

Tree No.	Total Weightage Score
ODAL-MC-1	93.25
ODAL-MC-2	90.75
ODAL-MC-3	79.75
ODAL-MC-4	74.5
ODAL-MC-14	85
APAL-MC-13	84.25

Except APAL-MC-13, all the trees are with in 1 hectare area (Fig. A.1.2A.2.1.1), hence ODAL-MC-1 along with APAL-MC-13 will be retained as plus trees, however remaining trees will be marked as candidate plus trees.

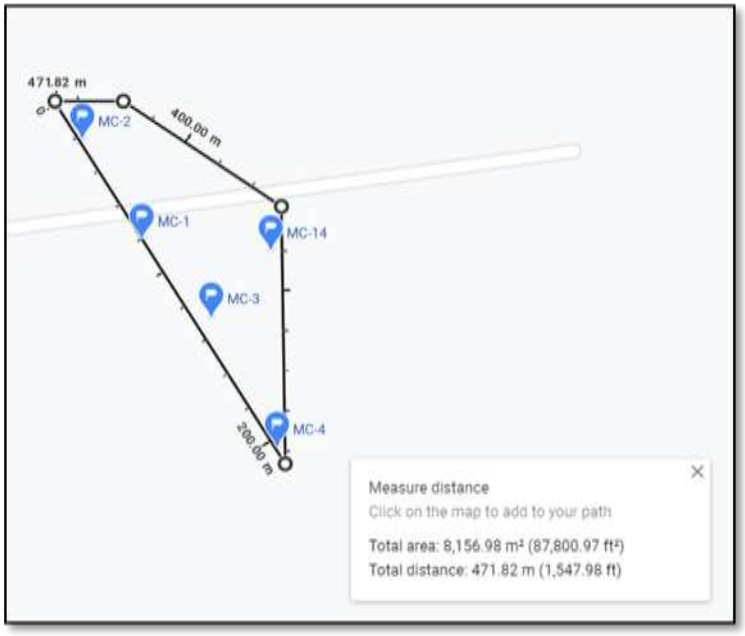


Fig. A.1.A.2.1.1 Area and location of different trees of *Michelia champaca* in baikunthpur Division

A.1.B Buxa Tiger Reserve Division

105 trees of 14 species were found in the field and the growth data of same was taken out of 127 targeted trees of 15 species (Table A.1.B.1). 7 more trees of *Michelia champaca* were found in the division.

Table A.1.B.1 Abstract of Plus Trees in Buxa Tiger Reserve Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Ailanthus grandis*	5	0	5	0	5	0
2	*Amoora wallichii*	1	0	1	0	1	0
3	*Anthocephalus chinensis*	12	0	12	0	12	0
4	*Bombax ceiba*	9	0	8	1	9	0
5	*Cinnamomum cecidodaphne*	2	0	2	0	2	0
6	*Dipterocarpus macrocarpus*	5	0	4	1	5	0
7	*Duabanga sonneratioides*	14	0	8	6	14	0
8	*Lagerstroemia hypoleuca*	5	0	5	0	5	0
9	*Lagerstroemia parviflora*	6	0	6	0	6	0
10	*Michelia champaca*	14	0	14	0	14	0
11	*Schima wallichii*	18	0	18	0	18	0
12	*Tectona grandis*	12	0	10	02	12	0
13	*Terminalia bellirica*	4	0	4	0	4	0
14	*Terminalia myriocarpa*	14	0	8	6	14	0
15	*Xylia dolabriformis*	6	0	0	6	6	0
Total		**127**	**0**	**105**	**22**	**127**	**NIL**

A list of 55 CPTs were provided by the department, out of which 41 trees of 16 species were traceable in the division (Table A.1.B.2).

Table A.1.B.2 Abstract of Candidate Plus Trees in Buxa Tiger Reserve Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acrocarpus fraxinifolius*	2	0	1	1	2	0
2	*Albizia lebbeck*	1	0	0	1	1	0
3	*Amoora rohituka*	1	0	0	1	1	0
4	*Amoora wallichii*	4	0	4	0	4	0
5	*Bischofia javanica*	1	0	1	0	1	0
6	*Canarium sikkimensis*	6	0	5	1	6	0
7	*Gynocardia odorata*	1	0	0	1	1	0
8	*Lagerstroemia parviflora*	2	0	2	0	2	0
9	*Machilus villosa*	1	0	0	1	1	0
10	*Sapindus detergens*	6	0	6	0	6	0
11	*Terminalia arjuna*	5	0	5	0	5	0
12	*Terminalia bellirica*	2	0	1	1	2	0
13	*Terminalia chebula*	8	0	8	0	8	0
14	*Terminalia tomentosa*	9	0	5	4	9	0
15	*Toona ciliata*	5	0	2	3	5	0
16	*Zanthoxylum armatum*	1	0	1	0	1	0
Total		**55**	**0**	**41**	**14**	**55**	**Nil**

A.1.B.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

On the basis of phenotypic character and vicinity (on road, open or in forest), 16 plus trees of 11 species (Table A.1.B.1.1) and 9 CPTs of 5 species (Table A.1.B.1.2) were discarded.

Table A.1.B.1.1 Abstract of Plus Trees Rejected in Buxa Tiger Reserve Division

Sl No.	Species Name	No. of Trees Rejected	Tree Number	Location	Reason for rejecting/ Discarding
1	*Ailanthus grandis*	1	SRAJ/AG/12	SRVK -15	The tree was bent at 3m height, which is not desirable timber character.
2	*Amoora wallichii*	1	SRAJ/AW/10	SRVK-10	The tree is very old, which is not desirable timber character.
3	*Anthocephalus chinensis*	3	SRAJ/AC/12	SRVK-10	Top part damage
			SRAJ/AC/19	SRVK-17	Tree dried
			SRAJ/AC/22	SRVK-20	Tree bend at breast height
4	*Cinnamomum cecidodaphne*	2	CHEK/CC/11	Checko-3	Trees were not strait, a remarkable bend from middle was observed, making it unsuitable as timber tree.
			CHEK/CC/12	Checko-3	Tree was bent at a height of 4 meter from the base, making it unsuitable as timber tree.
5	*Duabanga sonneratioides*	1	SRAJ/DS/1	SRVK-10	Tree Damaged
6	*Lagerstroemia hypoleuca*	1	SRAJ/LH/26	SRVK-10	Tree top was dying
7	*Lagerstroemia parviflora*	2	DAMAN/LP/12	DPO - 4	Not straight, heavy branching was observed.
			DAMAN/LP/13	DPO - 4	Tree top was dead
8	*Michelia Champaca*	1	GADA/MC/36	Gadadhar - 6	Trees were not straight. Clear bole height was very less. Prominent braches start appearing at 6–7 m height.

9	*Tectona grandis*	2	SRAJ/TG/70	SRVK	Tree is bend from 6 mtr.
			SRAJ/TG/79	SRVK	Tree is bend from 9 mtr.
10	*Terminalia bellerica*	1	SRAJ/TB/10	SRVK	Tree was dying due to temite attack.
11	*Terminalia myriocarpa*	1	SRAJ/TM/19	SRVK-8	Top portion was damaged.

Table A.1.B.1.2 Abstract of Candidate Plus Trees Rejected in Buxa Tiger Reserve Division

Sl No.	Species Name	No. of Trees Rejected	Tree Number	Location	Reason for rejecting/ Discarding
1.	*Canarium sikkimensis*	2	SRAJ/CS/1	SRVK-10	Major buttress at ground was observed.
			SRAJ/CS/3	SRVK-9	
2.	*Lagerstroemia parviflora*	2	SRAJ/LP/14	SRVK-8	Both the tree were crooked.
			SRAJ/LP/15	SRVK-8	
3.	*Sapindus detergens*	2	SRAJ/SD/1	SRVK - 10	Tree was not straight and top was broken
			SRAJ/SD/2	SRVK - 10	Tree was totally bent at a height of 3 meter from the base.
4.	*Terminalia chebula*	2	SRAJ/TC/6	SRVK-8	The tree was damaged at two three points in main stem
			SRAJ/TC/9	SRVK-8	The tree was totally crooked.
5.	*Terminalia tomentosa*	1	SRAJ/TT/3	SRVK-1	Tree started drying. Tree was completely leafless.

A.1.B.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate Plus Trees) and data was analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.B.2.1 Acrocarpus fraxinifolius

In totality 1 Candidate Plus Trees of *Acrocarpus fraxinifolius*were found in the division. The trees will be retained as candidate plus trees. The growth data of the same is as follow:

Table A.1.B.2.1.1 Growth Data of Candidate Plus Trees of *Acrocarpus fraxinifolius* in BTR Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AF/2	19	12	2.12	4	8	10	10	10

A.1.B.2.2 *Ailanthus grandis*

In totality 4 plus trees of *Ailanthus grandis* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.2.1 Growth Data of Plus trees of *Ailanthus grandis* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AG/13	32	26	2.20	12	9	10	10	10
SRAJ/AG/14	32	27	2.10	9	12	10	7	10
SRAJ/AG/15	33	27	2.45	12	16	10	10	10
SRAJ/AG/16	31	28	1.86	10	8	10	10	10

After putting all the quantitative traits and qualitative traits in one scale and weightage to each trait on the basis of economic use(Annexure-I, Table I.4, I.5 & I.6), the final score of all the trees are displayed in Table A.1.B.2.2.2.

Table A.1.B.2.2.2 Total Weightage Score of trees of*Ailanthus grandis* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/AG/13	87.5
SRAJ/AG/14	89
SRAJ/AG/15	**96**
SRAJ/AG/16	86.25
Mean	**89.69**

As all the trees are within one hectare area (Fig. **A.1.B.2.2.1**), hence one tree whose score is above baseline score (SRAJ/AG/15) will be retained as plus tree and remaining will be retained as Candidate Plus Trees.

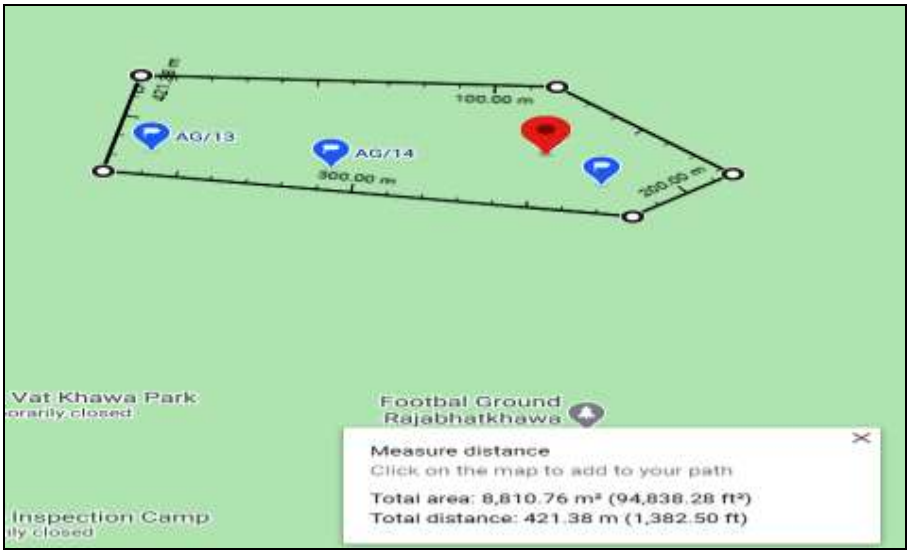


Fig.A.1.B.2.2.1 Area and location of different trees of Ailanthus *grandis* in BTR Division

A.1.B.2.3 *Amora wallichi*

In totality 4 Candidate Plus Trees of *Amora wallichi* were found in the division after rejection. The trees will be retained as candidate plus trees. The growth data of the same is as follow:

Table A.1.B.2.3.1 Growth Data of Candidate Plus Trees of *Amora wallichii* in BTR Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AW/1	22	10	3	9	12	10	10	10
SRAJ/AW/2	20	9	2	7	8	10	10	10
SRAJ/AW/3	23	8	2.18	8	6	10	10	10
SRAJ/AW/4	18	8	1.94	4	6	10	10	10

A.1.B.2.4 *Anthocephalus chinensis*

In totality 9 trees of *Anthocephalus cinensis* were found in the division. The growth data of the same is as follow:

Table A.1.B.2.4.1 Growth data of plus trees of *Anthocephalus chinensis* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AC/13	21	17	1.2	6	10	10	7	10
SRAJ/AC/14	21	17	1.2	6	12	10	7	10
SRAJ/AC/15	20	18	1.13	6	8	7	7	10
SRAJ/AC/16	17	15	1.55	8	7	10	7	10
SRAJ/AC/17	14	11	1.43	6	6	10	7	10
SRAJ/AC/18	16	12	1.62	9	12	10	7	10
SRAJ/AC/20	20	16	1.29	4	5	10	7	10
SRAJ/AC/21	25	22	1.17	7	8	10	7	10
SRAJ/AC/23	20	16	1.45	5	8	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed(Annexure-I, Table I.7, I.8 & I.9)as below:

Table A.1.B.2.4.2 Total Weightage Score of plus trees of *Anthocephalus chinensis* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/AC/13	81.25
SRAJ/AC/14	81.5
SRAJ/AC/15	77
SRAJ/AC/16	82
SRAJ/AC/17	76.25
SRAJ/AC/18	81.5
SRAJ/AC/20	80.5
SRAJ/AC/21	86.5
SRAJ/AC/23	85.25

All the trees were distributed over 2 clusters. In first cluster, trees are distributed within 2 hectare area (Fig. **A.1.B.2.4.1**), henceSRAJ/AC/21 and SRAJ/AC/23 will be retained as plus trees, however SRAJ/AC/16, SRAJ/AC/17, SRAJ/AC/18 and SRAJ/AC/20 will be marked as candidate plus trees. In the second cluster(Fig. **A.1.B.2.4.2**), SRAJ/AC/14 will be retained as plus tree and remaining two SRAJ/AC/13 and SRAJ/AC/15 will be marked as candidate plus trees as are distributed within 1 hectare area.

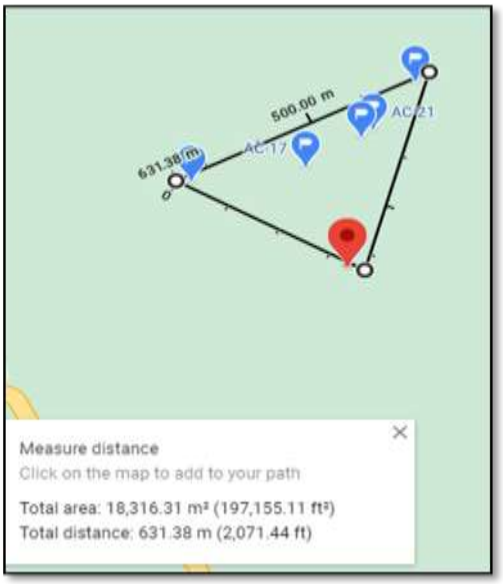


Fig. A.1.B.2.4.1 Area and location of different trees of *Anthocephalus chinensis* in BTR Division

Fig. A.1.B.2.4.2 Area and location of different trees of *Anthocephalus chinensis* in BTR Division

A.1.B.2.5 *Bischofia javanica*

Only one candidate plus tree is there of *Bischofia javanica* in the division, which will be retained after phenotypic appraisal, phenotypic data of which is presented in table A.1.B.2.5.1

Table A.1.B.2.5.1 Growth data of Candidate Plus Tree of *Bischofia javanica* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/BJ/1	20	9	1.56	6.8	9	10	7	10

A.1.B.2.6. *Bombax Ceiba*

In totality 8 trees of *Bombax Ceiba* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.6.1 Growth data of plus trees of *Bombax Ceiba* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHECKO/BC/24	18	15	3.2	8	6	10	10	10
CHECKO/BC/25	17	15	2.1	5	7	10	7	10
CHECKO/BC/26	20	16	3.3	12	10	10	10	10
CHECKO/BC/27	18	14	3	6	6	10	10	10
CHECKO/BC/28	16.5	13	1.76	4.5	9	10	7	10
SRAJ/BC/29	24	21	1.79	4	6	10	10	10
SRAJ/BC/30	24	12	4.29	7	12	10	10	10
SRAJ/BC/31	18	14	2.63	10	12	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed (Annexure-I, Table I.10, I.11& I.12) as below:

Table A.1.B.2.6.2. Total Weightage Score of plus trees of *Bombax Ceiba* in BTR west Division after Rejection

Tree No.	Total Weightage Score
CHECKO/BC/24	84.25
CHECKO/BC/25	74
CHECKO/BC/26	90.75
CHECKO/BC/27	84
CHECKO/BC/28	76.75
SRAJ/BC/29	90.25
SRAJ/BC/30	91.25
SRAJ/BC/31	83.25

5 trees were closely distributed within 1 hectare area (Fig. **A.1.B.2.6.1**). Hence CHECKO/BC/26 will be retained as plus tree, however CHECKO/BC/24, CHECKO/BC/25, CHECKO/BC/27, CHECKO/BC/28 and SRAJ/BC/29 will be marked as candidate plus trees. SRAJ/BC/30 and SRAJ/BC/31 are very far with each other, hence will be retained as plus trees (Fig. **A.1.B.2.6.2**).

Fig. A.1.B.2.6.1 Area and location of different trees of *Bombax ceiba* in BTR Division

Fig. A.1.B.2.6.2 Area and location of different trees of *Bombax ceiba* in BTR Division

A.1.B.2.7 *Canarium sikkimensis*

In totality 3 Candidate Plus Trees of *Canarium sikkimensis*will be retained in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.7.1 Growth Data of Candidate Plus Trees of *Canarium sikkimensis* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/CS/2	22	10	2.4	10	9	10	10	10
SRAJ/CS/5	20	3	1.47	9	12	10	7	10
SRAJ/CS/6	21	3.5	2.12	12	15	7	10	10

A.1.B.2.8 *Dipterocarpus macrocarpus*

In totality 4 plus trees of *Dipterocarpus macrocarpus* were found in the division. No rejection was there. The growth data of the same is as follow:

Table A.1.B.2.8.1 Growth Data of Plus Trees of *Dipterocarpus macrocarpus* in BTR west Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DAMAN/DM/5	30	28	1.65	8	6	10	10	10
DAMAN/DM/6	30	27	1.35	5	7	10	10	10
DAMAN/DM/8	30	28	1.65	5	6	10	10	10
DAMAN/DM/9	34	32	1.85	12	10	10	7	10

After incorporating scores and weightage for all traits in one scale (Annexure I, Table I.13, I.14 & I.15), the final score of each plus tree is presented in table A.1.B.2.8.2.

Table A.1.B.2.8.2 Total Weightage Score of trees of *Dipterocarpus macrocarpus*in BTR Division

Tree No.	Total Weightage Score
DAMAN/DM/5	82.5
DAMAN/DM/6	76.25
DAMAN/DM/8	82
DAMAN/DM/9	95

As all the trees are located within 1.34 hectare area (Fig. **A.1.B.2.8.**1), hence two trees will be retained (DAMAN/DM/9 and DAMAN/DM/5)as plus trees and the remaining will be remarked as Candidate Plus Trees.

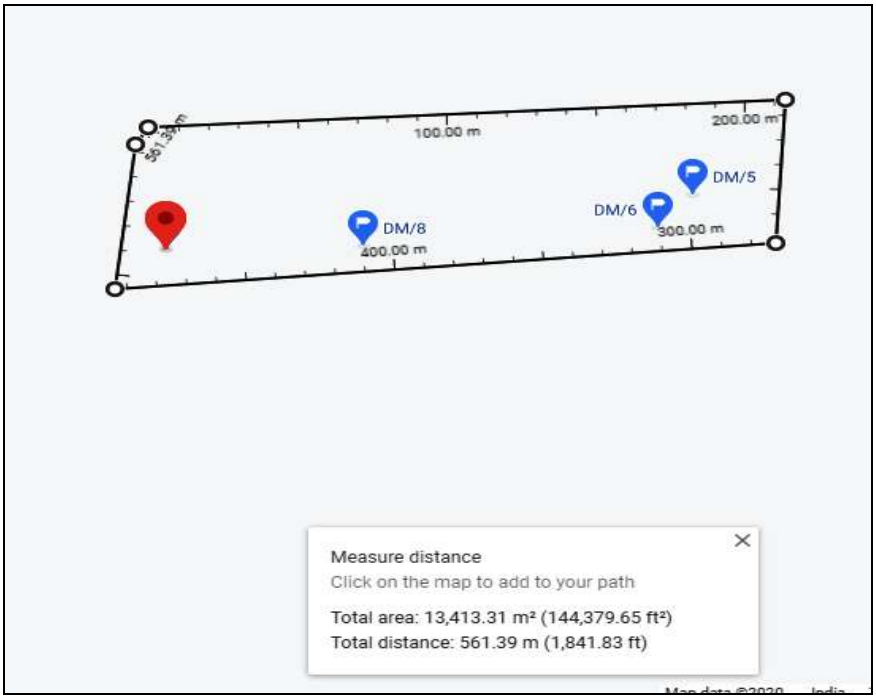


Fig. A.1.B.2.8.1 Area and location of different trees of *Dipterocarpusmacrocarpus*in BTR Division

A.1.B.2.9 *Duabanga sonneratioides*

In totality 7plus trees of *Duabanga sonneratioides* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.9.1 Growth data of Plus Trees of *Duabanga sonneratioides* in BTR west Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/DS/2	29	25	1.5	8.5	15	10	10	10
SRAJ/DS/3	25	13	1.7	8	6	7	7	10
SRAJ/DS/4	25	17	2.1	12	13	10	10	10
SRAJ/DS/5	28	22	1.9	9	7	10	7	10
SRAJ/DS/6	20	14	1.75	7	13	10	10	10
SRAJ/DS/7	20	15	1.83	7	8	10	10	10
SRAJ/DS/8	21	3.5	1.56	7	9	7	7	10

After scoring and giving weightage to each trait (Annexure-I, Table I.16, I.17 & I.18) the final score of each tree is as follow:

Table A.1.B.2.9.2 Total Weightage Score of trees of *Duabanga sonneratioides* in BTR west Division

Tree No.	Total Weightage Score
SRAJ/DS/2	91.25
SRAJ/DS/3	75
SRAJ/DS/4	92.75
SRAJ/DS/5	90
SRAJ/DS/6	84.75
SRAJ/DS/7	84.25
SRAJ/DS/8	67.25

All the trees are within 1 hectare (Fig. A.1.B.2.9.1), hence only one tree will be retained as plus tree (SRAJ/DS/4) and remaining will be marked as Candidate Plus Trees.

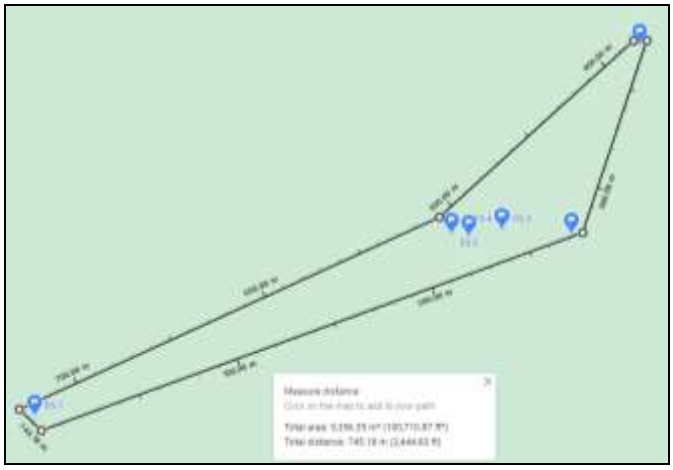


Fig. A.1.B.2.9.1 Area and location of different trees of *Duabanga sonneratioides* in BTR Division

A.1.B.2.10 *Lagerstroemia hypoluca*

In totality 4 trees of *Lagerstroemia hypoluca*were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.10.1 Growth data of plus trees of *Lagerstroemia hypoluca* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/LH/27	18	15	2.53	7	6	10	10	10
SRAJ/LH/28	16	10	2.12	6	8	10	7	10
SRAJ/LH/29	18	14	2.1	6	6	10	10	10
SRAJ/LH/30	18	11	1.93	7	6	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed (Annexure-I, Table I.19, I.20 & I.21) as below:

Table A.1.B.2.10.2 Total Weightage Score of plus trees of *Lagerstroemia hypoluca* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/LH/27	99.5
SRAJ/LH/28	69.75
SRAJ/LH/29	90.5
SRAJ/LH/30	83.5

All the trees are within 1 hectare area(Fig. A.1.B.2.10.1),hence, SRAJ/LH/27 will be retained as plus trees and remaining 3 will be marked as candidate plus trees.

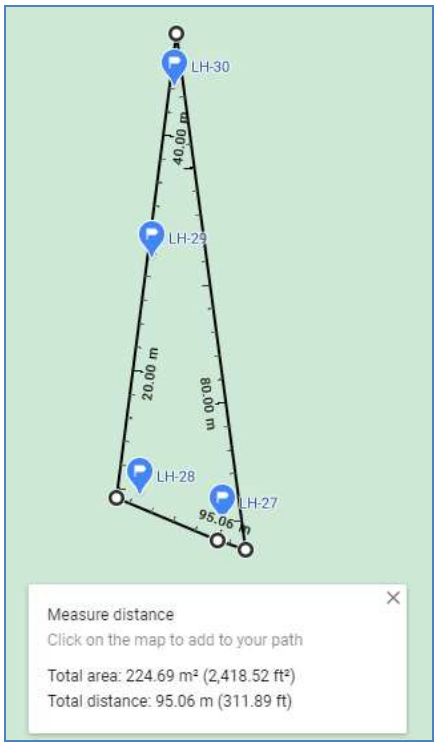


Fig. A.1.B.2.10.1 Area and location of different trees of *Lagerstroemia hypoluca* in BTR Division

A.1.B.2.11 *Lagerstroemia parviflora*

In totality 4 trees of *Lagerstroemia parviflora*were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.11.1 Growth data of plus trees of *Lagerstroemia parviflora* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/LP/8	22	17	2.19	4	6	10	10	10
SRAJ/LP/9	20	10	1.95	6	14	10	7	10
SRAJ/LP/10	18	8	2.04	10	14	10	10	10
SRAJ/LP/11	18	8.5	1.78	7	10	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed (Annexure-I, Table I.22, I.23 & I.24) as below:

Table A.1.B.2.11.2 Total Weightage Score of plus trees of *Lagerstroemia parviflora* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/LP/8	98
SRAJ/LP/9	77.25
SRAJ/LP/10	84
SRAJ/LP/11	77

All the trees are distributed in two clusters and trees within the cluster are close to each other (Fig.A.1.B.2.11.1 and Fig. A.1.B.2.11.2), however both clusters are far away from each other having arial distance of 1.91 km. Hence SRAJ/LP/8 and SRAJ/LP-10 will be retained as plus trees, however remaining will be marked as candidate plus trees (Fig. A.1.B.2.11.3).

Fig. A.1.B.2.11.1 Area and location of different trees of *Lagerstroemia parviflora* in BTR Division

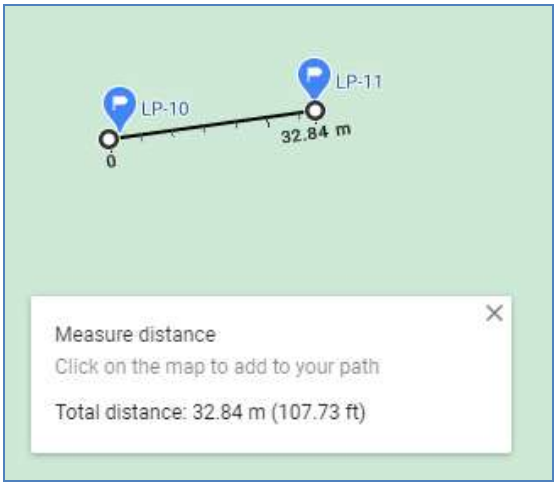


Fig. A.1.B.2.11.2 Area and location of different trees of *Lagerstroemia parviflora* in BTR Division

Fig. A.1.B.2.11.3 Area and location of different trees of *Lagerstroemia parviflora* in BTR Division

A.1.B.2.12 *Michelia Champaca*

Out of 14 plus trees, 13 trees of *Michelia Champaca* will be taken for further comparison after rejection. The phenotypic data of the 13 trees are presented:

Table A.1.B.2.12.1 Growth Data of Plus Trees of *Michelia Champaca* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
GADA/MC/29	25	18	2	11	8	10	10	10
GADA/MC/30	18	14	1.85	12	10	7	7	10
GADA/MC/31	23	17	2.45	16	10	10	10	10
GADA/MC/32	24	18	2.5	16	11	10	7	10
GADA/MC/33	29	22	1.95	13.2	10	10	10	10
GADA/MC/34	25	12.5	2	10	5	10	7	10
GADA/MC/35	26	22	2	9	5	10	10	10
GADA/MC/37	26	13	2	13	9	7	7	10
GADA/MC/38	28	18	2.3	20.5	8	10	10	10
CHECKO/MC/25	24	12	2.03	8	8	10	10	10
CHECKO/MC/26	23	12	2.27	8	8	7	7	10
CHECKO/MC/27	18	6	2.46	8	11	10	10	10
CHECKO/MC/28	20	8	2.2	14	5	7	7	10

After scoring and giving weightage to each trait (Annexure-I, Table I.25, I.26& I.27), the final score of each tree is as follow:

Table A.1.B.2.12.2 Total Weightage Score of trees of *Michelia Champaca* in BTR west Division after Rejection

Tree No.	Total Weightage Score
GADA/MC/29	85.25
GADA/MC/30	71.75
GADA/MC/31	92
GADA/MC/32	87.5
GADA/MC/33	90.75
GADA/MC/34	76.5
GADA/MC/35	88.5
GADA/MC/37	76
GADA/MC/38	90.25
CHECKO/MC/25	83.25
CHECKO/MC/26	76.25
CHECKO/MC/27	82.5
CHECKO/MC/28	73

In Gadadhar location, as the trees are spread over an area more than 6 hectare (Fig. A.1.B.2.12.1), hence 7 trees (except except GADA/MC/30 and GADA/MC/37) will be retained as plus trees and remaining will be marked as Candidate Plus Trees.CHECKO/MC/25, CHECKO/MC/27 and CHECKO/MC/28 are within 1 hectare area(Fig. A.1.B.2.12.2), hence CHECKO/MC/25 will be retained as plus tree and remaining 2 will be marked as candidate plus trees. CHECKO/MC/26 is far away from remaining trees (more than 500m) , hence will be retained as plus tree.

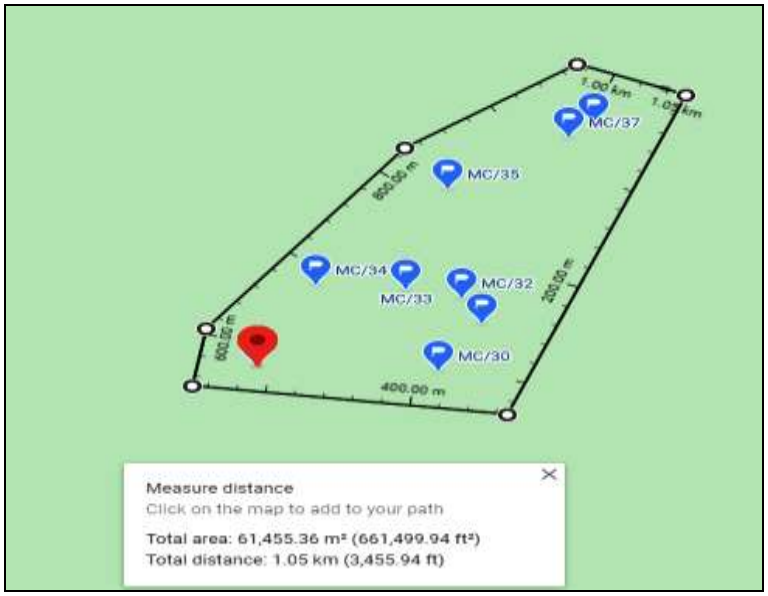


Fig. A.1.B.2.12.1 Area and location of different trees of *Michelia champaca* atGadadhar Location in BTR Division

Fig. A.1.B.2.12.2 Area and location of different trees of *Michelia champaca* at Checko Location in BTR Division

A.1.B.2.13 *Sapindus detergens*

In totality 4 Candidate Plus Trees of *Sapindus detergens*were found in the division after rejection. All the trees will be retained as Candidate Plus Trees. The growth data of the same is as follow:

Table A.1.B.2.13.1 Growth Data of Candidate Plus Trees of *Sapindus detergens* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/SD/3	15	3.5	1.05	6	9	7	10	10
SRAJ/SD/4	22	12	1.12	7	10	10	10	10
SRAJ/SD/5	23	8	1.15	5	8	7	10	10

SRAJ/SD/6	20	9	1	9	5	10	7	10

A.1.B.2.14 *Schima wallichii*

In totality 18 plus trees of *Schima wallichii* were there in the division. The growth data of the same is as follow:

Table A.1.B.2.14.1 Growth Data of Plus Trees of *Schima wallichii* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AW/18	16	12	2	5	7	7	7	10
SRAJ/AW/19	22	8	2.15	10	16	10	10	10
SRAJ/AW/20	17	9	1.91	4	7	10	7	10
SRAJ/AW/21	16	6	1.85	8	10	10	10	10
SRAJ/AW/22	20	10	2.04	6	6	10	7	10
SRAJ/AW/23	20	12	1.94	5	8	7	7	10
SRAJ/AW/31	20	8	1.73	2.5	6	7	7	10
SRAJ/AW/32	19	8.5	1.47	4	4	10	7	10
SRAJ/AW/33	20	12	1.3	5	8	10	7	10
SRAJ/AW/34	16	8	1.16	3.5	8	10	7	10
SRAJ/AW/35	15	8.5	1.47	4	4	10	7	10
SRAJ/AW/38	20	9	2.08	7	8	10	7	10
CHEC/SW/24	16	8	1.5	4.5	10	10	7	10
CHEC/SW/25	18	10	1.54	6	8	10	7	10
CHEC/SW/26	14	8	1.69	4.5	7	10	7	10
CHEC/SW/27	18	9	1.56	6	8	10	7	10
CHEC/SW/28	16	10	1.56	6	12	10	7	10
CHEC/SW/29	16	9	1.53	4	7	7	7	10

After scoring in same scale and giving weightage according to economic use(Annexure-I, Table I.28, I.29 & I.30), the final score of the trees are as follow:

Table A.1.B.2.14.2 Total Weightage Score of trees of *Schima wallichii* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/AW/18	86.25
SRAJ/AW/19	77.75
SRAJ/AW/20	82.25
SRAJ/AW/21	84.75
SRAJ/AW/22	75.5
SRAJ/AW/23	77.75
SRAJ/AW/31	89
SRAJ/AW/32	77.75

SRAJ/AW/33	83.5
SRAJ/AW/34	78
SRAJ/AW/35	83.5
SRAJ/AW/38	84.25
CHEC/SW/24	75.25
CHEC/SW/25	85
CHEC/SW/26	94
CHEC/SW/27	83.5
CHEC/SW/28	84.75
CHEC/SW/29	90.75

All the selected trees lie within two hectare areain WRVK location (Fig. A.1.B.2.14.1), hence only 2 tree (SRAJ/AW/18 & SRAJ/AW/21) will be retained as plus tree and the remaining as Candidate Plus Trees. In DPO location (Fig. A.1.B.2.14.2), all the trees are located over a large area, hence all will be retained as plus trees. SRAJ/AW/38 is located in other location, hence will be retained as plus tree. All the trees are located over 7 hectare area (Fig. A.1.B.2.14.3), hence all the trees in checko location will be retained as plus trees.

Fig. A.1.B.2.14.1 Area and location of different trees of *Schima wallichii* in WRVK Location in BTR Division

Fig. A.1.B.2.14.2 Area and location of different trees of *Schima wallichii* in DOP Location in BTR Division

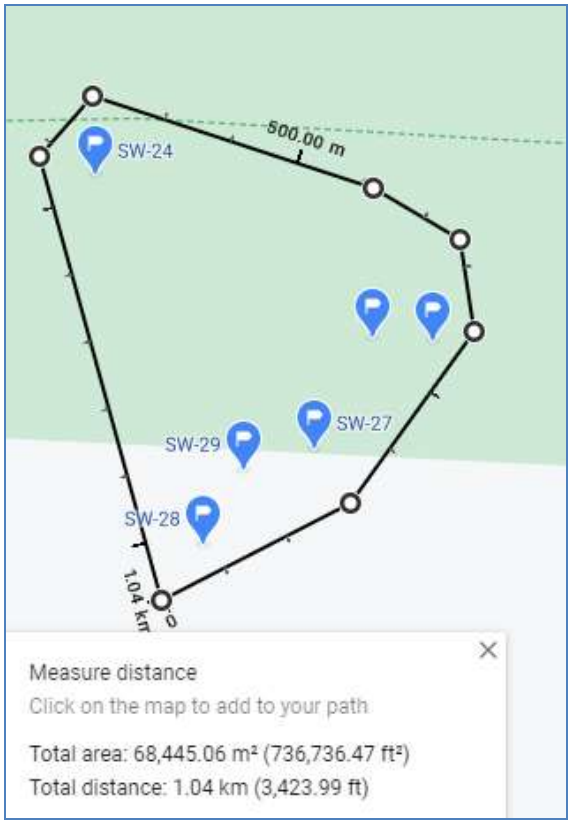


Fig. A.1.B.2.14.3 Area and location of different trees of *Schima wallichii* in Checko Location in BTR Division

A.1.B.2.15 *Tectona grandis*

In totality 8 plus trees of *Tectona grandis* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.15.1 Growth data of plus trees of *Tectona grandis* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TG/69	18	15	1.06	3	4	10	10	10
SRAJ/TG/71	22	15	1.4	5	10	10	7	10
SRAJ/TG/72	19	15	1.39	4	4	10	10	10
SRAJ/TG/73	17	13	1.25	3	3	10	10	10
SRAJ/TG/74	18	15	1.26	4	5	10	7	10
SRAJ/TG/75	17	14	1.38	4	6	7	10	10
SRAJ/TG/76	18	14	1.31	5	8	10	10	10
SRAJ/TG/77	16	12	1.18	3	4	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed (Annexure-I, Table I.31, I.32 & I.33), as below:

Table A.1.B.2.15.2 Total Weightage Score of plus trees of *Tectona grandis* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/TG/69	85.75
SRAJ/TG/71	95.5
SRAJ/TG/72	95.75
SRAJ/TG/73	82.25
SRAJ/TG/74	86
SRAJ/TG/75	86.5
SRAJ/TG/76	91.25
SRAJ/TG/77	78.25

All the trees are distributed within 2 hectare area (Fig. A.1.B.2.15.1),hence SRAJ/TG/72 and SRAJ/TG/71 will be retained as plus trees and remaining will be marked as candidate plus trees.

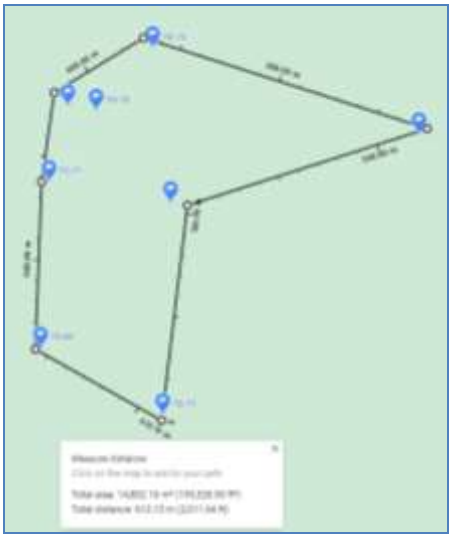


Fig. A.1.B.2.15.1 Area and location of different trees of *Tectona grandis* in BTR Division

A.1.B.2.16 *Terminalia arjuna*

Five (5) candidate plus tree of *Terminalia arjuna* were found in the division and will be retained as CPT after phenotypic appraisal. The growth data of the same is as follow:

Table A.1.B.2.16.1 Growth Data of Candidate Plus Tree of *Terminalia arjuna* in BTR Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TA/1	18	8	1.85	6	7	7	7	10
SRAJ/TA/2	18	9	1.59	8	5	0.95	10	7
SRAJ/TA/3	18	10	1.52	4	5	1	10	7
SRAJ/TA/4	18	8	1.85	6	10	0.75	10	7
SRAJ/TA/5	16	8	1.29	7	6	1.5	10	7

A.1.B.2.17 *Terminalia bellirica*

In totality 3 Plus trees and 1 CPT of *Terminalia bellirica* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.17.1 Growth data of Plus trees of *Terminalia bellirica* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TB/11	**16**	**8**	**2.01**	**10**	**18**	**10**	**10**	**10**
SRAJ/TB/12	**18**	**10**	**1.55**	**8**	**12**	**10**	**10**	**10**
SRAJ/TB/13	**18**	**8**	**2.26**	**12**	**18**	**7**	**10**	**10**
SRAJ/TB/2	24	18	2.03	11	15	7	7	10

**Bold trees are of Plus trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait and finally the total weightage score was computed(Annexure-I, Table I.34, I.35 & I.36), as below:

Table A.1.B.2.17.2 Total Weightage Score of Plus trees and Candidate Plus trees of *Terminalia bellirica* in BTR west Division after Rejection

Tree No.	Total Weightage Score
SRAJ/TB/11	83.5
SRAJ/TB/12	79.75
SRAJ/TB/13	83
SRAJ/TB/2	88.5

All the plus trees are distributed over 2hectare area (Fig. A.1.B.2.17.1), hence all will be retained as plus trees, hover as for comparison 7 trees are required, hence SRAJ/TB/2 will be retained as candidate plus tree.

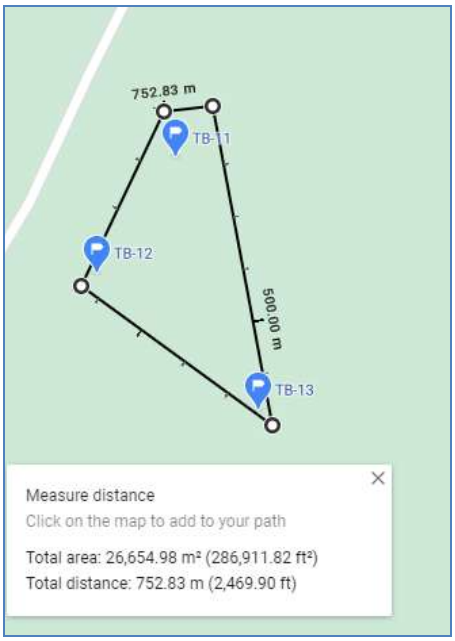


Fig. A.1.B.2.17.1 Area and location of different trees of *Terminalia bellirica* in BTR Division

A.1.B.2.18 *Terminalia chebula*

6 candidate plus trees of *Terminalia chebula* were found in the division after rejection. All the trees will be retained as Candidate Plus Trees. The growth data of the same is as follow:

Table A.1.B.2.18.1 Growth data of Candidate Plus Trees of *Terminalia chebula* in BTR after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TC/4	25	15	1.5	9	8	10	10	10
SRAJ/TC/7	24	11	1.12	8	6	7	10	10
SRAJ/TC/8	18	7	1.2	5	6	7	7	10
SRAJ/TC/2	15	10	1.37	8	10	10	10	10
SRAJ/TC/3	18	11	1.95	6	10	10	10	10
SRAJ/TC/5	17	10	1.51	10	8	10	10	10

A.1.B.2.19 *Terminalia myriocarpa*

In totality 7plus trees of *Terminalia myriocarpa*were found in the division after rejection. The growth data of the same is as follow:

Table A.1.B.2.19.1 Growth Data of Plus Trees of *Terminalia myriocarpa* in BTR west Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TM/18	17	13	1.25	10	3	7	10	10
SRAJ/TM/20	21	12	1.35	7	12	10	10	10
SRAJ/TM/23	18	10	1.38	8	8	10	10	10
SRAJ/TM/24	16	10	1.22	9.6	6	7	10	10
SRAJ/TM/25	23	11	1.25	6.5	7	7	10	10
SRAJ/TM/26	19	9	1.15	10	8	7	7	10
SRAJ/TM/27	17	15	1.2	10	9	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.37, I.38 & I.39) and finally the total weightage score was computed as below:

Table A.1.B.2.19.2 Total Weightage Score of trees of *Terminalia myriocarpa* in BTR Division after Rejection

Tree No.	Total Weightage Score
SRAJ/TM/18	82.5
SRAJ/TM/20	91.5
SRAJ/TM/23	91
SRAJ/TM/24	76.75
SRAJ/TM/25	86
SRAJ/TM/26	71.5
SRAJ/TM/27	76.75

All the trees are located within 3 hectare area(Fig. A.1.B.2.19.1), hence 3 trees (SRAJ/TM/20, SRAJ/TM/23 and SRAJ/TM/25) will be retained as plus tree and others as Candidate Plus Trees.

Fig. A.1.B.2.19.1 Area and location of different trees of *Terminalia myriocarpa* in BTR Division

A.1.B.2.20 *Terminalia tomentosa*

In totality 4 Candidate Plus Trees of *Terminaliatomentosa*were found in the division after rejection. The trees will be retained as candidate plus trees. The growth data of the same is as follow:

Table A.1.B.2.20.1 Growth Data of Candidate Plus Trees of *Terminalia tomentosa* in BTR Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TT/1	22	17	1.95	7	5	10	10	10
SRAJ/TT/2	20	14	1.85	10	11	10	10	10
SRAJ/TT/4	18	9	1.25	5.5	3	7	10	10
SRAJ/TT/5	22	18	1.8	7.5	9	10	7	10

A.1.B.2.21 *Toona ciliata*

In totality 2 trees of *Toona ciliata*were found in the division and were phenotypical superior. Both the trees will be retained as Candidate Plus Trees. The growth data of the same is as follow:

Table A.1.B.2.21.1 Growth data of Candidate Plus Trees of *Toona ciliata* in BTR Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHEC/TC/5	22	8	1.97	14	12	7	10	10
CHEC/TC/2	20	9	1.8	10	9	7	10	10

A.1.B.2.22 *Zanthoxylum armatum*

In totality 1 Candidate Plus Trees of *Zanthoxylum armatum* were found in the division. The trees will be retained as candidate plus trees. The growth data of the same is as follow:

Table A.1.B.2.22.1 Growth Data of Candidate Plus Trees of *Zanthoxylum armatum* in BTR Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SRAJ/ZB/1	16	8	1.76	5	8	10	10	10

Plus Tree of *Dipterocarpus macrocarpus* at DPO-3

Plus Tree of *Michelia champaca* at Gadadhar-6

Plus Tree of *Ailanthus grandis* at SRVK-18

Plus Tree of *Schima wallichiii* at Cheko-6

Fig. A.1.B.1 Glimpse of Existing Plus Trees in BTR (W) Division

CPT Tree of *Canarium sikkimensis* at SRVK-9

CPT Tree of *Canarium sikkimensis* at SRVK-10

CPT Tree of *Sapindus setergents* at SRVK-8

CPT Tree of *Terminalia tomentosa* at SRVK-1

Fig. A.1.B.2 Glimpse of Existing Candidate Plus Trees in BTR (W) Division

A.1.C Cooch Bihar Division

Out of listed 32 plus trees of 4 species, only 13 trees of 2 species (Table A.1.C.1) have been observed in the field. 2 candidate plus trees were traceable in the field (Table A.1.C.2).

Table A.1.C.1 Abstract of Plus Trees in Cooch Bihar Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	E	f	g (e+ f)	h
1	*Bombax ceiba*	5	0	5	0	5	0
2	*Dalbergia sissoo*	3	0	0	3	3	0
3	*Gmelina arborea*	18	0	8	10	18	0
4	*Tectona grandis*	6	0	0	6	6	0
Total		**32**	**0**	**13**	**19**	**32**	**Nil**

Table A.1.C.2 Abstract of Candidate Plus Trees in Cooch Bihar Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	E	f	g (e+ f)	h
1	*Terminalia arjuna*	5	0	2	3	5	0
Total		**5**	**0**	**2**	**3**	**5**	**Nil**

A.1.C.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

3 trees of 2 species have been discarded in the field on the basis of phenotypical appearance (Table C.1.1).

Table C.1.1 Abstract of Plus Trees Rejected inCooch Bihar Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Bombax ceiba*	1	ATIA/BC/16	Atiamochar	The tree was found bent from middle
2	*Gmelina arborea*	2	ATIA/GA/36	Atiamochar	Tree was crooked.
			ATIA/GA/38	Atiamochar	The tree top was found broken and damaged.

A.1.C.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate Plus Trees) and data was analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.C.2.1 *Bombax ceiba*

Out of 5,four plus trees were retained for further analysis on the basis of phenotypic characters. The data on growth traits is presented in table A.1.C.2.1.1.

Table A.1.C.2.1.1 Growth Data of Plus Trees of *Bombax ceiba* in Cooch Bihar Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ATIA/BC/17	21	16	2	12	7	10	10	10
ATIA/BC/18	25	22	1.75	14	3	10	10	10
ATIA/BC/19	20	16	1.51	5	4	10	10	10
ATIA/BC/20	21	17	2.46	8	7	10	10	10

After scaling and weightage (Annexure-I, Table I.40, I.41, I.42), total score of the trees are as follow:

Table A.1.C.2.1.2 Total Weightage Score of trees of *Bombax ceiba* in Cooch Bihar Division

Tree No.	Total Weightage Score
ATIA/BC/17	83.25
ATIA/BC/18	93
ATIA/BC/19	76.25
ATIA/BC/20	86.75

As both the trees are spread over 3 hectare area (Fig. A.1.C.2.1.1), hence ATIA/BC/17, ATIA/BC/18 and ATIA/BC/20 will be retained as plus trees and ATIA/BC/19 will be marked as candidate plus trees.

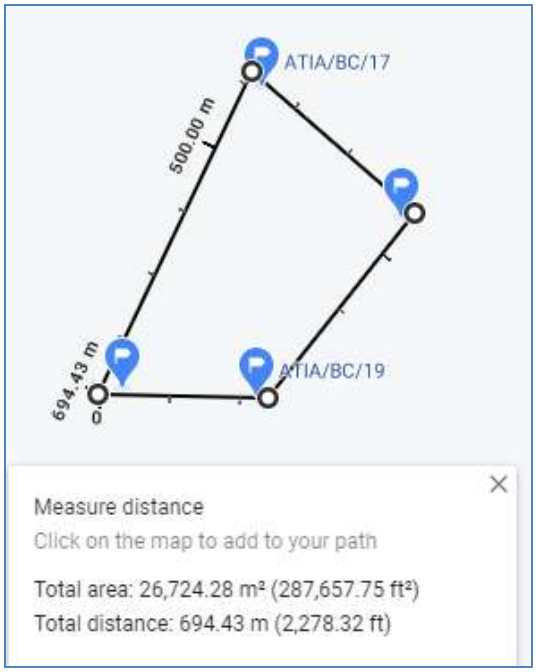


Fig. A.1.C.2.1.1 Area and location of different trees of *Bombax ceiba* in Cooch Bihar Division

A.1.C.2.2 *Gmelina arborea*

Out of 8 plus trees, 6 trees have been selected on the basis of phenotypic traits for further analysis. Growth data of same has been presented in the table A.1.C.2.2.1.

Table A.1.C.2.2.1 Growth Data of Plus Trees of *Gmelina arborea* in Cooch Bihar Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ATIA/GA/32	13	8	1.8	6	5	10	7	10
ATIA/GA/33	14	11	1.1	5	4	10	10	10
ATIA/GA/34	15	8	2	8	5	10	10	10
ATIA/GA/35	15	12	1.75	8	8	10	10	10
ATIA/GA/37	13	9.5	1.6	8	7	10	7	10
ATIA/GA/46	14	9	1.55	4	3	10	10	10

The weightage score after scoring all the traits into in scale and giving weightage (Annexure-I, Table I.43, I.44& I.45) is as below:

Table A.1.C.2.2.2 Total Weightage Score of trees of *Gmelina arborea* in Cooch Bihar Division

Tree No.	Total Weightage Score
ATIA/GA/32	78.25
ATIA/GA/33	85.5
ATIA/GA/34	91.25
ATIA/GA/35	97.75
ATIA/GA/37	81
ATIA/GA/46	87

As all trees are found within 1.3 hectare area (Fig A.1.C.2.2.1), only 2 trees (ATIA/GA/34 and ATIA/GA/35) will be retained as plus trees and other as Candidate Plus Trees.

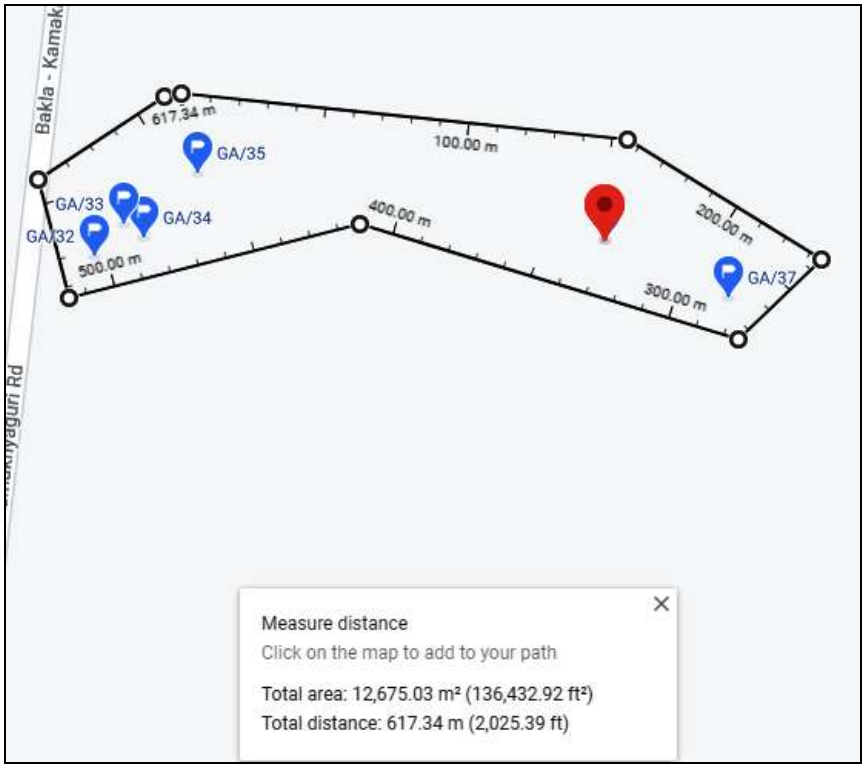


Fig. A.1.C.2.2.1 Area and location of different trees of *Gmelina arborea* in Cooch Bihar Division

A.1.C.2.3 *Terminalia arjuna*

Two (2) candidate plus tree of *Terminalia arjuna* were found in the division and will be retained as CPT after phenotypic appraisal. The growth data of the same is as follow:

Table A.1.C.2.3.1 Growth Data of Candidate Plus Tree of *Terminalia arjuna* in Cooch Bihar Division

Tree No.	Quantitative Traits						Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark thickness	Stem Straightness	Stem Form	Infection
CENT/TA/6	13.5	6	1.64	7	14	0.75	7	10	10
CENT/TA/7	15	6	1.62	5	8	0.95	10	10	10

A.1.D JALPAIGURI DIVISION

Out of 188 plus trees of 24 species, 177 trees were actually found in the field (Table A.1.D.1). Likewise 17 Candidate Plus Trees out of 26 were there in the division, as presented in table A.1.D.2.

Table A.1.D.1 Abstract of Plus Trees in Jalpaiguri Division

Sl. No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia catechu*	3	0	3	0	3	0
2	*Ailanthus grandis*	3	0	3	0	3	0
3	*Albizia procera*	3	0	3	0	3	0
4	*Amoora wallichii*	7	0	6	1	7	0
5	*Bombax ceiba*	8	0	8	0	8	0
6	*Canarium sikkimensis*	1	0	1	0	1	0
7	*Chukrasia tabularis*	18	0	18	0	18	0
8	*Cinnamomum cecidodaphne*	1	0	1	0	1	0
9	*Dalbergia sissoo*	14	0	8	6	14	0
10	*Pterocarpus marsupium*	4	0	4	0	4	0
11	*Dipterocarpus turbinatus*	8	0	8	0	8	0
12	*Gmelina Arborea*	21	0	18	3	21	0
13	*Lagerstroemia flos reginae*	18	0	18	0	18	0
14	*Lagerstroemia parviflora*	9	0	9	0	9	0
15	*Michelia Champaca*	8	0	8	0	8	0
16	*Schima wallichii*	14	0	14	0	14	0
17	*Shorea*	1	0	1	0	1	0

	robusta						
18	*Sterculia villosa*	4	0	4	0	4	0
19	*Swietenia mahagoni*	4	0	4	0	4	0
20	*Tectona grandis*	25	0	24	1	25	0
21	*Terminalia bellirica*	4	0	4	0	4	0
22	*Terminalia Tomentosa*	3	0	3	0	3	0
23	*Toona ciliata*	2	0	2	0	2	0
24	*Xylia dolabriformis*	3	0	3	0	3	0
Total		**188**	**0**	**177**	**11**	**188**	**Nil**

Table A.1.D.2 Abstract ofCandidate Plus Trees in Jalpaiguri Division

Sl. No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Anthocephalus cadamba*	2	0	2	0	2	0
2	*Bombax ceiba*	1	0	1	0	1	0
3	*Dipterocarpus macrocarpus*	1	0	1	0	1	0
4	*Lophopetalum fimbriatum*	1	0	1	0	1	0
5	*Machilus villosa*	2	0	2	0	2	0
6	*Michelia champaca*	1	0	1	0	1	0
7	*Sapium baccatum*	1	0	1	0	1	0
8	*Terminalia arjuna*	1	0	1	0	1	0
9	*Terminalia bellirica*	2	0	2	0	2	0
10	*Terminalia chebula*	11	0	2	9	11	0
11	*Terminalia tomentosa*	1	0	1	0	1	0

Total	26	0	17	9	26	Nil

A.1.D.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

On the basis of phenotypic appearance of the tree and other factors like road side or in forest, the direct rejection of 36 plus trees of 18 species was done (Table A.1.D.1.1) along with5 candidate plus tree of 4 species(A.1.D.1.2).

Table A.1.D.1.1 Abstract of Plus Trees Rejected in Jalpaiguri Division

Sl. No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Acacia catechu*	2	DIANA/AC/2	DIANA	The tree was found dead.
			PANJ/AC/1	Panijhora	Tree was severely damaged by elephants.
2	*Ailanthus grandis*	2	CMOR-AG-9	CMG-7	The tree was found dead.
			CMOR/AG/10	CMG-7	The tree was found dead.
3	*Amoora wallichii*	1	SMOR/AW/4	Smg-7	Tree was bent at a height of 8 meter above the ground height, making it unsuitable as timber tree.
4	*Bombax ceiba*	2	RETI/BC/6	Reti - 1	Tree had fallen.
			DIANA/BC/14	Sulkapara	The roots became naked and top portion started dying.
5	*Chukrasia tabularis*	5	CENT/CT/24	Central-3	The tree is crooked.
			CENT/CT/25	Central-3	The tree is bend at 12 m from ground height .
			CMOR-CT-28	SMG-3	Tree top is severely damaged.
			CMOR-CT-29	SMG-3	Tree was found cut from the base.
			CMOR/CT/30	SMG-3	Tree fallen due to storm
6	*Dalbergia sissoo*	5	PANJ/DS/5	Panijhora	Tree was dead.
			PANJ/DS/6	Panijhora	Tree was dead.
			PANJ/DS/7	Panijhora	Tree was dead.
			PANJ/DS/8	Panijhora	Tree was dead.
			DIANA/DS/21	Diana	Tree was dead.
7	*Gmelina*	1	RETI/GA/27	Reti/1	Felling

	arborea				
8	*Pterocarpusmarsupium*	1	CMOR/DM/4	SMG-3	Tree was dry and dead.
9	*Dipterocarpus turbinatus*	2	CMOR/DT/3	CMG/11	The tree top was broken.
			SMOR/DT/1	SMG-7	Tree was damaged.
10	*Schima wallichii*	3	SMOR/SW/2	Khutimari	Cut from the base
			SMOR/SW/3	Khutimari	Cut from the base
			SMOR/SW/4	Khutimari	Dried and dead.
11	*Terminalia tomentosa*	1	SURS/TT/23	Sursuti-2	Tree was drying. Upper portion was damaged.
12	*Toona ciliata*	1	SURS/TC/1	Sursuti	Upper part damaged and bending was observed at a height of 3 meter.
13	*Lagerstroemia flos reginae*	2	PANJ-LF-16	Panijhora	Crooked & Road side
			PANJ-LF-22	Panijhora	3 m crooked
15	*Lagerstroemia parviflora*	5	DIANA/LP/1	C- Diana	All the trees were cut from the base.
			DIANA/LP/2	C- Diana	
			DIANA/LP/3	C- Diana	
			BARA/LP/8	Bara	Tree damaged
			BARA/LP/9	Bara	Tree damaged
16	*Michelia champaca*	1	SURS/MC/22	Sursuti/1,4	The trees was cut from the base.
19	*Swietenia mahogany*	2	SMOR/SM/2	SMG-7	Forking was observed at 8m height.
			SMOR/SM/1	SMG-7	Tree bole was not straight and remarkable bending was observed.
20	*Xylia dolabriformis*	3	SMOR/XD/5	SMG	CFC
			SMOR/XD/6	SMG	CFC
			SMOR/XD/7	SMG	CFC

Table A.1.D.1.2. Abstract of Candidate Plus Trees Rejected in Jalpaiguri Division

Sl. No.	Species Name	No. of Trees	Plus Tree Number	Location	Reason for rejecting/ Discarding

		Rejected			
1	*Michelia champaca*	1	CENT/MC/1	Central 3	Tree was found to be crooked at the middle of its height.
2	*Machilus villosa*	1	BARO/MV/3	Baradighi	Top Damaged
3	*Sapium baccatum*	1	CENT/SB/1	Central 3	Tree was crooked from a height of 3 meter.
4	*Terminalia arjuna*	1	LTG/TA/11	Lataguri	Tree was crooked and growing under isolation without any competition
5	*Terminalia chebula*	2	LT/TC/9	Lataguri	Tree was damaged (many branches were broken).
			LT/TC/10	Lataguri	Tree was crooked from a height of 3 meter from the base.

A.1.D.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate Plus Trees) and data was analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.D.2.1 *Acacia catechu*

In totality 1 trees of *Acacia catechu* were retained as plus tree in the division after rejection. The growth data of the same is as follow:

Table A.1.D.2.1.1 Growth Data of Plus trees of *Acacia catechu at* Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DIANA/AC/3	15	3	1.8	10	20	7	7	10

A.1.D.2.2 *Ailanthus grandis*

Out of 3 trees, 1 tree of *Ailanthus grandis*was retained as plus tree in the division after rejection on the basis of phenotypic appearance (Table A.1.D.2.2.1).

Table A.1.D.2.2.1 Growth Data of Plus tree of *Ailanthus grandis* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CMOR/AG/8	48	32	4.1	6.2	12	10	7	10

A.1.D.2.3 *Albizia procera*

In totality 3 trees of *Albizia procera* were retained for further analysis in the division. No rejection was there. The growth data of the same is as follow:

Table A.1.D.2.3.1 Growth Data of Plus Trees of *Albizia procera* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SURS/AP/4	27	14	3.1	18	11	7	7	10
CMOR/AP/2	26	15	1.85	14	11	7	7	10
CMOR/AP/3	23	14	1.82	11	4	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.46, I.47 & I.48) and finally the total weightage score was computed as below:

Table A.1.D.2.3.2 Total Weightage Score of Plus Trees of *Albizia procera* in Jalpaiguri Division

Tree No.	Total Weightage Score
SURS/AP/4	82.25
CMOR/AP/2	78.25
CMOR/AP/3	71.5

All the trees are lying within one hectare area (Fig. A.1.D.2.3.1), hence only one plus tree (SURS/AP/4) will be retained as plus tree and remaining two will as Candidate Plus Trees.

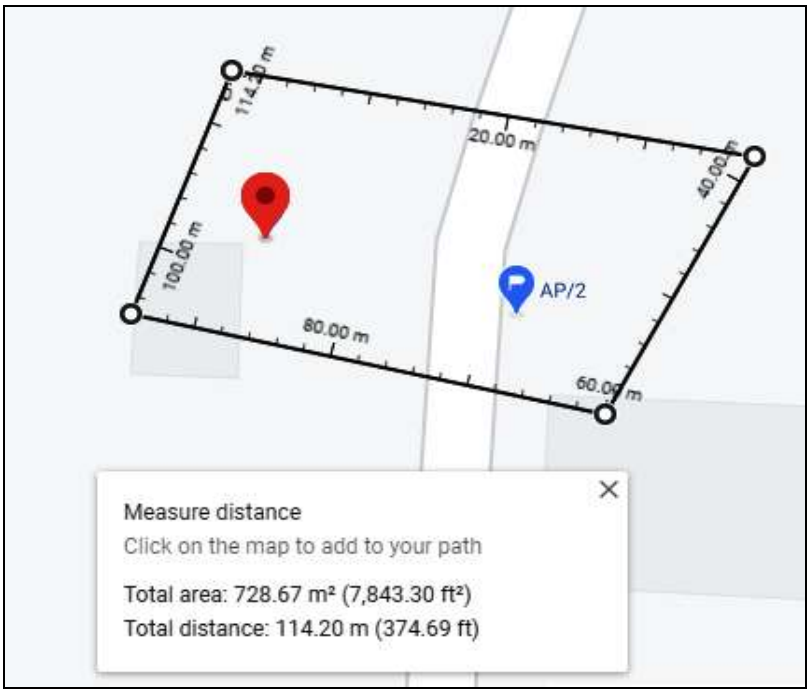


Fig. A.1.D.2.3.1 Area and Location of Different Trees of *Albizia procera* in Jalpaiguri Division

A.1.D.2.4 *Amoora wallichii*

5 trees out of 6 plus trees of *Amoora wallichii* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.D.2.4.1 Growth Data of Plus Trees of *Amoora wallichii* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/AW/5	32	12	2.88	20	19	10	10	10
CENT/AW/6	30	6.5	2.65	21	18	10	10	10
BICHA/AW/1	33	6.5	2.8	17	16	10	10	10
BICHA/AW/2	33	18	2.38	15	6	10	10	10
BICHA/AW/3	35	23	1.85	11	7	10	7	10

The total weightage score after scoring all the traits on same scale (Annexure-I, Table I.49, I.50& I.51) is presented in table A.1.D.2.4.2.

Table A.1.D.2.4.2 Total Weightage Score of Plus Trees of *Amoora wallichii* in Jalpaiguri Division

Tree No.	Total Weightage Score
CENT/AW/5	89.25
CENT/AW/6	84
BICHA/AW/1	88.25
BICHA/AW/2	89.5
BICHA/AW/3	84

Hence the trees are distributed in more than100 hectare area (Fig A.1.D.2.4.1), all the trees will be retained as plus trees.

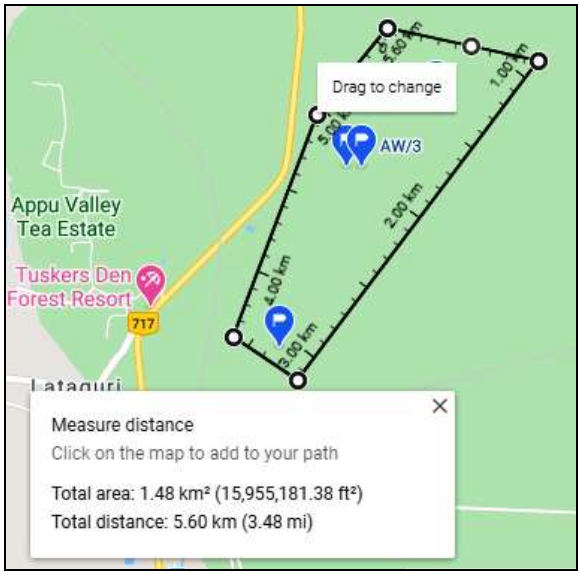


Fig. A.1.D.2.4.1 Area and Location of Different Trees of *Amoora wallichii* in Jalpaiguri Division

A.1.D.2.5 *Anthocephalus cadamba*

2 Candidate Plus Trees of *Anthocephalus cadamba*wer phenotypic appraisal of the growth traits (Table A.1.D.2.5.1). Further analysis has been carried out in new species.

Table A.1.D.2.5.1 Growth Data of Candidate Plus Trees of *Anthocephalus cadamba* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/AC/1	30	16	1.37	7	7	10	7	10
CENT/AC/2	27	12	1.4	7	8	10	7	10

A.1.D.2.6 *Bombax ceiba*

In totality 6 plus trees and 1 candidate plus tree of *Bombax ceiba* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.D.2.6.1 Growth Data of Plus Trees and Candidate Plus Trees of *Bombax ceiba*at Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RETI/ BC/3	30	17	5.6	16.5	15	10	10	10
RETI/ BC/4	31	21	3.9	15	10	7	7	10
RETI/ BC/5	29	19	3.9	18	15	10	10	10
PAN/BC/11	32	24	2.5	18	7	10	7	10
DIANA/BC/12	35	30	2.76	15	14	10	10	10
DIANA/BC/13	35	23	3.37	18	17	10	7	10
SURS/BC/1	24	16	2.01	7	4	10	10	10

**Bold texts are of plus trees*

After scoring all the traits in one scale and designating weightage (Annexure-I, Table I.52, I.53 & I.54), the total weightage score of individual tree is as below:

Table A.1.D.2.6.2 Total Weightage Score of Plus trees and Candidate Plus Trees of Bombax ceibaat Jalpaiguri Division

Tree No.	Total Weightage Score
RETI/ BC/3	88.5
RETI/ BC/4	77.25
RETI/ BC/5	86.75
PAN/BC/11	81.25
DIANA/BC/12	93.5
DIANA/BC/13	85.5
SURS/BC/1	76
Mean	**84.10**

**Bold texts are of plus trees*

In the division, trees are located in 4 locations. In Reti, all the three trees are located within 2 hectare area (Fig. A.1.D.2.6.1), hence RETI/BC/3& RETI/BC/5 will be retained as plus tree and remaining as Candidate Plus Trees. In Diana (Fig. A.1.D.2.6.2), DIANA/BC/12 will be retained as plus tree, as the area of distribution of trees within one hectare. Remaining will be retained as Candidate Plus Trees.

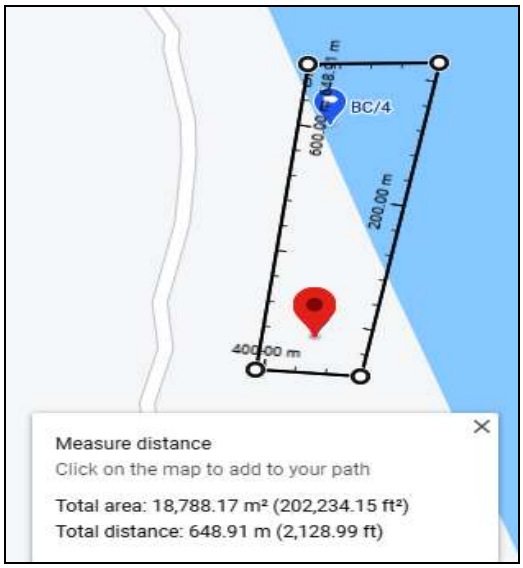


Fig. A.1.D.2.6.1 Area and Location of Different Trees of *Bombax ceiba* in Reti Location of Jalpaiguri Division

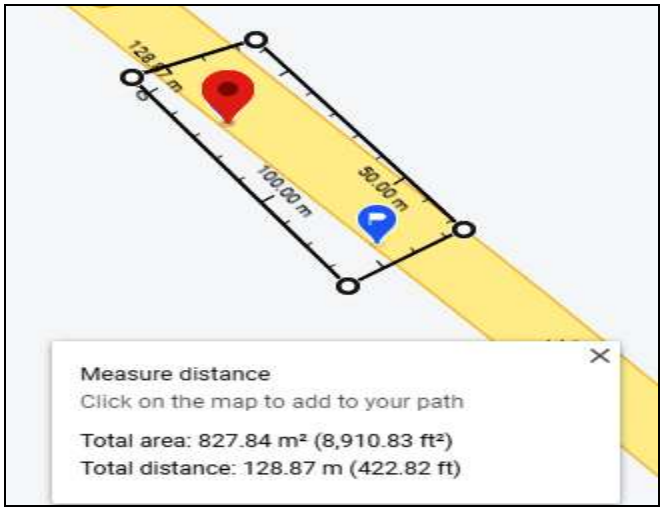


Fig. A.1.D.2.6.2 Area and Location of Different Trees of *Bombax ceiba* in Diana Location of Jalpaiguri Division

A.1.D.2.7 *Canarium sikkimensis*

1 plus trees of Canarium sikkimensis were found in the division. After phenotypic evaluation the tree will be retained as plus tree. The growth data of the same is as follow:

Table A.1.D.2.7.1 Growth Data of Plus Tree of *Canarium sikkimensis* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SMOR/CS/1	50	38	3.1	11.5	13	7	10	10

A.1.D.2.8 *Chukrasia tabularis*

13 plus tree were there in the division after phenotypic rejection in the field. The phenotypic traits are presented in Table A.1.D.2.8.1.

Table A.1.D.2.8.1 Growth Data of Plus Trees of *Chukrasia tabularis at* Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SURS/CT/18	32	22	2.18	7	15	10	10	10
SURS/CT/19	29	22	2.45	12	8	10	10	10
SURS/CT/20	25	20	1.8	14	6	10	10	10
SURS/CT/21	24	9	1.88	10	5	7	7	10
SURS/CT/22	26	10.5	1.85	12	6	10	7	10
SURS/CT/23	23	17	2.64	17	9	7	10	10
RETI/ CT/ 2	32	24	2.73	9.45	9	10	7	10
PANJ/CT/14	16	11	1.64	5	8	10	7	10
PANJ/CT/15	28	14	1.59	11	9	10	7	10
PANJ/CT/16	30	21	2.12	15	12	10	7	10
PANJ/CT/17	21	10	1.82	12	7	10	7	10
CMOR/CT/31	28	15	2	9	7	10	7	10
CMOR/CT/32	26	11	2.2	14	13	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial

use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.55, I.56 & I.57) and finally the total weightage score was computed as below:

Table A.1.D.2.8.2 Total Weightage Score Plus Trees of *Chukrasia tabularis in*Jalpaiguri Division

Tree No.	Total Weightage Score
SURS/CT/18	95
SURS/CT/19	96.75
SURS/CT/20	85.75
SURS/CT/21	72.5
SURS/CT/22	78.5
SURS/CT/23	88
RETI /CT/2	94.5
PANJ/CT/14	73.75
PANJ/CT/15	79
PANJ/CT/16	89.25
PANJ/CT/17	75.75
CMOR/CT/31	82.5
CMOR/CT/32	81.5

In Sursuti location (A.1.D.2.8.1), 6 trees are located in more than 7 hectare area, hence all the 6 trees will be retained as plus trees. In panijhora, 4 trees are distributed over an area of less than 1 hectare (A.1.D.2.8.2), hence 1 tree (PANJ/CT/17) will be retained as plus tree and remaining 3 as Candidate Plus Trees. In khuntimari (A.1.D.2.8.3), 1 tree (CMOR/CT/31) will be retained as plus tree as both the trees are very close. Tree in Reti location will be retained as plus tree.

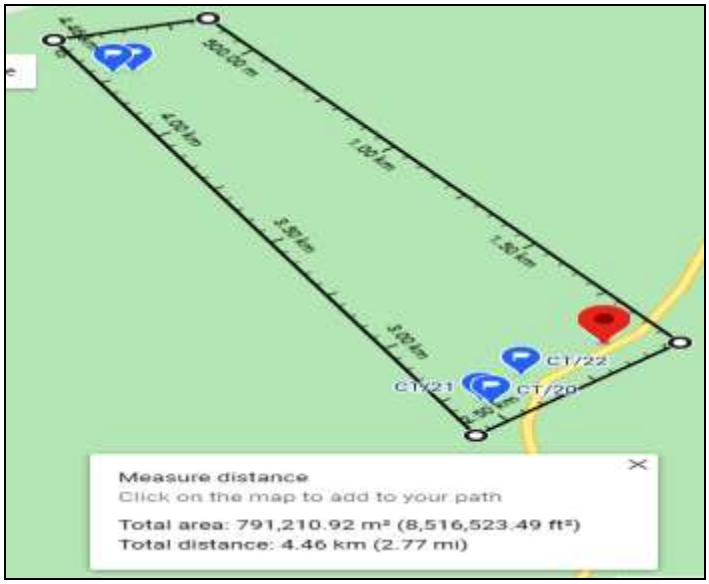


Fig. A.1.D.2.8.1 Area and Location of Different Trees of *Chukrasia tabularis in* Sursuti Location of Jalpaiguri Division

Fig. A.1.D.2.8.2 Area and Location of Different Trees of *Chukrasia tabularis in* Khuntimari Location of Jalpaiguri Division

Fig. A.1.D.2.8.3 Area and Location of Different Trees of *Chukrasia tabularis in* Panijhora Location of Jalpaiguri Division

A.1.D.2.9 *Cinnamomum cecidodaphne*

1 tree of *Cinnamomum cecidodaphne* were found in the division having good phenotypic appearance. The tree will be retained as plus tree. The growth data of the same is as follow:

Table A.1.D.2.9.1 Growth data of Plus Trees of *Cinnamomum cecidodaphne* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CMOR/CC/5	31	25	1.87	10	10	7	10	10

A.1.D.2.10 *Dalbergia sissoo*

Out of 8 plus trees, 5 trees have been rejected on the basis of phenotypic appearance. The growth data of 3 trees is as follow:

Table A.1.D.2.10.1 Growth Data of Plus Trees of *Dalbergia sissoo* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANJ/DS/9	24	6.5	1.66	9	13	7	7	10
DIANA/DS/18	18	6.5	1.73	12	13	10	10	10
DIANA/DS/22	20	13	1.46	9	9	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.58, I.59 & I.60) and finally the total weightage score was computed as below:

Table A.1.D.2.10.2 Total Weightage Score of Trees of *Dalbergia sissoo* in Jalpaiguri Division

Tree No.	Total Weightage Score
PANJ-DS-9	77.5
DIANA/DS/18	83.5
DIANA/DS/22	81

All the trees are located within 1 hectare area (Fig.A.1.D.2.10.1), hence 1 tree (DIANA/DS/18) will be retained as plus tree and remaining 2 as candidate plus Trees.

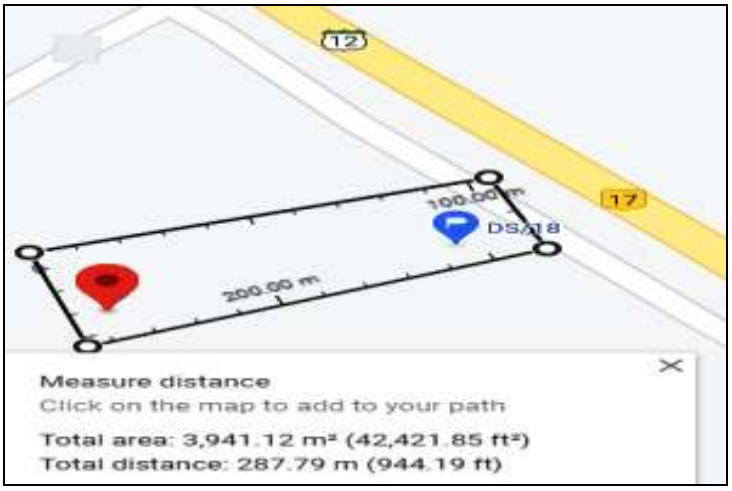


Fig. A.1.D.2.10.1 Area and Location of Different Trees of *Dalbergia sissoo* in Jalpaiguri Division

A.1.D.2.11 *Dipterocarpus macrocarpus*

1 candidate plus tree of *Dipterocarpus macrocarpus* was found in the division and found to be phenotypically superior. The tree will be retained as candidate plus tree. The growth data of the same is as follow:

Table A.1.D.2.11.1 Growth Data of Candidate Plus Tree of *Dipterocarpus macrocarpus*inJalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/DM/1	32	28	2.13	12	13	10	10	10

A.1.D.2.12 *Dipterocarpus marsupium*

In totality 3 plus trees of *Dipterocarpus marsupium* were there in the division after rejection. The growth data of the same is as follow:

Table A.1.D.2.12.1 Growth Data of Plus Trees of *Dipterocarpusmarsupium* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CMOR/DM/1	30	21	1.3	7	14	10	10	10
CMOR/DM/2	31	14	1.4	7	10	10	10	10
CMOR/DM/3	27	20	1.3	7	10	10	10	10

After scoring and giving weightage (Annexure-I, Table I.61, I.62 & I.63), the total weighted scores of the trees are as follow:

Table A.1.D.2.12.2 Total Weightage Score Plus Trees of *Dipterocarpus marsupium* in Jalpaiguri Division

Tree No.	Total Weightage Score
CMOR/DM/1	90
CMOR/DM/2	89
CMOR/DM/3	85

The trees are very close to each other (Fig.A.1.D.2.12.1), hence only one tree will be retained as plus tree (CMOR/DM/1) and remaining two as candidate plus tree.

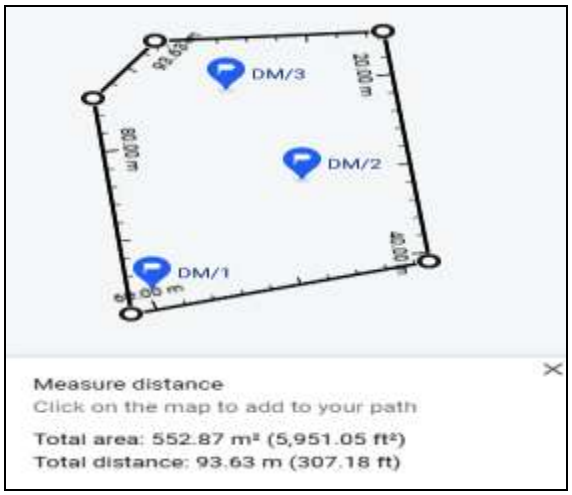


Fig. A.1.D.2.12.1 Area and Location of Different Trees of *Dipterocarpus marsupium* in Jalpaiguri Division

A.1.D.2.13 *Dipterocarpus turbinatus*

Out of 8 plus trees, 2 trees were discarded on the basis of phenotypic evaluation. The growth data of 6 trees is as follow:

Table A.1.D.2.13.1 Growth Data of Plus Trees *Dipterocarpus turbinatus* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LATA/DT/8	27	19	1.75	6	18	10	7	10
CMOR/DT/4	30	22	1.3	6	9	10	10	10
CMOR/DT/5	31	26	1.3	5	6	10	10	10
CMOR/DT/6	30	26	1.3	4	6	10	10	10
CMOR/DT/7	31	27	1.4	6	9	10	10	10
SMOR/DT/2	47	3	1.8	8	9	10	7	10

The total weightage score, after scaling and weightage (Annexure-I, Table I.64, I.65 & I.66) are as follow:

Table A.1.D.2.13.2 Total Weightage Score of Plus Trees of *Dipterocarpus turbinatus* in Jalpaiguri Division

Tree No.	Total Weightage Score
LATA/DT/8	85
CMOR/DT/4	82.75
CMOR/DT/5	85.75
CMOR/DT/6	84
CMOR/DT/7	86.25
SMOR/DT/2	86.75

Only one plus tree (SMOR/DT/2), will be retained as plus tree, depending upon the area of distribution of all the trees (Fig. A.1.D.2.13.1) and remaining will act as Candidate Plus Trees.

Fig. A.1.D.2.13.1 Area and Location of Different Trees of *Dipterocarpus turbinatus* in Jalpaiguri Division

A.1.D.2.14 *Gmelina arborea*

17 plus trees were observed in field. All the trees were good as per the phenotypical appearance. The growth data of the plus trees is presented as below:

Table A.1.D.2.14.1 Growth Data of Plus Trees of *Gmelina arborea* inJalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RETI/ GA / 26	28	10	2.2	12	8	10	7	10
RETI/ GA / 25	30	17	2	7.4	8	7	7	10
RETI/ GA / 24	28	24	1.6	7.5	4	10	7	10
CENT/GA/7	22	6.5	1.16	5	3	7	7	10
CENT/GA/8	23	15	0.98	4	4	7	7	10
CENT/GA/9	24	17	1.2	8	7	7	7	10
CENT/GA/10	22	13	0.91	8	5	7	7	10
CENT/GA/11	23	18	1.39	10	8	7	7	10
SURS/GA/12	21	7	1.07	4	3	7	10	10
SURS/GA/13	18	6	2.05	15	12	7	7	10
CENT/GA/6	22	6.5	1.16	5	3	7	7	10
BARA/GA/18	16	11	1.86	5	6	7	7	10
BARA/GA/19	12	8	1.4	4	2	7	7	10
BARA/GA/20	18	11	2.15	7	5	7	7	10
BARA/GA/21	20	12	1.75	6	7	7	7	10

BARA/GA/22	19	12	1.8	5	6	7	7	10
BARA/GA/23	18	12	1.8	5	7	7	7	10

After all the analysis (Annexure-I, Table I.67, I.68& I.69), the total weighted scores of the plus trees are as follow:

Table A.1.D.2.14.2 Total Weightage Score Plus Trees of *Gmelina arborea* inJalpaiguri Division

Tree No.	Total Weightage Score
RETI/ GA / 26	89
RETI/ GA / 25	88
RETI/ GA / 24	90.25
CENT/GA/7	72.25
CENT/GA/8	76
CENT/GA/9	80.5
CENT/GA/10	72.75
CENT/GA/11	80.75
SURS/GA/12	74.75
SURS/GA/13	78.5
CENT/GA/6	72.25
BARA/GA/18	77
BARA/GA/19	69.25
BARA/GA/20	79.25
BARA/GA/21	78.75
BARA/GA/22	77
BARA/GA/23	77.25

The trees are located within 1 hectare area in Reti location (Fig. A.1.D.2.14.1), hence 1 trees will be retained as plus trees (RETI/ GA/24) and remaining 2 as candidate plus tree. In Central location (Fig. A.1.D.2.14.2), all the trees are located within 2 hectare area; hence 2 trees will be retained as plus trees (CENT/GA/9 and CENT/GA/11) and remaining 4 as Candidate Plus Trees. In Sursuiti location(Fig. A.1.D.2.14.3), both the trees are far away with each other, hence will be retained as plus trees (SURS/GA/12 and SURS/GA/13). In baridighi location, all the trees are within 1 hectare area (Fig. A.1.D.2.14.4), hence BARA/GA/20 will be retained as plus tree and remaining will be marked as candidate plus trees.

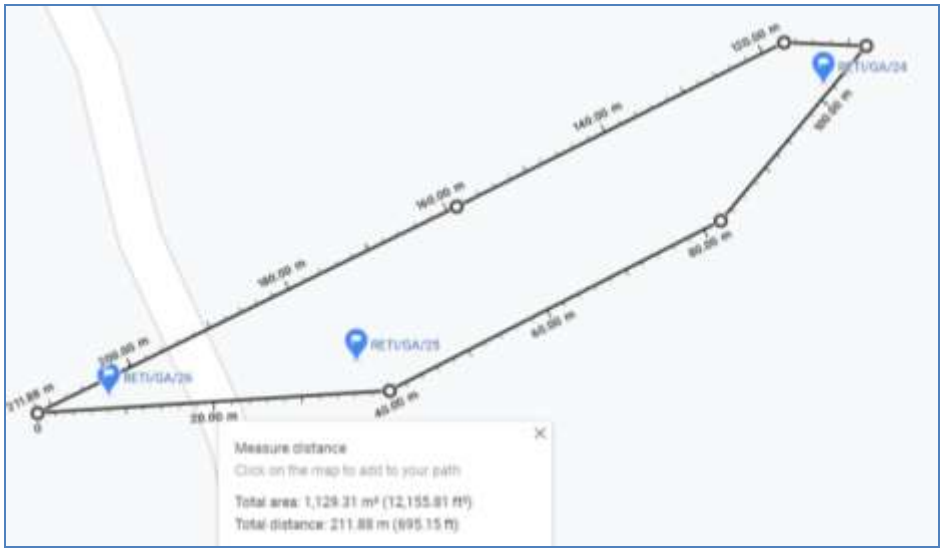


Fig. A.I.D.2.14.1 Area and Location of Different Trees of *Gmelina arborea* in Reti Location of Jalpaiguri Division

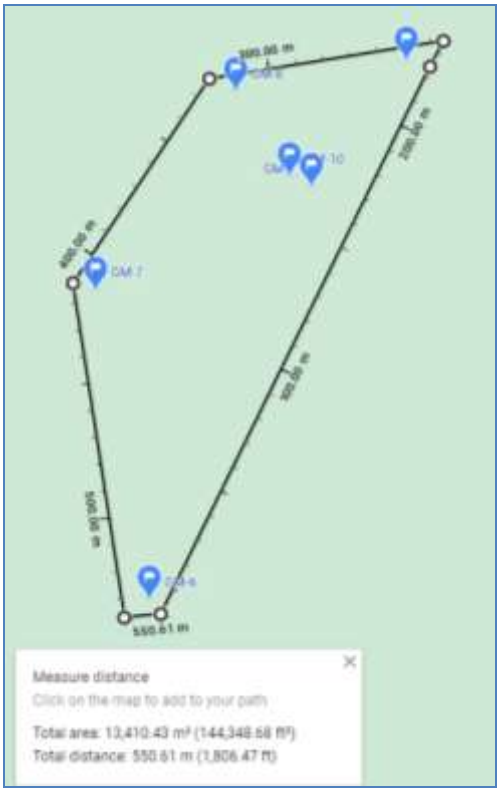


Fig. A.I.D.2.14.2 Area and Location of Different Trees of *Gmelina arborea* in CentralLocation of Jalpaiguri Division

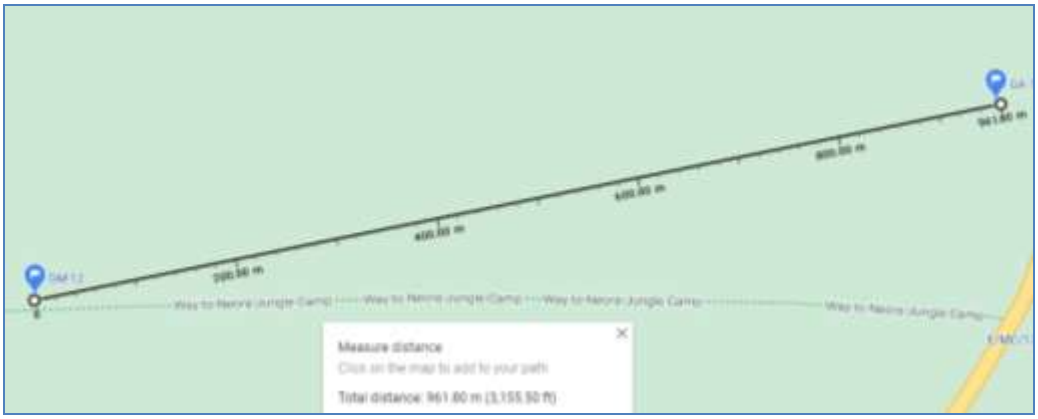


Fig. A.I.D.2.14.3 Area and Location of Different Trees of *Gmelina arborea* in Sursuiti Location of Jalpaiguri Division

Fig. A.I.D.2.14.4 Area and Location of Different Trees of *Gmelina arborea* in Barodighi Location of Jalpaiguri Division

A.1.D.2.15 *Lagerstroemia flosreginae*

2 trees were discarded on the basis of phenotypic evaluation and 13 plus trees were taken for further analysis. The growth data of same is as follow:

Table A.1.D.2.15.1 Growth Data of Plus Trees of *Lagerstroemia flos reginae* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANJ/LF/17	18	11	0.9	4.5	7	7	7	10
PANJ/LF/18	19	10	0.98	8	9	7	7	10
PANJ/LF/19	17	9	1.2	3.5	5	7	7	10
PANJ/LF/20	22	6	1	8	11	7	7	10
PANJ/LF/21	23	16	1.03	11	10	10	7	10
PANJ/LF/23	19	8	1.56	11	7	7	7	10
PANJ/LF/24	22	18	1.57	14	8	10	7	10
PANJ/LF/25	21	14	1.19	8	8	10	7	10
CENT/LF/11	22	10	1.25	11	10	10	10	10
CENT/LF/12	29	20	1.4	8	6	10	7	10
CENT/LF/13	30	18	1.26	6	5	10	7	10
CENT/LF/14	26	13	1.66	10	6	10	7	10
CENT/LF/15	23	10	1.43	14	13	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in paraB.1.A.1.3.

A.1.D.2.16 *Lagerstroemia parviflora*

4 trees out of 8 trees were cut down and 4 trees were good phenotypically (TableA.1.D.2.16.1).

Table A.1.D.2.16.1 Growth Data of Plus Trees of *Lagerstroemia parviflora* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BICHA/LP/6	32	15	2.08	15	20	10	7	10
DIANA/LP/4	32	10	3.44	20	14	10	10	10
DIANA/LP/5	31	10	3.19	12	17	10	7	10
BARA/LP/7	24	14	1.9	6	8	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.70, I.71 & I.72) and finally the total weightage score was computed as below:

Table A.1.D.2.16.2 Total Weightage Score ofPlus Trees of *Lagerstroemia parviflora* in Jalpaiguri Division

Tree No.	Total Weightage Score
BICHA/LP/6	87.25
DIANA/LP/4	91.5
DIANA/LP/5	86.75
BARA/LP/7	77.5

The trees are within 1 hectare area (A.1.D.2.16.1), hence only 1 plus tree will be retained (DIANA/LP/4) in the division and remaining as candidate plus tree.BARA/LP/7 is in the different location, hence will be retained as plus tree.

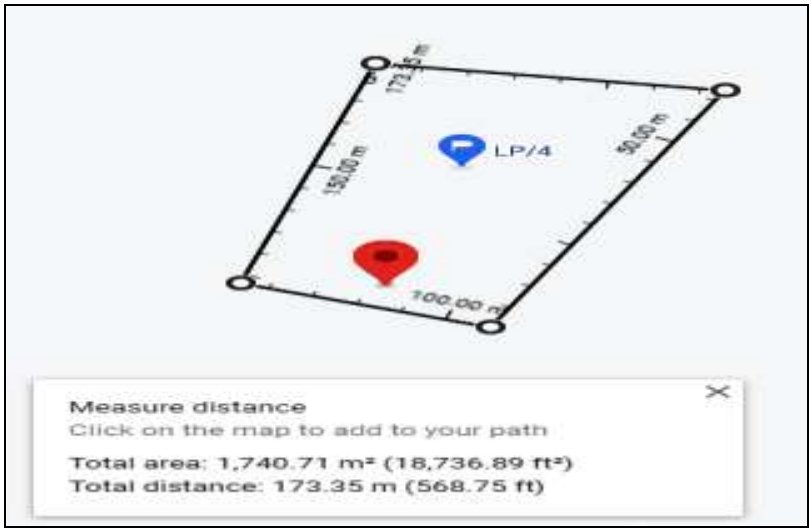


Fig. A.1.D.2.16.1 Area and Location of Different Trees of *Lagerstroemia parviflora* in Diana Location in Jalpaiguri Division

A.1.D.2.17 *Lophopetalum fimbriatum*

1 candidate plus tree was found in the division and will be retained as candidate plus tree.

Table A.1.D.2.17.1 Growth Data of Plus Trees of *Laphopetalum fimbriatum* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/LF/1	24	19	2.1	5	8	10	7	10

A.1.D.2.18 *Machilus villosa*

One candidate plus tree was found in the division which was phenotypically good after rejection and will be retained as candidate plus tree.

Table A.1.D.2.18.1 Growth Data of Candidate Plus Tree of *Machilus villosa* in Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BORO/MV/2	28	8	2.3	12	9	7	10	10

A.1.D.2.19 *Michelia champaca*

After rejection, 7 plus trees and 1 candidate plus tree of *Michelia champaca* were there in the division. Growth data of same is as follow:

Table A.1.D.2.19.1 Growth data of Plus Trees of *Michelia champaca* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/MC/17	33	22	1.92	13	6	10	7	10
CENT/MC/18	32	15	2.2	18	7	10	10	10
SURS/MC/21	29	17	1.19	12	7	10	7	10
CENT/MC/15	35	25	2.12	18	9	10	10	10
CENT/MC/16	32	21	1.98	11	8	10	7	10
SMOR/MC/19	33	27	2.4	7	11	10	7	10
SMOR/MC/20	28	6.5	2.54	12	12	10	7	10
CENT/MC/1	28	14	2	14	6	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.1.A.1.4.

A.1.D.2.20 *Schima wallichii*

10 good plus trees were observed in the division (Table A.1.D.2.19.1).

Table A.1.D.2.20.1 Growth data of Plus Trees of *Schima wallichii in* Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/SW/10	28	13	1.76	5	4	10	7	10
SURS/SW/7	32	20	1.3	13	7	10	7	10
SURS/SW/8	32	22	2.65	18	12	10	7	10
SURS/SW/9	29	20	2.55	14	11	10	10	10
SMOR/SW/1	34	26	2.6	3	10	7	7	10
SMOR/SW/6	33	17	2.12	7	9	10	7	10
BARA/SW/11	24	15	1.8	7	8	10	7	10
BARA/SW/12	23	12	2	10	7	10	7	10
CELKA/SW/13	21	10	2	10	8	10	10	10
CELKA/SW/14	31	19	2.23	13	8	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out inpara B.1.A.1.6

A.1.D.2.21 *Shorea robusta*

Only one tree was found in the division and was phenotypically superior (Table D.2.20.1). The same will be retained as plus tree.

Table A.1.D.2.21.1 Growth data of Plus Trees of *Shorea robusta* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SMOR/SR/35	34	24	2.5	12	10	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.1.A.1.5.

A.1.D.2.22 *Sterculia villosa*

4 plus trees were observed in the field and phenotypically all were good. The growth data of same is presented in table A.1.D.2.21.1.

Table A.1.D.2.22.1 Growth Data of Plus Trees of *Sterculia villosa* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DIANA/SV/1	30	15	2.98	9	10	10	7	10
DIANA/SV/2	30	14	3.52	13	14	10	10	10
DIANA/SV/3	31	13	3.2	18	20	10	10	10
DIANA/SV/4	30	14	3.1	10	9	10	7	10

The weighted scores after scoring on same scale and giving weightage to each traits (Annexure-I, Table I.73, I.74 & I.75) are as follow:

Table A.1.D.2.22.2 Total Weightage Score of Plus Trees of *Sterculia villosa* in Jalpaiguri Division after Rejection

Tree No.	Total Weightage Score
DIANA/SV/1	79.5
DIANA/SV/2	89
DIANA/SV/3	84
DIANA/SV/4	75.5

As trees are distributed over an area more than 1 hectare (Fig. D.2.22.1), 2 trees will be retained as plus trees (DIANA/SV/2 & DIANA/SV/3) and remaining 2 as Candidate Plus Trees.

Fig. A.1.D.2.22.1 Area and Location of Different Trees of *Sterculia villosa* in Jalpaiguri Division

A.1.D.2.23 *Swietenia mahogany*

Out of 4 plus trees, 2 trees were found to be good phenotypically. The growth data of same is as follow:

Table A.1.D.2.23.1 Growth data of Plus Trees of *Swietenia mahogany in* Jalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SMOR-SM-3	38	10	3	12	8	10	7	10
SMOR-SM-4	42	11	2.8	10	13	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.76, I.77 & I.78) and finally the total weightage score was computed as below:

Table A.1.D.2.23.2 Total Weightage Score of plus Trees of *Swietenia mahogany* inJalpaiguri Division

Tree No.	Total Weightage Score
SMOR-SM-3	108.5
SMOR-SM-4	118.5

Both the trees are far away from each other (A.1.D.2.22.1), hence will be retained as plus trees.

Fig. A.1.D.2.23.1 Area and Location of Different Trees of *Swietenia mahogany* in Jalpaiguri Division

A.1.D.2.24 *Tectona grandis*

30 plus trees of Tectona grandis were found in the division and all were phenotypical good trees (Table A.1.D.2.23.1).

Table A.1.D.2.24.1 Growth Data of Plus Trees of *Tectona grandis* inJalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RETI/ TG/54	32	21	2.58	7	8	10	7	10
RETI/ TG/55	35	25	2.75	12	10	10	7	10
RETI/ TG/56	26	14	2.35	6.5	8	10	7	10
CENT/TG/29	18	9	1.2	8	12	10	7	10
CENT/TG/30	23	17	1.13	8	12	10	7	10
CENT/TG/31	31	22	1.33	8	14	10	7	10
CENT/TG/32	28	18	1.14	9	11	10	7	10
CENT/TG/33	20	7	1.25	6	5	10	7	10
CENT/TG/34	22	18	1.55	6	7	10	7	10
CENT/TG/35	21	18	1.3	5.5	9	10	7	10
CENT/TG/36	22	11	1.1	6	15	7	7	10
CENT/TG/37	19	10	1.2	8	9	10	7	10
CENT/TG/38	20	16	1.2	4	12	10	7	10
GOSAI/TG/53	32	22	2.08	11	9	10	7	10
SMOR/TG/48	29	20	1.55	8.5	9	10	7	10
SMOR/TG/47	28	21	1.57	6	8	10	7	10
SMOR/TG/49	31	22	1.75	6	8	10	7	10
SMOR/TG/50	29	20	1.55	7	8	10	7	10
SMOR/TG/51	32	26	1.5	11	10	10	7	10
SMOR/TG/52	29	21	1.6	8	9	10	7	10
SURS/TG/33	**20**	**7**	**1.25**	**6**	**5**	10	7	10
SURS/TG/34	**22**	**18**	**1.55**	**6**	**7**	10	7	10
SURS/TG/35	**21**	**18**	**1.3**	**5.5**	**9**	10	7	10
SURS/TG/36	**22**	**11**	**1.1**	**6**	**15**	10	10	10
SURS/TG/37	**19**	**10**	**1.2**	**8**	**9**	10	7	10
SURS/TG/38	20	16	1.2	4	12	10	7	10
KHUN/TG/39	22	16	1.5	4	4	10	7	10
KHUN/TG/40	23	17	1.95	4	6	10	7	10
KHUN/TG/41	26	16	1.96	7	6	10	7	10
KHUN/TG/42	21	12	1.59	5	6	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.1.A.1.7.

A.1.D.2.25 *Terminalia bellirica*

4 plus trees and 1 candidate plus tree was found in the division. The data of remaining plus trees and candidate plus tree is as follow:

Table A.1.D.2.25.1 Growth Data of Plus Trees and Candidate Plus Tree of *Terminalia bellirica* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DIANA/TB/7	28	16	2.37	11	8	10	7	10
DIANA/TB/8	27	9	2.44	7	12	10	7	10
DIANA/TB/9	19	13	1.85	9	8	10	7	10
BARA/TB/11	27	19	2.23	7	18	10	10	10
BICHA/TB/3	20	11	2.26	7	11	10	10	10

**Bold texts are of plus trees*

The total weightage score after all the analysis (Annexure-I, Table I.79, I.80 & I.81) of individual tree is as follow:

Table A.1.D.2.25.2 Total Weightage Score of Plus Trees and Candidate Plus Tree of *Terminalia bellirica* inJalpaiguri Division

Tree No.	Total Weightage Score
DIANA/TB/7	91.75
DIANA/TB/8	88
DIANA/TB/9	75.75
BARA/TB/11	97
BICHA/TB/3	84.25

**Bold texts are of plus trees*

All the trees are distributed over an area less than 1 hectare (Fig. A.1.D.2.25.1), hence only one tree will be retained as plus tree (DIANA/TB-7) in the Diana location and BARA/TB/11 is at another location will be retained as Plus tree and remaining as Candidate Plus Trees.

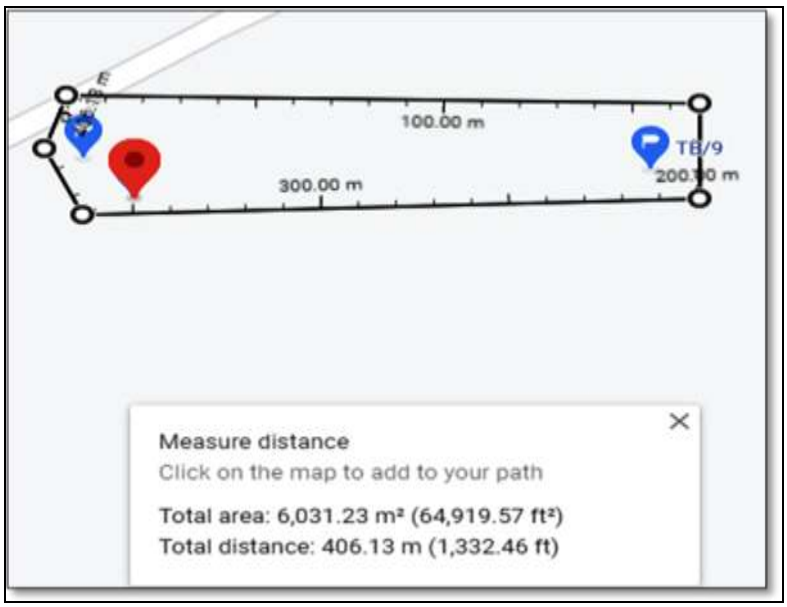


Fig. A.1.D.2.25.1 Area and Location of Different Trees of *Terminalia bellirica* in Jalpaiguri Division

A.1.D.2.26 *Terminalia tomentosa*

2 plus trees and 1 candidate plus tree was retained for further analysis after phenotypic appraisal. Growth data of same is presented as follow:

Table A.1.D.2.26.1 Growth data of Plus Trees and Candidate Plus Tree of *Terminalia tomentosa* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SURS/TT/22	31	20	1.46	7	6	10	7	10
SURS/TT/24	28	20	1.81	7	6	10	7	10
CENT/TT/10	32	16	1.88	18	5	10	7	10

**Bold texts are of plus trees*

After scoring on same scale and giving weightage (Annexure-I, Table I.82, I.83& I.84), the total weighted score is as follow:

Table A.1.D.2.26.2 Total Weightage Score of Plus Trees and Candidate Plus Tree of *Terminalia tomentosa* in *Jalpaiguri* Division

Tree No.	Total Weightage Score
SURS/TT/22	86.5
SURS/TT/24	86.5
CENT/TT/10	86.5
Mean	**86.5**

**Bold texts are of plus trees*

As the trees are distributed over an area more than 1 hectare (Fig A.1.D.2.26.1), 2 plus trees will be retained (SURS/TT/22 &SURS/TT/24) and remaining one as candidate plus tree.

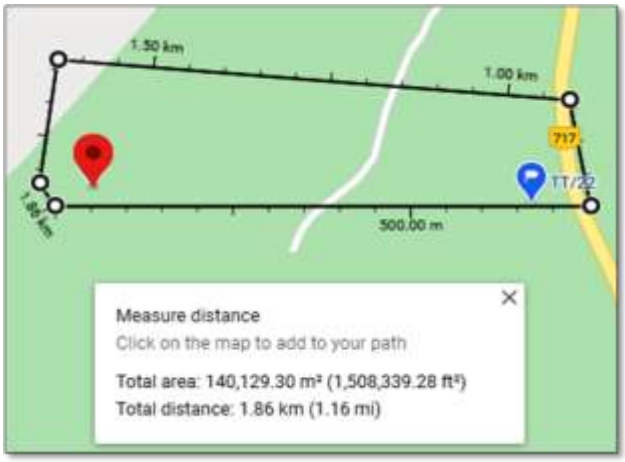


Fig. A.1.D.2.26.1 Area and Location of Different Trees of *Terminalia tomentosa* in Jalpaiguri Division

A.1.D.2.27 *Toona ciliata*

Out of 2 plus trees, 1 has been rejected on the basis of phenotypic appearance. The remaining tree will be retained as plus tree.

Table A.1.D.2.27.1 Growth data of Plus Trees of *Toona ciliata* inJalpaiguri Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SURS/TC/2	23	17	2.37	12	4	10	7	10

Fig. A.1.D.1 Glimpse of Existing Plus Trees in Jalpaiguri Division

Fig. A.1.D.2 Glimpse of Existing Candidate Plus Trees in Jalpaiguri Division

A.1.E Kurseong Division

71 plus trees of 8 species were found in Kurseong division out of 79 targeted trees (Table A.1.E.1). All the candidate plus tree (6 nos.) were found in the division (Table A.1.E.2).

Table A.1.E.1 Abstract of Plus Trees in Kurseong Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acrocarpus fraxinifolius*	8	0	8	0	8	0
2	*Adina cordifolia*	6	0	6	0	6	0
3	*Ailanthus grandis*	14	0	6	8	14	0
4	*Chukrasia tabularis*	13	0	13	0	13	0
5	*Dalbergia sissoo*	1	0	1	0	1	0
6	*Lagerstroemia hypoleuca*	10	0	10	0	10	0
7	*Terminalia bellirica*	6	0	6	0	6	0
8	*Terminalia tomentosa*	21	0	21	0	21	0
Total		**79**	**0**	**71**	**8**	**79**	**NIL**

Table A.1.E.2 Abstract of Candidate Plus Trees in Kurseong Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Dalbergia sissoo*	1	0	1	0	1	0
2	*Schima wallichii*	4	0	4	0	4	0
3	*Terminalia chebula*	1	0	1	0	1	0
Total		**6**	**0**	**6**	**0**	**6**	**NIL**

A.1.E.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

8 plus trees of 4 species (table A.1.E.1.1) and 1 Candidate Plus Trees of 1 species (Table A.1.E.1.2) were discarded from the list on the basis phenotypical characters observed in the field which is not a desirable character. In most of the cases, the undesirable character was tree being dead or stems crookedness after certain ground height.

Table A.1.E.1.1 Abstract of Plus Trees Rejected in Kurseong Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Ailanthus grandis*	01	KHAIR/AG/5	khairbani	The tree was half dead.
2.	*Terminalia bellirica*	02	PANI/TB/1	Barakothi	Plant at Roadside
			PANI/TB/2	Barakothi	Plant at Roadside
3.	*Lagerstroemia hypoleuca*	01	KHAIR/LH/3	khairbani	The tree was crooked after 3.5m from ground height.
4.	*Terminalia tomentosa*	04	TUKR/TT/3	Tukriajhar	The tree is Severely damaged
			TUKR/TT/4		The top of the tree is broken
			TUKR/TT/14		The tree was crooked after 2.5m from ground height.

			TUKR/TT/17		The tree top was damaged.

Table A.1.E.1.2 Abstract of Candidate Plus Trees and Candidate Plus Trees Rejected in Kurseong Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Dalbergia sissoo*	1	HUR/DS/1	Hurulia	The tree was found dead and dry at the top

A.1.E.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate Plus Trees) and data were analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.E.2.1 *Acrocarpus fraxinifolius*

8 plus trees of *Acrocarpus fraxinifolius* were found in the division and were phenotypically superior. The growth data of the same is as follows:

Table A.1.E.2.1.1 Growth Data of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHAIR/AF/2	25	18	2.5	17	14	7	7	10
KHAIR/AF/4	23	13	2.9	15	11	10	10	10
KHAIR/AF/1	18	10	2.9	10	16	7	7	10
KHAIR/AF/6	20	11	2.3	10	6	10	7	10
KHAIR/AF/7	21	16	3.1	8	14	7	7	10
KHAIR/AF/8	18	12	2.5	10	8	10	7	10
KHAIR/AF/9	19	14	2	7	8	10	7	10
KHAIR/AF/10	22	18	2.4	8	8	7	7	10

After scoring all the traits on one scale and giving weightage to each trait (Annexure-I, Table I.85, I.86 & I.87), the total weightage score of the trees are presented in Table A.1.E.2.1.2

Table A.1.E.2.1.2 Total Weightage Score of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No.	Total Weightage Score
KHAIR/AF/2	85
KHAIR/AF/4	90
KHAIR/AF/1	74.25
KHAIR/AF/6	75.5
KHAIR/AF/7	83
KHAIR/AF/8	76.25
KHAIR/AF/9	76
KHAIR/AF/10	80.5

All the trees are within 1 hectare area(Fig. A.1.E.2.1.1), hence KHAIR/AF/4 will be retained as plus tree and remaining will be marked as candidate plus trees except KHAIR/AF/1, which will be rejected from the list.

Fig. A.1.E.2.1.1 Area and Location of Different Trees of *Acrocarpus fraxinifolius* in Kurseong Division

A.1.E.2.2 *Adina cordifolia*

In totality 6 trees of *Adina cordifolia* were found in the division and all were phenotypically good. The growth data of the same is as follow:

Table A.1.E.2.2.1 Growth data of Plus Trees of *Adina cordifolia* in Kurseong

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TURK/ACO/2	21	10	2.05	7	11	10	10	10
TURK/ACO/3	22	15	1.75	9	11	10	7	10
TURK/ACO/5	23	15	1.2	4	7	10	10	10
TURK/ACO/6	20	12	1.85	4	13	7	7	10
TURK/ACO/1	21	15	1.8	8	10	10	10	10
TURK/ACO/4	19	15	1.85	9	12	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait, On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.88 I.89 & I.90) and finally the total weightage score was computed as below:

Table A.1.E.2.2.2 Total Weightage Score of Plus Trees of *Adina cordifolia* in Kurseong Division

Tree No.	Total Weightage Score
TURK/ACO/2	88.25
TURK/ACO/3	91.75
TURK/ACO/5	90
TURK/ACO/6	79.5
TURK/ACO/1	94.5
TURK/ACO/4	92

As the trees are distributed within 2 hectare area (Fig A.1.E.2.2.1), 2 trees (TURK/ACO/1and TURK/ACO/4) will be retained as plus trees and remaining one as candidate plus tree.

Fig. A.1.E.2.2.1 Area and Location of Different Trees of *Adina cordifolia* in Kurseong Division

A.1.E.2.3 *Ailanthus grandis*

5 trees of *Ailanthus grandis* were remained there in the division after rejection. The growth data of the same is as follows:

Table A.1.E.2.3.1 Growth Data of Plus Trees of *Ailanthus grandis* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHAIR/AG/1	55	21	1.6	6	7	7	7	10
KHAIR/AG/3	55	32	2.25	7	8	10	10	10
KHAIR/AG/4	55	35	2.15	5	6	7	7	10
KHAIR/AG/6	55	31	3.6	5	6	10	10	10
KHAIR/AG/8	55	21	2.1	5	8	10	10	10

For comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait, On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.91, I.92 & I.93) and finally the total weightage score was computed as below:

Table A.1.E.2.3.2 Total Weightage Score of Plus Trees of *Ailanthus grandis* in Kurseong Division

Tree No.	Total Weightage Score
KHAIR/AG/1	74.25
KHAIR/AG/3	89.75
KHAIR/AG/4	81.5
KHAIR/AG/6	94.5
KHAIR/AG/8	84.75

All the plus trees are distributed within 3 hectare area (Fig. A.1.E.2.3.1), hence three trees (KHAIR/AG/6, KHAIR/AG/3 and KHAIR/AG/8) will be designated as plus trees and remaining 2 as Candidate Plus Trees.

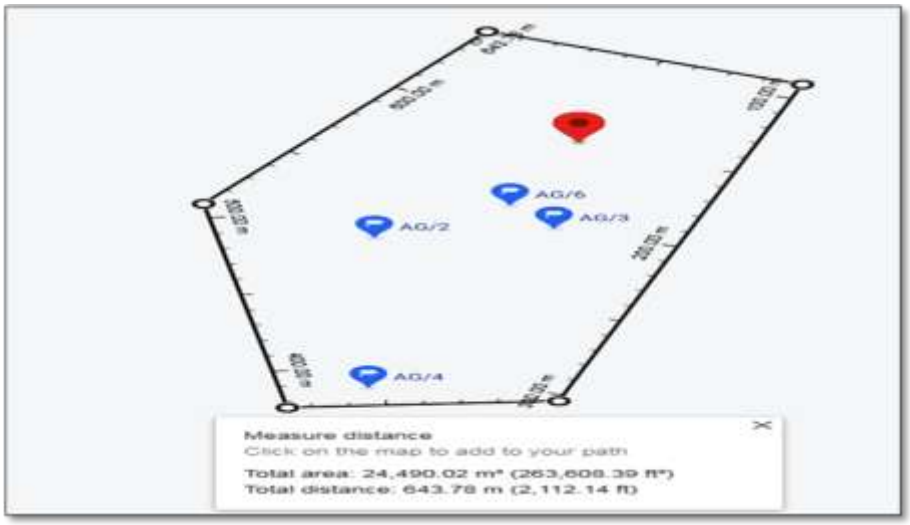


Fig. A.1.E.2.3.1 Area and Location of Different Trees of *Ailanthus grandis* in Kurseong Division

A.1.E.2.4 *Chukrasia tabularis*

In totality 13 trees of *Chukrasia tabularis* were found in the division. The growth data of the same is as follows:

Table A.1.E.2.4.1 Growth Data of Plus Trees of *Chukrasia tabularis* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHAIR/CT/9	30	20	2.1	9	12	7	10	10
KHAIR/CT/10	25	15	2.25	12	6	10	10	10
KHAIR/CT/11	27	20	2.4	6	4	10	10	10
KHAIR/CT/12	28	22	2.6	17	9	10	10	10
LOHA/CT/1	24	13	2.8	10	18	10	10	10
LOHA/CT/2	24	12	2.9	20	22	10	10	10
LOHA/CT/3	23	14	3	9	22	10	10	10
KHAIR/CT/4	22	11	1.8	14	10	10	7	10
KHAIR/CT/5	24	18	2.2	12	10	10	7	10
KHAIR/CT/6	30	21	3.2	20	6	10	7	10
KHAIR/CT/7	25	17	2.2	15	14	10	7	10
KHAIR/CT/8	25	18	2.7	16	15	10	10	10
KHAIR/CT/13	23	15	2.3	10	12	10	7	10

After all the analysis (Annexure-I, Table I.94, I.95 & I.96), the total weighted scores of individual trees are as follow:

Table A.1.E.2.4.2 Total Weightage Score of Plus Trees of *Chukrasia tabularis* in Kurseong Division:

Tree No.	Total Weightage Score
KHAIR/CT/9	86.25
KHAIR/CT/10	82
KHAIR/CT/11	90.5
KHAIR/CT/12	93.5
LOHA/CT/1	84.5
LOHA/CT/2	85.5
LOHA/CT/3	87.25
KHAIR/CT/4	72.25
KHAIR/CT/5	81.75
KHAIR/CT/6	94.5
KHAIR/CT/7	80.25
KHAIR/CT/8	90.75
KHAIR/CT/13	76.25

LOHA/CT/1 and LOHA/CT/2 are very close to each other (Fig.A.1.E.2.4.1), hence LOHA/CT/2 will be retained as plus tree and LOHA/CT/1 as candidate plus tree. LOHA/CT/3 is far away, so will be retained as plus tree. Remaining 11 trees are distributed over a large area more than 11 hectares (Fig.A.1.E.2.4.2), hence all trees will be retained as plus trees.

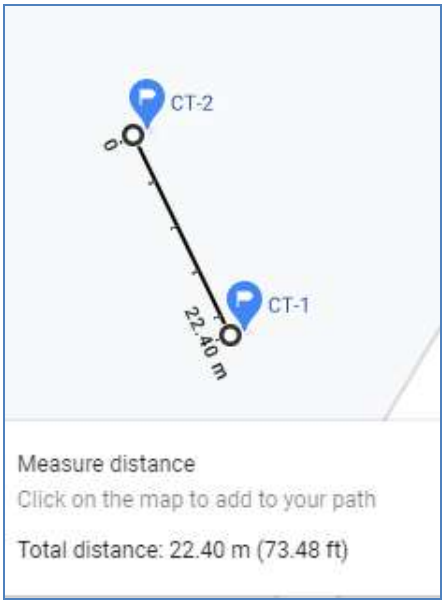


Fig. A.1.E.2.4.1 Area and Location of Different Trees of *Chukrasia tabularis* in Kurseong Division

Fig. A.1.E.2.4.2 Area and Location of Different Trees of *Chukrasia tabularis* in Kurseong Division

A.1.E.2.5 *Dalbergis sissoo*

In totality 1 phenotypically good plus tree of *Dalbergis sissoo* were found in the division and will be retained as plus tree. The growth data of the same is as follows:

Table A.1.E.2.5.1 Growth Data of Plus Trees of *Dalbergis sissoo* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LOHA/DS/1	21	9	1.9	16	6	7	10	10

A.1.E.2.6 *Lagerstroemia hypoleuca*

After rejection of 1 tree, 9 plus trees were observed in the division. The growth data of the same is as follows:

Table A.1.E.2.6.1 Growth Data of Plus Trees of *Lagerstroemia hypoleuca* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHAIR/LH/2	26	13	1.4	6	10	10	10	10
KHAIR/LH/4	20	13	1.95	13	5	10	10	10
KHAIR/LH/5	22	12	1.65	11	9	10	10	10
KHAIR/LH/6	22	8	1.7	9	13	10	7	10
KHAIR/LH/7	20	15	1.5	9	6	10	10	10
KHAIR/LH/1	20	4.5	2.1	7	11	10	10	10
KHAIR/LH/8	20	5.6	1.7	8	10	10	7	10
KHAIR/LH/9	21	7	1.6	10	8	7	7	10
KHAIR/LH/10	22	4.5	1.9	12	14	10	10	10

After scoring on same scale and giving weightage (Annexure-I, Table I.97, I.98 & I.99), the total weightage score was computed as below:

Table A.1.E.2.6.2 Total Weightage Score of Plus Trees of *Lagerstroemia hypoleuca* in Kurseong Division

Tree No.	Total Weightage Score
KHAIR/LH/2	88.5
KHAIR/LH/4	89
KHAIR/LH/5	86.75
KHAIR/LH/6	80.5
KHAIR/LH/7	84.5
KHAIR/LH/1	84.75
KHAIR/LH/8	76.25
KHAIR/LH/9	71.75
KHAIR/LH/10	85.5

All the trees are within 1 hectare area (Fig. A.1.E.2.6.1), hence only 1 plus trees (KHAIR/LH/4) will be retained in the division.KHAIR/LH/8 and KHAIR/LH/8 will be removed from the list and remaining will be marked as candidate plus trees.

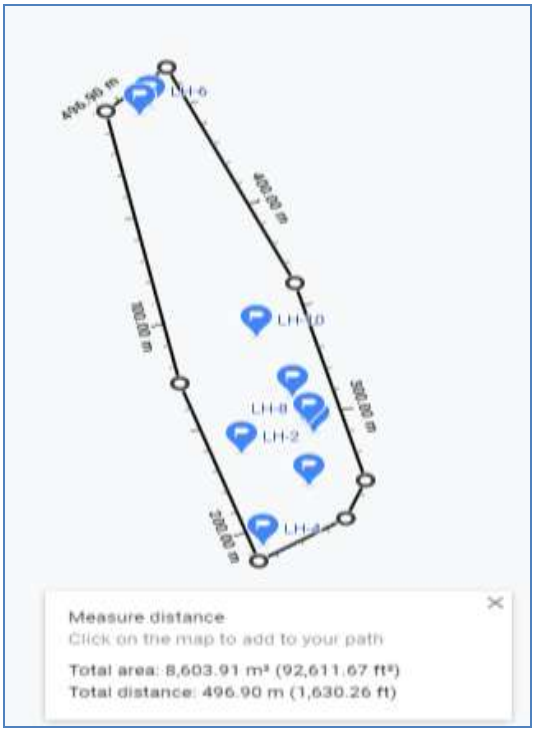


Fig. A.1.E.2.6.1 Area and Location of Different Trees of *Lagerstroemia hypoleuca* in Kurseong Division

A.1.E.2.7 *Schima wallichii*

4 trees of *Schima wallichii* were found in the division and all were phenotypically good. All the trees will be retained as Candidate Plus Trees. The growth data of the same is as follows:

Table A.1.E.2.7.1 Growth Data of Candidate Plus Trees of *Schima wallichii* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HUR/SW/1	20	15	1.15	7.3	7	10	10	10
HUR/SW/2	20	13.5	1.15	6	4	10	10	10
HUR/SW/3	22	16	1	5.7	4	10	10	10
HUR/SW/4	21	14	1.4	8	8	7	10	10

A.1.E.2.8 *Terminalia bellirica*

4 plus trees of *Terminalia bellirica* were there in the division after rejection of 2 trees. The growth data of the same is as follow:

Table A.1.E.2.8.1 Growth Data of Plus Trees of *Terminalia bellirica* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TURK/TB/3	20	10	1.65	5	13	10	10	10
TURK/TB/4	18	10	1.4	5	15	10	7	10
TURK/TB/5	16	12	1.6	6	8	7	7	10
TURK/TB/6	19	13	1.6	7	8	10	7	10

After carrying out all the analysis (Annexure-I, Table I.100, I.101& I.102), the total weightage score was computed as below:

Table A.1.E.2.8.2 Total Weightage Score of Plus Trees of *Terminalia bellirica* in Kurseong Division

Tree No.	Total Weightage Score
TURK/TB/03	90.75
TURK/TB/04	75.5
TURK/TB/5	79.75
TURK/TB/6	91.25

TURK/TB/03 , TURK/TB/05 and TURK/TB/06 are within 1 hectare area(Fig. A.1.E.2.8.1), hence TURK/TB/06 will be retained as plus tree and remaining 2 will be marked as candidate plus trees.TURK/TB/04 is far away from these trees and will be retained as plus trees.

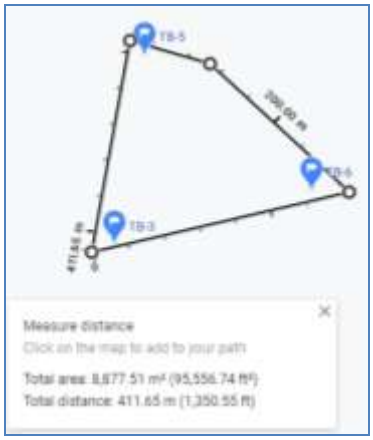


Fig. A.1.E.2.8.1 Area and Location of Different Trees of *Terminalia bellirica* in Kurseong Division

A.1.E.2.9 *Terminalia chebula*

In totality 1 trees of *Terminalia chebula* were found in the division and was phenotypically superior. The same will be retained as candidate plus tree. The growth data of the tree is as follows:

Table A.1.E.2.9.1 Growth Data of Candidate Plus Tree of*Terminalia chebula* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HUR/TC/8	23	3.5	1.79	18	13	7	10	10

A.I.E.2.10 *Terminalia tomentosa*

In totality 17 trees of *Terminalia tomentosa* were observed in the division after rejection. The growth data of the same is as follow:

Table A.1.E.2.10.1 Growth Data of Plus Trees of *Terminalia tomentosa* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TUKR/TT/5	25	10	1.95	3.5	5	10	7	10
TUKR/TT/6	23	15	2	5	8	10	10	10
TUKR/TT/7	23	14	1.9	9	15	10	10	10
TUKR/TT/8	20	10	2.5	8	22	10	10	10
TUKR/TT/9	23	12	1.75	5	17	10	10	10
TUKR/TT/10	20	11	1.65	5	13	7	10	10
TUKR/TT/11	20	11	1.65	5	12	7	10	10
TUKR/TT/12	20	10	1.8	3.5	11	7	10	10
TUKR/TT/13	21	10	2.05	5	22	10	10	10
TUKR/TT/15	22	10	2.2	9	21	10	7	10
TUKR/TT/16	17	7	1.9	3.5	14	10	10	10
TUKR/TT/18	25	13	2.1	8	17	10	10	10
TUKR/TT/19	22	11	1.9	6	9	10	10	10
TUKR/TT/20	23	14	2.2	7	6	10	10	10
TUKR/TT/21	22	12	2	8	9	10	7	10
PANI/TT/1	24	8	1.8	10	14	10	10	10
PANI/TT/2	27	16	2.13	15	16	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait, On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.103, I.104 & I.105) and finally the total weightage score was computed as below:

Table A.1.E.2.10.2 Total Weightage Score of Plus Trees of *Terminalia tomentosa* in Kurseong Division

Tree No.	Total Weightage Score
TUKR/TT/5	80
TUKR/TT/6	91
TUKR/TT/7	88
TUKR/TT/8	88.75
TUKR/TT/9	83.75
TUKR/TT/10	77.5

TUKR/TT/11	77.25
TUKR/TT/12	75.25
TUKR/TT/13	86
TUKR/TT/15	82
TUKR/TT/16	78.5
TUKR/TT/18	91.5
TUKR/TT/19	85.5
TUKR/TT/20	89.25
TUKR/TT/21	83
PANI/TT/1	81.5
PANI/TT/2	97.5

As the trees in tukrijhar are distributed over an area more than 18 hectares (Fig. A.1.E.2.10.1), hence all the trees will be retained as plus trees. In panighata both the trees are distributed over a distance more than 180 m, hence both will be retained as plus trees(Fig. A.1.E.2.10.2).

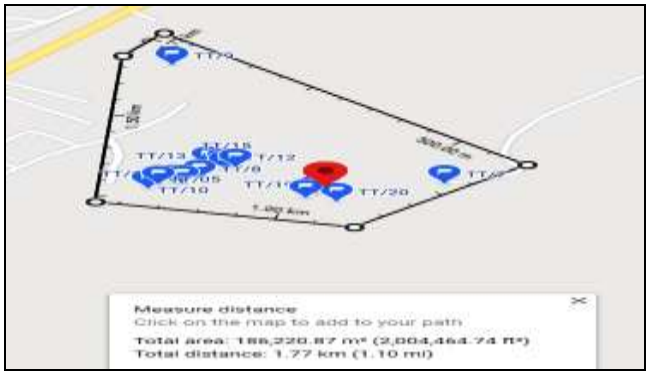


Fig. A.1.E.2.10.1 Area and Location of Different Trees of *Terminalia tomentosa* in Kurseong Division

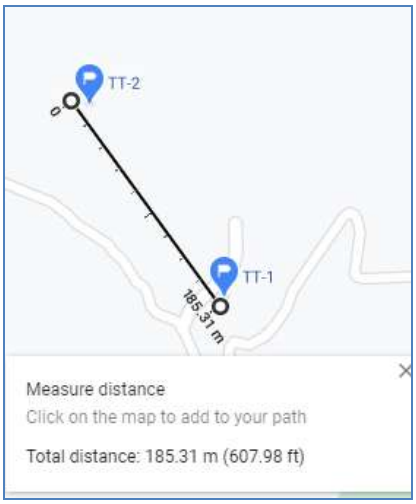


Fig. A.1.E.2.10.2 Area and Location of Different Trees of *Terminalia tomentosa* in Kurseong Division

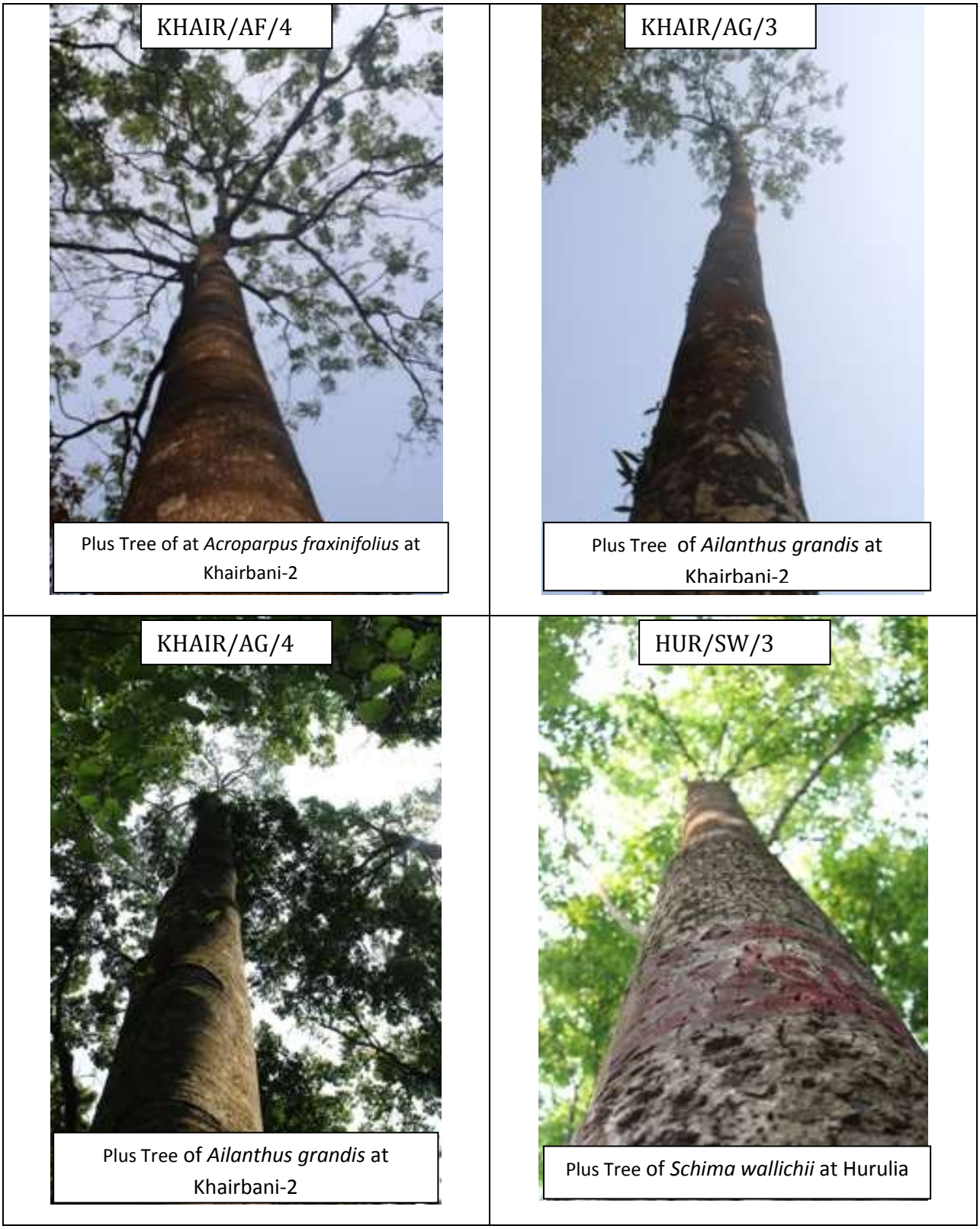


Fig. A.1.E.1 Glimpse of Existing Plus Trees in Kurseong Division

A.1.F Wildlife – II

In the division, 47 plus trees of 12 species were found in the field. 15 trees couldn't be traceable. No candidate tree was there in the division according to SFD records.

Table A.1.F.1 Abstract of Plus Trees in Wildlife - II Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Albizia procera*	1	0	1	0	1	0
2	*Amoora wallichii*	3	0	3	0	3	0
3	*Bombax ceiba*	2	0	2	0	2	0
4	*Chukrasia tabularis*	2	0	2	0	2	0
5	*Gmelina arborea*	6	0	6	0	6	0
6	*Lagerstroemia flos reginae*	3	0	3	0	3	0
7	*Lagerstroemia parviflora*	1	0	1	0	1	0
8	*Michelia champaca*	2	0	2	0	2	0
9	*Schema wallichii*	5	0	4	1	5	0
10	*Shorea robusta*	5	0	5	0	5	0
11	*Terminalia bellirica*	1	0	1	0	1	0
12	*Terminalia tomentosa*	30	0	17	13	30	0
13	*Toona ciliata*	1	0	1	0	1	0
Total		**62**	**0**	**47**	**15**	**62**	**NIL**

A.1.F.1 Direct Rejection of Trees in the Field on the Basis of Phenotypic Traits

Total 4 trees were discarded from the list on the basis phenotypical characters observed in the field which were not desirable characters (Table F.1.1).

Table A.1.F.1.1 Abstract of Plus Trees Rejected in WL-II Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Amoora wallichii*	1	BARA/AW/7	Barahati -3	The tree was very old.
2	*Shorea robusta*	3	BARA/SR/39	Bharahati/2,3	Tree top was damaged.
			BARA/SR/41	Bharahati/2,3	Tree was dead.
			BARA/SR/42	Bharahati/2,3	Tree was dead.

A.1.F.2 Analysis of Data

All the trees for a particular species were considered as candidate tree plus trees and data were analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.F.2.1 *Albizia procera*

In totality 1 plus tree of*Albizia procera*were found in the division and was phenotypically superior. The tree will be retained as plus tree. The growth data of the same is as follow:

Table A.1.F.2.1.1 Growth data of Plus Trees of *Albizia procera* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RARA/AP/1	30	13	1.83	8	5	10	10	10

A.1.F.2.2 *Amoora wallichii*

2 tree of *Amoora wallichii* were remained there in the division after rejection of 1 tree. The growth data of the same is as follow:

Table A.1.F.2.2.1 Growth Data of Plus Trees of *Amoora wallichii* in WL-II Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/AW/8	19	5	2.84	15	5	7	7	10
BARA/AW/9	32	22	1.64	10	6	10	10	10

After scoring all the traits into one scale and denoting weightage (Annexure-I, Table I.106, I.107 & I.108), finally the total weightage score was computed as below:

Table A.1.F.2.2.2 Total Weightage Score of Plus Trees *Amoora wallichii* in WL-II Division

Tree No.	Total Weightage Score
BARA/AW/8	75.75
BARA/AW/9	90.25

The distance between both the trees is approximately 5 kilometers (Fig. A.1.F.2.2.1), hence both will be retained as plus trees.

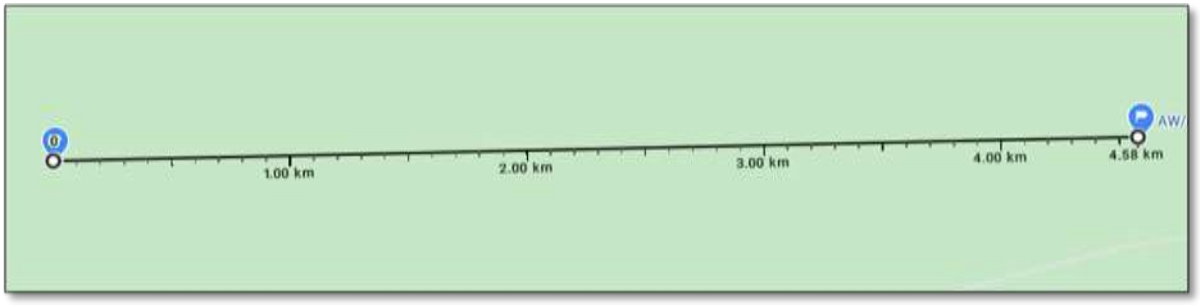


Fig. A.1.F.2.2.1 Area and Location of Different Trees of *Amoora wallichii* in WL-II Division

A.1.F.2.3 *Bombax ceiba*

In totality 2 Plus trees of ***Bombax ceiba*** were found in the division after rejection. The growth data of the same is as follow:

Table A.1.F.2.3.1 Growth data of Plus trees of *Bombax ceiba* in Wildlife - II Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA-BC-7	25	20	3.4	10	12	10	10	10
BARA-BC-8	20	14	2.5	7	6	10	7	10

After carrying out all the analysis (Annexure-I, Table I.109, I.110 & I.111), the final weighted scores of the trees are as follow:

Table A.1.F.2.3.2 Total Weightage Score of plus trees of *Bombax ceiba* in Wildlife - II Division Division after Rejection

Tree No.	Total Weightage Score
BARA-BC-7	100
BARA-BC-8	89.5

Both trees are very close to each other(Fig. A.1.F.2.3.1), hence BARA-BC-7 will be retained as plus tree and remaining will be marked as candidate plus tree.

Fig. A.1.F.2.3.1 Area and Location of Different Trees of *Amoora wallichii* in WL-II Division

A.1.F.2.4 *Chukrasia tabularis*

In totality 2 trees of *Chukrasia tabularis* were found in the division and both were phenotypically good. The growth data of the same is as follow:

Table A.1.F.2.4.1 Growth Data of Plus Trees of *Chukrasia tabularis* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CELKA/CT/34	31	23	1.65	8	7	10	10	10
CELKA/CT/35	30	21	2.24	11	7	10	7	10

After carrying out all the analysis (Annexure-I, Table I.112, I.113 & I.114), the final weighted scores of the trees are as follow:

Table A.1.F.2.4.2 Total Weightage Score of Plus Trees of *Chukrasia tabularis* in WL-II Division

Tree No.	Total Weightage Score
CELKA/CT/34	88.5
CELKA/CT/35	80.5

As the trees are very close to each other (Fig. A.1.F.2.3.1), only one tree will be retained as plus tree (CELKA/CT/34) and remaining one as candidate plus tree.

Fig. A.1.F.2.3.1 Area and Location of Different Trees of *Amoora wallichii* in WL-II Division

A.1.F.2.5 *Gmelina arborea*

6 phenotypically good plus trees of*Gmelina arborea*were found in the division. The growth data of the same is presented in table A.1.F.2.4.1:

Table A.1.F.2.5.1 Growth Data of Plus Trees of *Gmelina arborea* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/GA/18	32	28	1.84	5	7	10	10	10
BARA/GA/19	30	9	1.35	5	5	10	10	10
BARA/GA/20	33	27	2.12	8	5	10	7	10
BARA/GA/21	31	12	1.7	8	3	10	10	10
BARA/GA/22	30	12	1.77	6	4	10	10	10
BARA/GA/23	31	14	1.64	7	5	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.115, I.116 & I.117) and finally the total weightage score was computed as below:

Table A.1.F.2.5.2 Total Weightage Score of Plus Trees of *Gmelina arborea* in WL-II Division

Tree No.	Total Weightage Score
BARA/GA/18	91.5
BARA/GA/19	76.25
BARA/GA/20	91.25
BARA/GA/21	80.5
BARA/GA/22	80.5
BARA/GA/23	80

As all the trees are within 1 hectare area (Fig. A.1.F.2.5.1), only 1 plus tree (BARA/GA/18) will be retained as plus tree and remaining as Candidate Plus Trees.

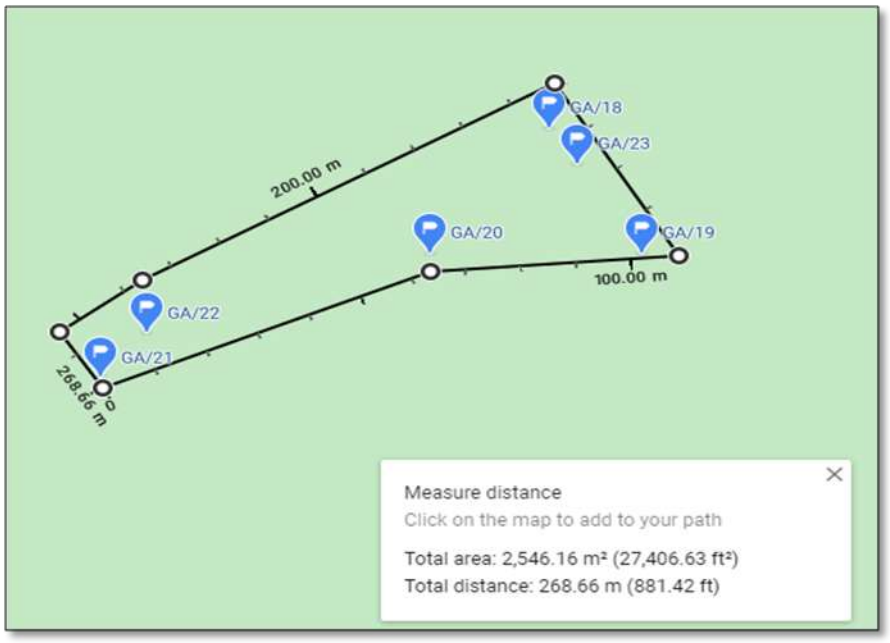


Fig. A.1.F.2.5.1 Area and Location of Different Trees of *Gmelina arborea* in WL-II Division

A.1.F.2.6 *Lagerstroemia flos reginae*

3 trees of *Lagerstroemia flos reginae* were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.1.F.2.6.1 Growth Data of Plus Trees of *Lagerstroemia flos reginae* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/LF/26	30	22	1.6	5	3	7	7	10
BARA/LF/27	28	10	1.74	10	7	10	10	10
BARA/LF/28	32	13	1.54	8	5	10	10	10

After scoring each trait and providing weightage (Annexure-I, Table I.118, I.119 & I.120), the total weightage score of plus trees are as follow:

Table A.1.F.2.6.2 Total Weightage Score of Plus Trees of *Lagerstroemia flos reginae* in WL-II Division

Tree No.	Total Weightage Score
BARA/LF/26	70
BARA/LF/27	85.25
BARA/LF/28	80.5

All the trees are within 1 hectare area (Fig. A.1.F.2.6.1) hence, 1 tree will be retained as plus tree (BARA/LF/27) and remaining 2 as Candidate Plus Trees.

Fig. A.1.F.2.6.1 Area and Location of Different Trees of *Lagerstroemia flos reginae* in WL-II Division

A.1.F.2.7 *Lagerstroemia parviflora*

Only 1 tree of *Lagerstroemia parviflora* was found in the division. the tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.1.F.2.7.1 Growth data of Plus Tree of *Lagerstroemia parviflora* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/LP/7	31	8	2	8	7	7	10	10

A.1.F.2.8 *Michelia champaca*

In totality 2 trees of *Michelia champaca* were found in the division without any rejection. The growth data of the same is as follow:

Table A.1.F.2.8.1 Growth Data of Plus Trees of *Michelia Champaca* WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HILLA/MC/24	25	20	1.95	7	7	10	10	10
BARA/MC/23	32	14	2.13	12	13	10	10	10

After scoring and weightage (Annexure-I, Table I.121, I.122 & I.123), the total score of the plus trees are as follow:

Table A.1.F.2.8.2 Total Weightage Score of Plus Trees of *Michelia Champaca* in WL-II Division

Tree No.	Total Weightage Score
HILLA/MC/24	82
BARA/MC/23	91.5

Both the trees are in different locations, hence both will be retained as plus trees.

A.1.F.2.9 *Schima wallichii*

In totality 4 trees of *Schima wallichii* were found in the division having good phenotypic appearance. The growth data of the same is as follow:

Table A.1.F.2.9.1 Growth Data of Plus Trees of *Schima wallichii* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/SW/11	25	13	1.7	8	8	7	10	10
BARA/SW/12	24	14	1.46	11	9	7	10	10
CELKA/SW/13	26	22	1.25	7	12	7	10	10
CELKA/SW/14	25	18	1.14	8	14	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.124, I.125 & I.126) and finally the total weightage score was computed as below:

Table A.1.F.2.9.2 Total Weightage Score of Plus Trees of *Schima wallichii* in WL-II Division

Tree No.	Total Weightage Score
BARA/SW/11	96
BARA/SW/12	83.25
CELKA/SW/13	80.5
CELKA/SW/14	97.5

The 2 trees in Barahati location are very near to each other (Fig. A.1.F.2.9.1), hence only 1 tree will be retained as plus tree (BARA/SW/11) and other as candidate plus tree. In case of second locality, Celka-2, the trees are far from each other (Fig. A.1.F.2.9.2), so both will be retained as plus trees.

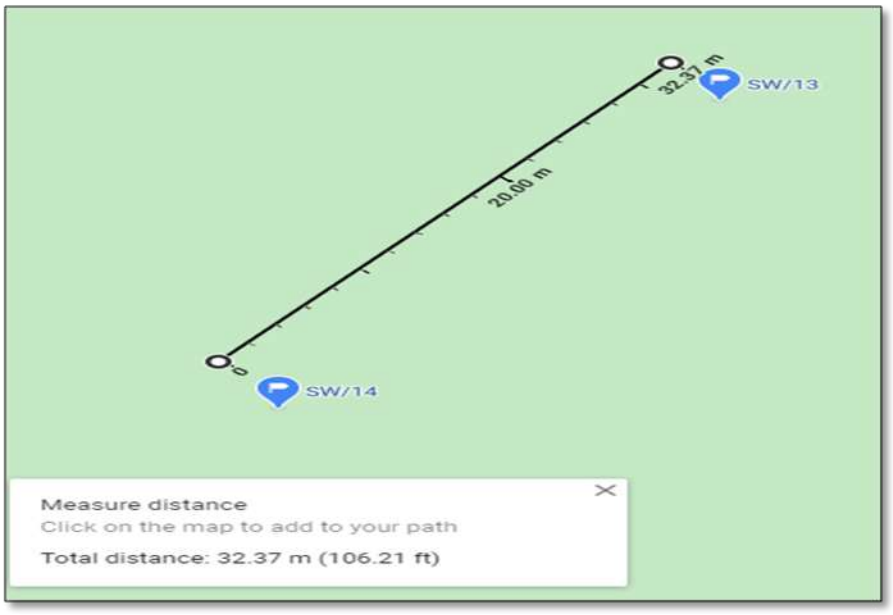


Fig. A.1.F.2.9.1 Area and Location of Different Trees of *Schima wallichii* in Barahati Location of WL-II Division

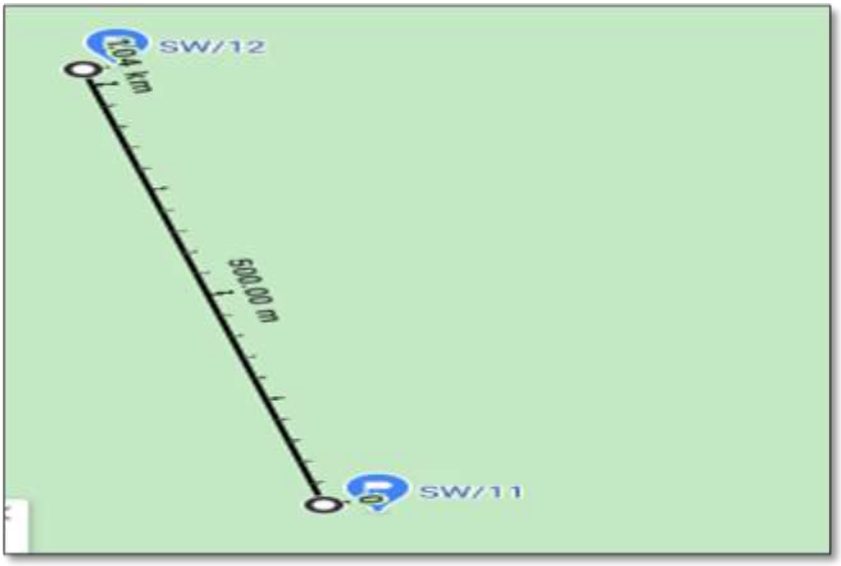


Fig. A.1.F.2.9.2 Area and Location of Different Trees of *Schima wallichii* in Shelka-2 Location of WL-II Division

A.1.F.2.10 *Shorea robusta*

2 plus trees of *Shorea robusta* were found in the division after rejection. The growth data of the same is as follow:

Table A.1.F.2.10.1 Growth data of Plus Trees of *Shorea robusta* in WL-II Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/SR/38	38	16	5.85	29	16	10	10	10
BARA/SR/44	33	21	3.04	17	15	10	10	10

After giving scores to quantitative traits as of qualitative traits and weightage the total weighted scores (Annexure-I, Table I.127, I.128 & I.129) of trees are a follow:

Table A.1.F.2.10.2 Total Weightage Score of Plus Trees of *Shorea robusta* in WL-II Division

Tree No.	Total Weightage Score
CELKA/SR/38	89.75
BARA/SR/44	82

As the both tree s are located in different localities, both will be retained as plus trees.

A.1.F.2.11 *Terminalia bellirica*

Only 1tree of *Terminalia bellirica* were found in the division and was phenotypically good. The tree will be retained as plus tree. The growth data of the same is as follow:

Table A.1.F.2.11.1 Growth data of Plus Trees of *Terminalia bellirica* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/TB/11	23	10	1.75	9	5	10	10	10

A.1.F.2.12 *Terminalia tomentosa*

In totality 17 trees of *Terminalia tomentosa* were found in the division out of 30. The growth data of the same is as follow:

Table A.1.F.2.12.1 Growth Data of Plus Trees of *Terminalia tomentosa* in WL-II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BHOGAL/TT/40	30	21	1.66	8	5	10	10	10
BHOGAL/TT/41	31	26	1.8	8	5	10	10	10
BHOGAL/TT/42	28	11	1.7	4	5	10	7	10
BHOGAL/TT/43	30	22	1.3	14	12	10	10	10
BARA/TT/27	29	13	1.57	14	8	10	10	10
BARA/TT/28	32	25	1.98	6	12	7	7	10
BARA/TT/29	30	14	2.15	8	5	10	10	10
BARA/TT/30	31	19	2	7	8	10	10	10
BARA/TT/31	32	12	1.19	11	12	10	7	10
BARA/TT/32	30	13	1.91	17	14	10	10	10
BARA/TT/33	30	10	1.32	12	8	10	10	10
BARA/TT/34	30	18	1.733	10	12	10	7	10
BARA/TT/35	31	19	2.12	11	9	10	10	10
BARA/TT/36	32	14	1.8	12	18	10	10	10
BARA/TT/37	31	20	2.15	9	13	10	7	10
BARA/TT/38	32	19	1.92	11	21	10	10	10
BARA/TT/39	32	19	2.06	13	10	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.130, I.131 & I.132) and finally the total weightage score was computed as below:

Table A.1.F.2.12.2 Total Weightage Score of PlusTrees of *Terminalia tomentosa* in WL-II Division

Tree No.	Total Weightage Score
BHOGAL/TT/40	87.25
BHOGAL/TT/41	94.75
BHOGAL/TT/42	75.5
BHOGAL/TT/43	86
BARA/TT/27	82.25
BARA/TT/28	85.25
BARA/TT/29	89.25
BARA/TT/30	92.75
BARA/TT/31	78.25
BARA/TT/32	86.5
BARA/TT/33	79.5
BARA/TT/34	83.25
BARA/TT/35	93.25
BARA/TT/36	91.25
BARA/TT/37	93.25
BARA/TT/38	93.5
BARA/TT/39	94.75

At Bhigalmardi location all the trees are within 1 hectare area (Fig. A.1.F.2.12.1), hence only 1 tree will be retained (BHOGAL/TT/41) as plus tree and rest 3 as Candidate Plus Trees. At Barahatitrees are in two clusters. In one cluster BARA/TT/27 and BARA/TT/28 (Fig. A.1.F.2.12.2) and in second cluster remaining 11 trees (Fig. A.1.F.2.12.3). BARA/TT/27 and BARA/TT/28 are very close to each other, hence 1 tree (BARA/TT/28) will be retained as plus tree and second one as candidate plus tree. In second cluster, all trees are within 1 hectare are, hence 1 tree may be retained as plus tree (BARA/TT/39) and 6 as Candidate Plus Trees (BARA/TT/38, BARA/TT/37, BARA/TT/35, BARA/TT/30. BARA/TT/36 and BARA/TT/29). Rest trees will be discarded.

Fig. A.1.F.2.12.1 Area and Location of Different Trees of *Terminalia tomentosa* in Bhigalmardi Location of WL-II Division

Fig. A.1.F.2.12.2 Area and Location of Different Trees of *Terminalia tomentosa* in Barahati Location of WL-II Division

Fig. A.1.F.2.12.3 Area and Location of Different Trees of *Terminalia tomentosa* in Barahati Location of WL-II Division

A.1.F.2.13 *Toona ciliata*

Only 1 tree of *Toona ciliata*was found in the division which was phenotypically good and will be retained as plus tree. The growth data of the same is as follow:

Table A.1.F.2.13.1 Growth Data of Plus Trees of *Toona ciliata* in WL-II

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BARA/TC/4	28	10	1.7	8	5	10	10	10

Plus Tree of *Terminalia tomantosa* at Bhogalmar

Plus Tree of *Chukrasia tabularis* at Celka-

Plus Tree of *Michelia champaca* at Hillajora

Plus Tree of *Schima wallichii* at Shelka-2

A.1.F.1 Glimpse of Existing Plus Trees of WL-II Division

BARA/GA/19

CPT of *Gmelina arborea* at Barahati-1,3

BARA/TT/30

CPT of *Terminalia tomentosa* at Barahati-1,3

BARA/LF/27

CPT of *Lagerstroemia flos reginae* at Barahati

BARA/TC/4

CPT of *Toona ciliata* at Barahati-1

A.1.F.1 Glimpse of Existing Plus Trees of WL-II Division

A.1.G WL-III Division

Only 4 trees of *Chukrasia tabularis* and 3 trees of *Swietenia mahagoni* were found in the division (Table A.1.G.1). No candidate plus tree was traceable in the division (Table A.1.G.2).

Table A.1.G.1 Abstract of Plus Trees in Wildlife - III Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Bombax ceiba*	2	0	0	2	2	0
2	*Chukrasia tabularis*	12	0	4	8	12	0
3	*Swietenia mahagoni*	3	0	3	0	3	0
Total		**17**	**0**	**7**	**10**	**17**	**Nil**

Table A.1.G.1 Abstract of Candidate Plus Trees in Wildlife - III Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Mesua ferrea*	5	0	5	0	5	0
2	*Swietenia mahagoni*	1	0	1	0	1	0
Total		**6**	**0**	**6**	**0**	**6**	**Nil**

A.1.G.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

Table A.1.G.1.1 Abstract of Plus Trees Rejected in WL - III Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Chukrasia tabularis*	2	NKHAIR/CT/44	N. Khairbari	Tree was discarded as was totally crooked.
			NKHAIR/CT/45	N. Khairbari	Tree was discarded as prominent branching were their at a height of 4.5 meter from the ground.

A.1.G.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate Plus Trees) and data was analyzed to get desired number of plus trees and Candidate Plus Trees (depending upon the area).

A.1.G.2.1 *Chukrasia tabularis*

In totality 2 trees of Chukrasia tabulariswere found in the division after rejection. The growth data of the same is as follow:

Table A.1.G.2.1.1 Growth data of Plus Trees of *Chukrasia tabularis*in WL - III Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NKHAIR/CT/46	22	9	2.3	12	15	10	7	10
NKHAIR/CT/47	18	4	2.3	9	21	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-I, Table I.133, I.134 & I.135) and finally the total weightage score was computed as below:

Table A.1.G.2.1.2 Total Weightage Score of Plus Trees of *Chukrasia tabularis* in WL - III Division

Tree No.	Total Weightage Score
NKHAIR/CT/46	82.5
NKHAIR/CT/47	76.75

Both trees are far from each other (Fig. A.1.G.2.1.1), hence, both will be retained as plus trees.

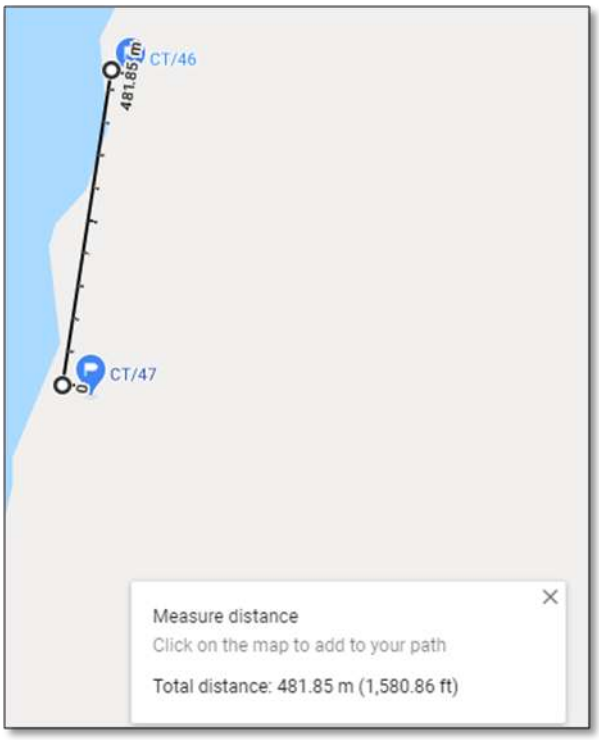


Fig. A.1.G.2.1.1 Area and Location of Different Trees of *Chukrasia tabularis* in WL-II Division

A.1.G.2.2 *Mesua ferrea*

In totality 5 Candidate Plus tree of *Mesua ferrea* found in the division and were phenotypically good. All will be retained as candidate plus trees. The growth data of the same is as follow:

Table A.1.G.2.2.1 Growth data of Candidate Plus Trees of *Mesua ferrea* in Wildlife III Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHILA/MF/1	21	8	1.53	7	14	10	10	10
CHILA/MF/2	22	10	1.5	4	10	10	7	10
CHILA/MF/3	18	10	1.25	6	12	10	10	10
CHILA/MF/4	21	10	1.62	5	9	10	7	10
CHILA/MF/5	22	10	1.48	4	12	10	10	10

A.1.G.2.3 *Swieetnia mahagoni*

In totality 4 trees (3 plus trees and 1 candidate plus tree) of *Swieetnia mahagoni* found in the divisio. The growth data of the same is as follow:

Table A.1.G.2.3.1 Growth data of Plus trees and Candidate Plus Tree of *Swieetnia mahagoni* in Wildlife III Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straighness	Stem Form	Infection
SM/9	18	10	1.81	4	12	10	10	10
SM/10	22	18	2.21	4	5	10	7	10
SM/11	16	4	2.1	5	8	10	10	10
BDABRI/SM/1	22	4	2.2	4	12	10	10	10

**Bold trees are Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each traittrait (Annexure-I, Table I.136, I.135 & I.137) and finally the total weightage score was computed as below:

Table A.1.G.2.3.2 Total Weightage Score of Plus trees and Candidate Plus Tree *Swieetnia mahagoni* in Wildlife-III Division

Tree No.	Total Weightage Score
SM/9	82.5
SM/10	93.75
SM/11	83.5
BDABRI/SM/1	91

All the 3 plus trees are distributed over 3 hectare area(Fig. A.1.G.2.3.1), hence will be retained as plus trees. As for comparison of candidate plus trees, we need 7 trees, hence SM-1 will be retained as candidate plus tree.

Fig. A.1.G.2.3.1 Area and Location of Different Trees of *Swieetnia mahagoni* in WL-II Division

A.2 EVALUATION OF EXISTING PLUS TREES, CANDIDATE PLUS TREES AND/OR CANDIDATE PLUS TREES IN SILVICULTURE SOUTH

The existing trees were there in twelve (12) division of the circle, named as follow**:**

A. Bankura (North)
B. Bankura (South)
C. Birbhum
D. Burdwan
E. Jhargram
F. Kangsawati (North)
G. Kangsawati(South)
H. Medinipur
I. New Murshidabad
J. Panchet
K. Purba Medinipur
L. Purulia

The details of selected trees along with its evaluation are discussed as follow:

A.2.A Bankura (North) Division

As per division's official record, 21 Plus trees of 3 species were there (table A.2.A.1), and collected the required data of the same. However 53 Candidate Plus Trees were evaluated in the division (Table A.2.A.2).

Table A.2.A.1 Abstract of Plus Trees in Bankura (North) Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Eucalyptus camaldulensis*	5	0	5	0	5	0
2.	*Eucalyptus citriodora*	15	0	15	0	15	0
3.	*Eucalyptus hybrid*	1	0	1	0	1	0
Total		**21**	**0**	**21**	**0**	**21**	**NIL**

Table A.2.A.2 Abstract of Candidate Plus Trees in Bankura(N) Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Adina cordifolia*	2	0	2	0	2	0
2.	*Alstonia scholaris*	2	0	2	0	2	0
3.	*Bombax ceiba*	16	0	16	0	16	0
4.	*Eucalyptus camaldulensis*	5	0	5	0	5	0
5.	*Eucalyptus citriodora*	25	0	25	0	25	0
6.	*Eucalyptus hybrid*	3	0	3	0	3	0
Total		**53**	**0**	**53**	**0**	**53**	**NIL**

A.2.A.1 Direct Rejection of Trees in the Field on the Basis of Phenotypic Traits

2 plus trees of *Eucalyptus citriodora* were fall down/cyclone damaged (Table A.2.A.1.1). Likewise, 2 Candidate Plus Trees of 2 species were rejected due to undesirable traits.

Table A.2.A.1.1 Abstract of Plus Trees Rejected in Bankura(N) Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Eucalyptus citriodora*	2	BAHR/EC/5/126	Baherakhoia	Fall down
			DHRM/EC/5/26	Baherakhoia	Cyclone damaged

Table A.2.A.1.2 Abstract of Candidate Plus Trees Rejected in Bankura(N) Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Alstonia scholaris*	1	MEJI/AS/2	Dangmejia	Crooked from 5 meter height.
2	*Bombax ceiba*	1	MEJI/BC/11	Dangmejia	Trunk not straight. Remarkable bend from 4 meter height 5mt.

A.2.A.2 Analysis of Data

All the trees for a particular species were considered as candidate plus trees (plus trees as well as Candidate Plus Trees) and data was analyzed to get desired number of trees (depending upon the area).

A.2.A.2.1 *Adina cordifolia*

In totality 02 candidate plus tree of *Adina cordifolia* and will be retained in the division after phonotypical appraisal (A.2.A.2.1.1).

Table A.2.A.2.1.1 Growth data of Candidate Plus Tree of *Adina cordifolia* in Bankura(N) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MEJI/AC/1	16	4	1.90	9	13	10	10	10
MEJI/AC/2	25	19	1.72	6	6	10	10	10

A.2.A.2.2 *Alstonia scholaris*

In totality out of 2 Candidate Plus Trees of *Adina cordifolia,* only 01will be retained in the division after phonotypical appraisal (Table A.2.A.2.2.1) and rejections.

Table A.2.A.2.2.1 Growth data of Candidate Plus Tree of *Alstonia scholaris* in Bankura(N) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MEJI/AS/1	19	6	2.05	7	12	7	10	10

A.2.A.2.3 *Bombax ceiba*

Out of 16 Candidate Plus Trees of *Bombax ceiba* only 15 will be retained in the division after phonotypical appraisal. The growth data of the trees is presented in Table A.2.A.2.3.1.

Table A.2.A.2.3.1 Growth data of Candidate Plus Trees of *Bombax ceiba* in Bankura(N) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MEJI/BC/1	19	11	1.65	10	16	10	7	10
MEJI/BC/2	19	6.5	1.92	12	11	10	7	10
MEJI/BC/3	20	13	1.85	15	13	10	10	10
MEJI/BC/4	21	18	1.84	11	7	7	10	10
MEJI/BC/5	22	17.5	2.80	9	10	10	7	10
MEJI/BC/6	22	11	2.48	16	12	10	7	10
MEJI/BC/7	17	5.5	2.45	7	5	10	10	10
MEJI/BC/8	21	10	2.40	12	13	10	10	10
MEJI/BC/9	22	10	2.65	27	18	10	10	10
MEJI/BC/10	18	13	2.60	12	14	10	7	10
MEJI/BC/12	20	14	2.45	11	6	10	7	10
MEJI/BC/13	19	14	2.75	10	7	10	10	10
MEJI/BC/14	32	20	2.73	8	6	10	10	10
MEJI/BC/15	30	7	2.05	15	15	10	10	10
MEJI/BC/16	28	12	3.04	30	8	10	10	10

After scoring and giving weightage to each trait of every tree (Annexure-II, Table II.1, II.2 & II.3), total weighted scores of individual tree is as follow:

Table A.2.A.2.3.2 Total Weightage Score of Candidate Plus Trees of *Bombax ceiba* in Bankura (N) Division

Tree No.	Total Weightage Score
MEJI/BC/1	75.75
MEJI/BC/2	73.75
MEJI/BC/3	82.25
MEJI/BC/4	81.25
MEJI/BC/5	90.75
MEJI/BC/6	83.5
MEJI/BC/7	80
MEJI/BC/8	84.25
MEJI/BC/9	89
MEJI/BC/10	84
MEJI/BC/12	81.25
MEJI/BC/13	89.5
MEJI/BC/14	96
MEJI/BC/15	85
MEJI/BC/16	93.75
Average	**84.67**

As trees are distributed over an area of 4 hectare (Fig. A.2.A.2.3.1), hence 5 trees will be marked as plus trees (MEJI/BC/14, MEJI/BC/16, MEJI/BC/5, MEJI/BC/13 and MEJI/BC/9) and remaining trees will be retained as candidate plus trees.

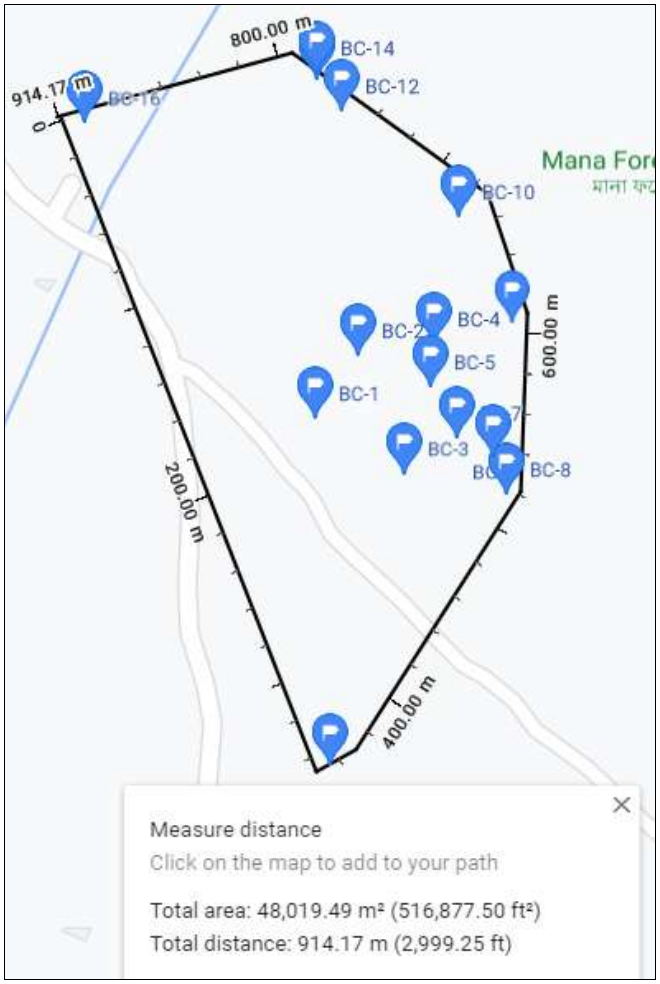


Fig. A.2.A.2.3.1 Area and Location of Different Trees of *Bombax ceiba in* Bankura (N) Division

A.2.A.2.4 *Eucalyptus camaldulensis*

5 plus trees and 5 candidate plus trees were observed in the division and all were phenotypically good (Table A.2.A.2.4.1).

Table A.2.A.2.4.1 Growth data of Plus Trees and Candidate Plus Tress of *Eucalyptus camaldulensis* in Bankura (N) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DHRM/EC/36	22	12	1.67	10	11	10	10	10
DHRM/EC/45	22	9	1.80	17	14	10	7	10
DHRM/EC/30	18	13	1.16	9	8	10	10	10
DHRM/EC/15	23	10	1.90	8	7	10	7	10
DHRM/EC/47	20	15	1.68	8	7	10	7	10
DHAR/EC/5	35	12	1.63	10	8	10	10	10
DHAR/EC/6	35	12	1.40	12	12	10	10	10
DHAR/EC/8	35	9	2.11	18	20	10	10	10
DHAR/EC/27	40	10	1.92	16	12	10	10	10
DHAR/EC/57	35	10	1.69	12	12	10	10	10

After scoring each trait on same scale and providing weightage (Annexure-II, Table II.4, II.5 & II.6), the final weighted scores of the trees are as follow:

Table A.2.A.2.4.2 Total Weightage Score of Plus Trees of *Eucalyptus camaldulensis* in Bankura (N) Division

Tree No.	Total Weightage Score
DHRM/EC/36	84.5
DHRM/EC/45	78.75
DHRM/EC/30	82.25
DHRM/EC/15	81
DHRM/EC/47	83.5
DHAR/EC/5	88.75
DHAR/EC/6	87.25
DHAR/EC/8	90.5
DHAR/EC/27	91
DHAR/EC/57	87.25
Average	**85.48**

All the trees are distrubuted within 1 hectare area (Fig. A.2.A.2.4.1), hence only 1 tree (DHAR/EC/27) will be marked as plus tree and rest will be marked as candidate plus

trees except **DHRM/EC/45, DHRM/EC/15** and **DHRM/EC/30** which will be rejected from the list.

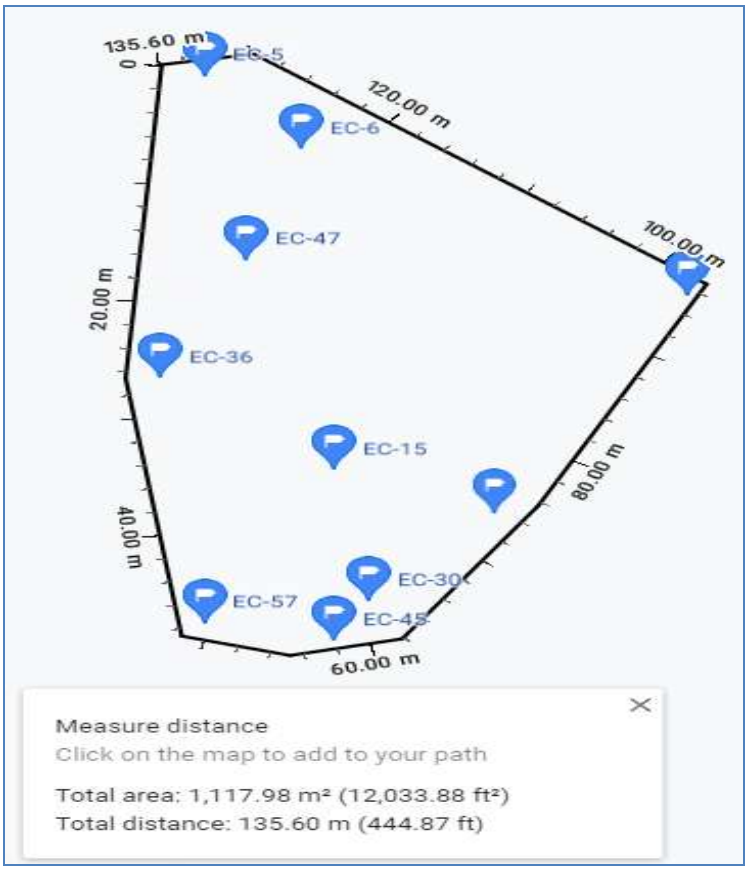


Fig. A.2.A.2.4.1 Area and Location of Different Trees of *Eucalyptus camaldulensis* in Bankura (N) Division

A.2.A.2.5 *Eucalyptus citriodora*

2 trees were rejected in the division and growth data of remaining 38 trees (13 plus trees and 25 candidate plus trees) is presented in table A.2.A.2.5.1.

Table A.2.A.2.5.1 Growth Data of Plus Trees of *Eucalyptus citriodora* in Bankura (N) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DHRM/EC/59	18	9	1.46	16	7	7	7	10
DHRM/EC/61	22	12	1.60	19	13	10	7	10
DHRM/EC/153	21	5	1.77	23	9	10	7	10
DHRM/EC/185	22	12	1.47	24	7	10	7	10
DHRM/EC/92	22	12	1.49	9	7	10	7	10
BAHR/EC/28	16	8	1.00	7	6	7	10	10
BAHR/EC/58	20	17	1.04	7	3	10	10	10
BAHR/EC/111	21	18	0.90	7	6	10	10	10
BAHR/EC/114	20	11	1.03	12	5	10	10	10
BAHR/EC/155	21	16	0.97	8	4	10	10	10
DHR/EC/153	27	10	1.78	10	6	10	10	10
DHR/EC/187	22	13	1.19	10	7	10	10	10
DHR/EC/199	22	12	1.33	10	5	10	10	10
DHAR/EC/9	27	10	1.34	8	12	10	10	10
DHAR/EC/10	30	12	1.26	6	9	10	10	10
DHAR/EC/25	29	12	1.37	8	8	10	10	10
DHAR/EC/35	28	12	1.52	14	16	10	10	10
DHAR/EC/69	29	10	1.47	5	8	10	10	10
DHAR/EC/70	25	12	1.50	10	6	10	10	10
DHAR/EC/81	27	12	1.38	10	5	10	10	10
DHAR/EC/98	25	15	1.35	8	6	10	10	10
DHAR/EC/113	28	13	1.34	10	8	10	10	10
DHAR/EC/148	25	10	1.58	10	7	10	10	10
DHAR/EC/159	22	10	1.60	10	8	10	10	10
DHAR/EC/194	25	10	1.42	12	6	10	10	10
DHAR/EC/209	23	14	1.47	10	10	10	10	10
DHAR/EC/211	20	12	1.53	14	6	10	10	10
DHAR/EC/226	22	12	1.38	14	10	10	10	10
DHAR/EC/17	27	20	1.16	12	8	10	10	10
DHAR/EC/25	24	12	1.02	8	8	10	10	10

DHAR/EC/45	25	16	1.11	6	5	10	10	10
DHAR/EC/50	27	21	1.06	6	5	10	10	10
DHAR/EC/57	25	15	1.08	6	6	10	10	10
DHAR/EC/84	24	15	1.01	6	5	10	10	10
DHAR/EC/98	24	16	0.95	6	6	10	10	10
DHAR/EC/104	25	14	0.98	8	6	10	10	10
DHAR/EC/126	24	14	0.94	8	6	10	10	10
DHAR/EC/132	25	18	1.06	8	6	10	10	10

After scoring each trait on same scale and providing weightage (Annexure-II, Table II.7, II.8 & II.9), the final weighted scores of the trees are as follow:

Table A.2.A.2.5.2 Total Weightage Score of Plus Trees of *Eucalyptus citriodora* in Bankura (N) Division

Tree No.	Total Weightage Score
DHRM/EC/59	75.75
DHRM/EC/61	86
DHRM/EC/153	82.5
DHRM/EC/185	85.75
DHRM/EC/92	85
BAHR/EC/28	71.75
BAHR/EC/58	83.5
BAHR/EC/111	85.75
BAHR/EC/114	79.75
BAHR/EC/155	83.5
DHR/EC/153	91
DHR/EC/187	85.5
DHR/EC/199	87.25
DHAR/EC/9	87.25
DHAR/EC/10	88.5
DHAR/EC/25	90.25
DHAR/EC/35	93.5
DHAR/EC/69	90.25
DHAR/EC/70	91
DHAR/EC/81	88.75
DHAR/EC/98	90.75
DHAR/EC/113	90.5
DHAR/EC/148	89
DHAR/EC/159	87.5
DHAR/EC/194	87

DHAR/EC/209	89.75
DHAR/EC/211	88.25
DHAR/EC/226	88
DHAR/EC/17	91
DHAR/EC/25	83.25
DHAR/EC/45	88.5
DHAR/EC/50	88.5
DHAR/EC/57	86.75
DHAR/EC/84	85
DHAR/EC/98	85.25
DHAR/EC/104	84.75
DHAR/EC/126	83.25
DHAR/EC/132	88.75
Average	**86.53**

At Dharampur, all the trees are within 1 hectare area (Fig. A.2.A.2.5.1). 1 tree will be marked as plus tree (DHAR/EC/35) and 6 trees as candidate plus trees (**DHRM/EC/153,** DHAR/EC/70, DHAR/EC/98, DHAR/EC/113, DHAR/EC/25 and DHAR/EC/69). At Baherakhoia, all tree as within 1 hectare area (Fig. A.2.A.2.5.2), hence 1 plus tree will be marked (DHAR/EC/17). 6 trees namely DHAR/EC/132, DHAR/EC/45, DHAR/EC/50, DHAR/EC/57, **BAHR/EC/111** and DHAR/EC/84 will be marked as candidate plus trees. Remaining trees will be deleted from the list.

Fig. A.2.A.2.5.1 Area and Location of Different Trees of *Eucalyptus citriodora* in Bankura (N) Division

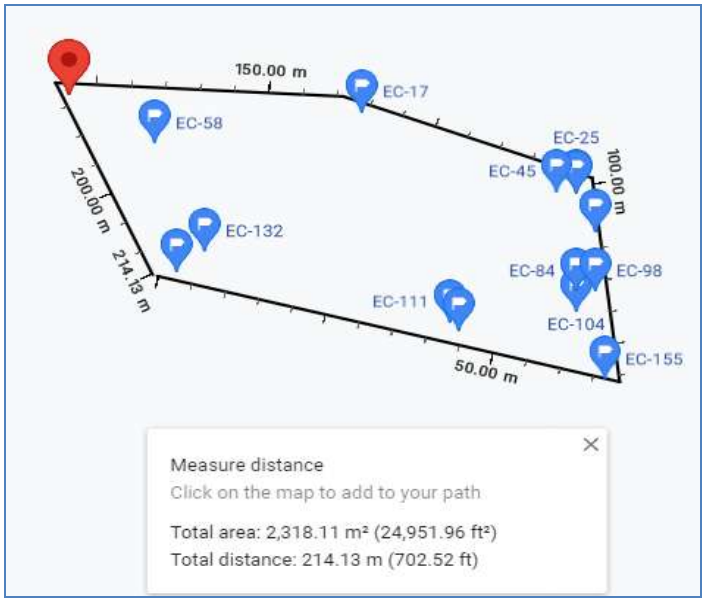


Fig. A.2.A.2.5.2 Area and Location of Different Trees of *Eucalyptus citriodora* in Bankura (N) Division

A.2.A.2.6 *Eucalyptus hybrid*

Only one Plus Tree and three Candidate Plus Trees were there in the division and found to be phenotypically superior (Table A.2.A.2.6.1).

Table A.2.A.2.6.1 Growth data of Plus Trees& Candidate Plus Trees of *Eucalyptus hybrid*in Bankura(N) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
EKR/EH/50	15	9	1.62	8	13	10	7	10
EKR/EH/45	25	15	1.44	12	6	10	10	10
EKR/EH/68	23	20	1.21	7	10	10	10	10
EKR/EH/90	35	20	1.26	8	12	10	10	10

After scoring each trait on same scale and providing weightage (Annexure-II, Table II.10, II.11 & II.12), the final weighted scores of the trees are as follow:

Table A.2.A.2.6.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Eucalyptus hybrid* in Bankura (N) Division

Tree No.	Total Weightage Score
EKR/EH/50	80.75
EKR/EH/45	88
EKR/EH/68	86
EKR/EH/90	91
Average	**86.44**

As for comparison minimum 7 trees are required, so candidate plus trees will be retained as candidate plus trees, however already selected plus tree has low score as compared to the candidate plus trees, hence it will also be marked as candidate plus tree.

CPTs of *Bombex ceiba* at Danimeiia

CPTs of *Alstinia scholoris* at Dangmeiia

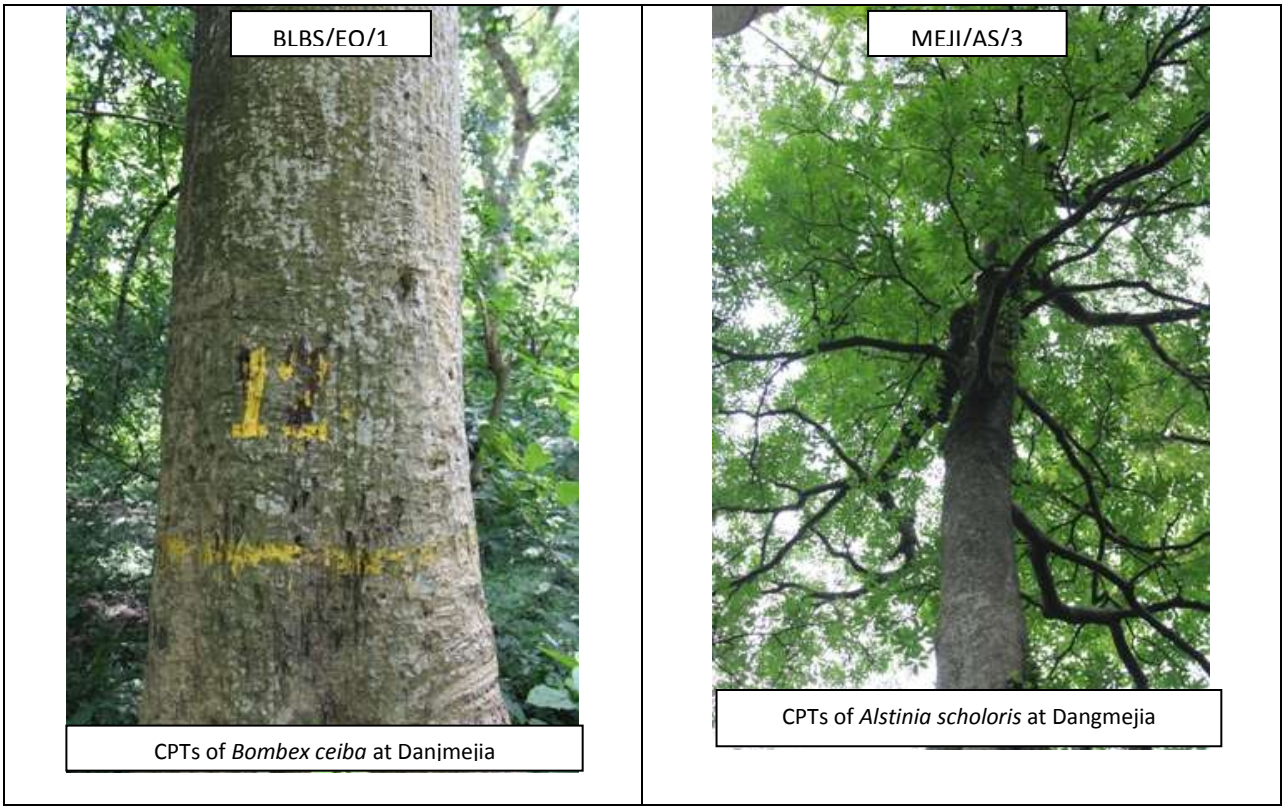


Fig. A.2.A.1 Glimpse of Existing CPTs in Bankura (North) Division

A.2.B Bankura (South) Division

85 candidate plus trees as per records provided, were found in the field (Table A.2.B.1).

Table A.2.B.1. Abstract of Candidate Plus Trees in Bankura(S) Division

SL no.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Adina cordifolia*	1	0	1	0	1	0
2.	*Anogeissus latifolia*	3	0	3	0	3	0
3.	*Anthocephalus cadamba*	1	0	1	0	1	0
4.	*Azadirachta indica*	1	0	1	0	1	0
5.	*B. cochinchinensis*	7	0	7	0	7	0
6.	*Bombax ceiba*	6	0	6	0	6	0
7.	*Cassia siamea*	5	0	5	0	5	0
8.	*Cleistanthus collinus*	3	0	3	0	3	0
9.	*Dalbergia sissoo*	1	0	1	0	1	0

10.	*Diospyros melanoxylon*	3	0	3	0	3	0
11.	*Eucalyptus citriodora*	5	0	5	0	5	0
12.	*Lagerstroemia parviflora*	2	0	2	0	2	0
13.	*Pterocarpus marsupium*	9	0	9	0	9	0
14.	*Schleichera trijuga*	1	0	1	0	1	0
15.	*Shorea robusta*	7	0	7	0	7	0
16.	*Soymida febrifuga*	4	0	4	0	4	0
17.	*Tectona grandis*	4	0	4	0	4	0
18.	*Terminalia alata*	9	0	9	0	9	0
19.	*Terminalia bellirica*	10	0	10	0	10	0
20.	*Terminalia chebula*	3	0	3	0	3	0
Total		**85**	**0**	**85**	**0**	**85**	**0**

A.2.B.1 Direct Rejection of Candidate Plus Trees in the Field on the basis of phenotypic traits

26 trees of 12 species were discarded from the list on the basis of their phenotypical appraisal (Table A.2.B.1.1).

Table A.2.B.1.1 Abstract of Candidate Plus Trees Rejected in Bankura (s) Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Anogeissus latifolia*	2	RANI/AL/1	Ranibandh	Twisted bole was observed.
			RANI/AL/2/8	Ranibandh	Bole was not straight. Many bends in the bolewas observed.
2.	*Anthocephalus cadamba*	1	SUTA/AC/1	Sutan	Prominent buttress at ground level was seen.
3.	*Bombax ceiba*	2	BATH/BC/3	Bethala	Crooked form was there for both the trees.
			BATH/BC/4	Bethala	
4.	*Buchanania cochinchinensis*	2	JHIL/BL/3	Jhilimili	Bend from 2mt.
			JHIL/BL/4	Jhilimili	Road side 2mt.
5.	*Cassia siamea*	4	RANI/CS/1	Ranibandh	Prominent bend from4 meter height.
			RANI/CS/2	Ranibandh	Tree was not straight and bend was observed at a height of 5 meter.
			RANI/CS/3	Ranibandh	Clear bole was very short. Branches are there at a height of 3.5 meter.
			RANI/CS/4	Ranibandh	Upper portion of the tree bend.
6.	*Cleistanthus collinus*	2	SUTA/CC/2	Sutan	3 trees were there within one meter periphery.
			SUTA/CC/3	Sutan	Tree was at road side.
7.	*Dalbergia sissoo*	1	SUTA/DS/1	Sutan	No clear bole was there.
8.	*Diospyros melanoxylon*	2	SUTA/DM/1	Sutan	Prominent buttress was observed.
			SUTA/DM/2	Sutan	
9.	*Eucalyptus citriodora*	3	HATI/EC/3	Hatirampur	Bending was observed just at a height of 1 meter in both the trees.
			HATI/EC/4	Hatirampur	
			HATI/EC/5	Hatirampur	Forking was observed at a height of 2.5 meter.
10.	*Shorea robusta*	1	SUTA/SR/1	Sutan	Formation of two trees from the same point.
11.	*Terminalia*	3	SUTA/TB/3	Sutan	Forking below breast height

	bellirica		SUTA/TB/4	Sutan	was observed.
			SUTA/TB/5	Sutan	
12.	*Tectona grandis*	3	HIRB/TG/1	Hirbandh	Clear bole was not there and also forking was observed at a height of 4 meter.
			RANI/TG/1	Ranibandh	Trunk was not straight. Prominent bending was observed.
			RANI/TG/3	Ranibandh	Clear bole was not there and also forking was observed at a height of 3 meter.

A.2.B.2 Analysis of Data

Data on phenotypic traits was analyzed to get desired number of candidate plus trees (depending upon the area).

A.2.B.2.1 *Adina cordifolia*

Only 1 tree of *the species* was found in the division. The tree was phenotypically good (Table A.2.B.2.1.1) and the same will be retained as candidate plus tree in the division.

Table A.2.B.2.1.1 Growth data of Candidate Plus Tree of *Adina cordifolia* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAN/AC/1	12	3	1.9	13	10	7	10	10

A.2.B.2.2 *Anogeissus latifolia*

Only 1 tree of the species was retained as candidate plus tree in the division after the rejection of 2 trees (Table A.2.B.2.2.1).

Table A.2.B.2.2.1 Growth data of Candidate Plus Tree of *Anogeissus latifolia* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/AL/1	20	6	1.40	5	5	10	10	10

A.2.B.2.3 *Azadirachta indica*

Phenotypically good tree was observed in the division and will be retained as candidate plus tree. The growth data of the same is as follow:

Table A.2.B.2.3.1 Growth Data of Candidate Plus Tree of *Azadirachta indica* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/AI/1	5	1.5	1.15	7	11	10	7	10

A.2.B.2.4 *Bombax ceiba*

After rejection, 4 trees were there which had desirable phenotypical appraisal (Table A.2.B.2.4.1). Hence all the 4 candidate plus trees will be retained as candidate plus trees.

Table A.2.B.2.4.1 Growth data of Candidate Plus Trees of *Bombax ceiba* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BATH/BC/1	15	3	3.30	18	12	10	10	10
BATH/BC/2	13	3	3.00	24	19	7	10	10
BATH/BC/5	14	3	2.00	13	12	10	10	10
BATH/BC/6	20	8	3.10	8	8	10	10	10

A.2.B.2.5 *Buchanania cochinchinensis*

After rejecting 2 trees in the division, 5 trees will be retained as candidate plus trees in the division. The growth data of the same is as follow:

Table A.2.B.2.5.1 Growth data of Candidate Plus Trees of *Buchanania cochinchinensis* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JHIL/BL/1	10	6	125	19	7	10	7	10
JHIL/BL/2	17	5	1.20	7	6	7	10	10
RANI/BL/1	16	7	0.92	3	4	10	10	10
RANI/BL/2	15	6	0.93	3.5	7	10	10	10
JHIL/BL/5	15	6	0.36	2	3	10	10	10

A.2.B.2.6 *Cassia siamea*

Only 1 tree was good phenotypically (Table A.2.B.2.6.1) in the division and will be retained as candidate plus tree.

Table A.2.B.2.6.1 Growth data of Candidate Plus Tree of *Cassia siamea*in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RANI/CS/5	9	5	1.20	8	6	10	7	10

A.2.B.2.7 *Cleistanthus collinus*

After rejecting 2 trees, only 1 tree left in the division who was phenotypically good tree (table A.2.B.2.7.1) and will be retained as candidate plus tree.

Table A.2.B.2.7.1 Growth data of Candidate Plus Trees of *Cleistanthus collinus* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/CC/1	8	2.5	0.90	5	10	10	7	10

A.2.B.2.8 *Diospyros melanoxylon*

Only 1 tree of *the species* was found to be phenotypically good in the division (Table A.2.B.2.8.1). The same will be retained as candidate plus tree in the division.

Table A.2.B.2.8.1 Growth data of Candidate Plus Tree of *Diospyros melanoxylon* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/DM/3	23	6	1.50	3	3	8	10	10

A.2.B.2.9 *Eucalyptus citriodora*

Two healthy trees were found in the division and both will be retained as candidate plus trees.

Table A.2.B.2.9.1 Growth data of Candidate Plus Trees of *Eucalyptus citriodora* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HATI/EC/1	22	10	2.50	26	13	10	10	10
HATI/EC/2	21	9	1.75	10	9	7	10	10

A.2.B.2.10 *Lagerstroemia parviflora*

Only 2 trees of the species were found in the division. The trees were phenotypically good (Table A.2.B.2.10.1) and the same will be retained as candidate plus trees in the division.

Table A.2.B.2.10.1 Growth data of Candidate Plus Tree of *Lagerstroemia parviflora* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/LP/1	15	6	0.80	3	6	8	10	10
SUTA/LP/2	14	5	0.55	3.50	3	8	10	10

A.2.B.2. 11 *Pterocarpus marsupium*

In totality, 9 trees of the species were found in division. The growth data of the trees is presented in Table A.2.B.2.11.1.

Table A.2.B.2.11.1 Growth data of Candidate Plus Trees of *Pterocarpus marsupium* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HIRB/PM/1	11	3	1.15	20	16	10	7	10
HIRB/PM/2	12	6	1.30	9	10	7	10	10
HIRB/PM/3	13	5	1.75	27	15	10	10	10
RANI/PM/1	14	6	1.40	8	7	10	7	10
RANI/PM/2	14	9	1.95	14	9	10	10	10
RANI/PM/3	13	3	1.35	22	12	7	10	10
RANI/PM/4	14	9	1.31	8	10	10	7	10
SUTA/PM/1	18	5	1.10	4.5	4	10	10	10
SUTA/PM/2	14	4.5	1.10	3	5	10	10	10

As all the trees are in 3 different locations, hence all the trees will be retained as candidate plus trees. However as the number of candidate plus trees are more than 6, data of same can be compared for the selection of plus trees.

After giving score and weightage to each trait (Annexure-II, Table II.13, II.14 & II.15) the total weighted scores of the trees are as follow:

Table A.2.B.2.11.2 Total Weightage Score of Candidate Plus Trees of *Pterocarpus marsupium*in Bankura (S) Division

Tree No.	Total Weightage Score
HIRB/PM/1	73.25
HIRB/PM/2	78.25
HIRB/PM/3	87.5
RANI/PM/1	81
RANI/PM/2	96
RANI/PM/3	76.5
RANI/PM/4	85.25
SUTA/PM/1	84
SUTA/PM/2	81
Mean	**82.52**

At Hiraband and Sutan location only 1 tree is above average value, hence HIRB/PM/3 and SUTA/PM/1 will be marked as plus tree and rest will be retained as candidate plus trees. At Raniband location (Fig. A.2.B.2.11.1) all trees are within 1 hectare area, hence RANI/PM/2 will be marked as plus tree.

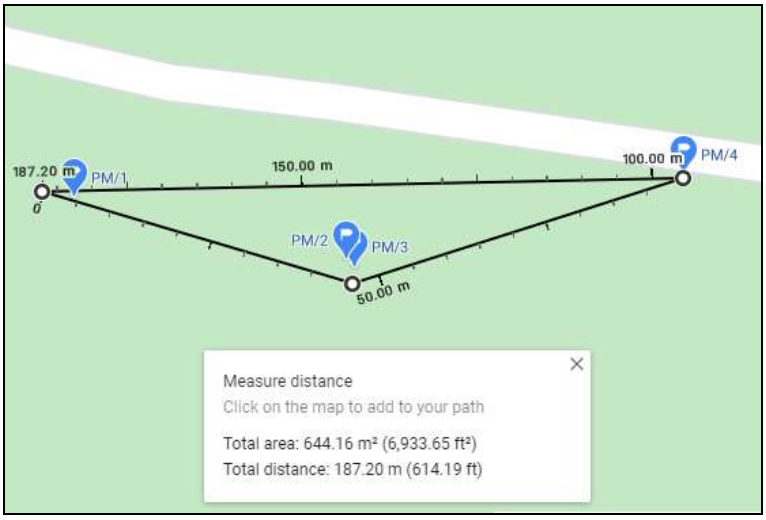


Fig. A.2.B.2.8.1 Area and Location of Different Trees of *Pterocarpus marsupium* in Bankura (S) Division

A.2.B.2.12 *Schleichera trijuga*

Only 1 phenotypically desirable tree was found in the division and same will be retained as candidate plus tree. The growth data of the tree is as follow:

Table A.2.B.2.12.1 Growth data of Candidate Plus Trees of *Schleichera trijuga* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/ST/1	14	2.5	2.25	22	30	10	7	10

A.2.B.2.13 *Shorea robusta*

6 phenotypically desirable candidate plus trees were found in the division after the rejection of 1 tree and all will be retained as candidate plus trees as are distributed over a large area in 3 locations.

Table A.2.B.2.13.1 Growth data of Candidate Plus Trees of *Shorea robusta* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HIRB/SR/1	11	5	1.86	23	14	10	7	10
HIRB/SR/2	12	5	1.7	19	8	7	10	10
JHIL/SR1	22	10	1.4	9	8	10	10	10
JHIL/SR1	21	16	1.50	9	24	10	7	10
SUTA/SR/2	18	5	1.15	8	6	10	10	10
SUTA/SR/3	20	16	1.15	7	6	7	10	10

A.2.B.2.14 *Soymida febrifuga*

Only 4 trees were found in the division and were phenotypically good (Table A.2.B.2.14.1). All the trees will be retained as candidate plus trees.

Table A.2.B.2.14.1 Growth data of Candidate Plus Trees of *Soymida febrifuga* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RANI/SF/1	7	3	1.3	7	9	10	7	10
RAN/SF/2	20	8	1.30	6.5	5	10	10	10
RAN/SF/3	19	12	1.25	5.0	3	10	10	10
SUTA/SF/1	17	8	0.95	4	7	7	10	10

A.2.B.2.15 *Tectona grandis*

Only 1 tree had the desirable phenotypic traits (Table A.2.B.2.15.1) out of 4 and same will be retained as candidate plus tree.

Table A.2.B.2.12.1 Growth data of Candidate Plus Trees of *Tectona grandis* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RANI/TG/2	13	5	2.35	23	19	10	7	10

A.2.B.2.16 *Terminalia alata*

7 trees were observed in the division in 2 locations and had good phenotypic appraisal (Table A.2.B.2.16.1). All the trees will be retained as candidate plus trees.

Table A.2.B.2.16.1 Growth data of Candidate Plus Trees of *Terminalia alata* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JHIL/TA/1	15	4	0.75	4	10	10	7	10
JHIL/TA/2	23	8	1.23	3.0	3	10	10	10
JHIL/TA/3	15	4	1.20	7.5	11	7	10	10
JHIL/TA/4	15	9	1.10	5	6	10	7	10
JHIL/TA/5	16	6.5	1.00	8.5	12	10	7	10
JHIL/TA/6	14	5	1.00	9	7	10	10	10
SUTA/TA/1	18	15	1.25	9	13	10	10	10
SUTA/TA/2	20	13	1.05	8	7	7	10	10
SUTA/TA/3	22	10	1.13	4	5	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in Para B.2.B.1.11.

A.2.B.2.17 *Terminalia bellirica*

7 trees of the species were found phenotypically desirable (Table A.2.B.2.17.1) after the rejection of 3 trees in the division.

Table A.2.B.2.17.1 Growth data of Candidate Plus Trees of *Terminalia bellirica* in Bankura (S) Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HIRB/TB/1	10	6	125	19	7	10	7	10
JHIL/TB/1	17	5	1.20	7	6	7	10	10
RANI/TB/1	11	6	1.40	7	9	10	10	10
RANI/TB/2	13	7	1.20	9	12	10	10	10
SUTA/TB/1	16	3	0.95	5	14	7	10	10
SUTA/TB/2	18	7	0.95	6	11	10	10	10
SUTA/TB/6	22	6	1.00	4	10	10	10	10

To finalize the trees to be retained and further selection of plus trees, data was further analyzed (Annexure-II, Table II.16, II.17 & II.18) and total weighted scores of the same are as follow:

Table A.2.B.2.17.2 Total Weightage Score of Candidate Plus Trees of *Terminalia bellirica* in Bankura (S) Division

Tree No.	Total Weightage Score
HIRB/TB/1	84.75
JHIL/TB/1	84.25
RANI/TB/1	90.75
RANI/TB/2	90.75
SUTA/TB/1	75.75
SUTA/TB/2	89.5
SUTA/TB/6	90.5
Average	**86.61**

In Raniband location both trees are very close to each other (Fig A.2.B.2.17.2), hence any one RANI/TB/1 will be marked as plus tree. In Sutan location, SUTA/TB/6 will be marked as plus tree, as all trees are located within 1 hectare (Fig A.2.B.2.17.2). Remaining trees will be retained as candidate plus trees.

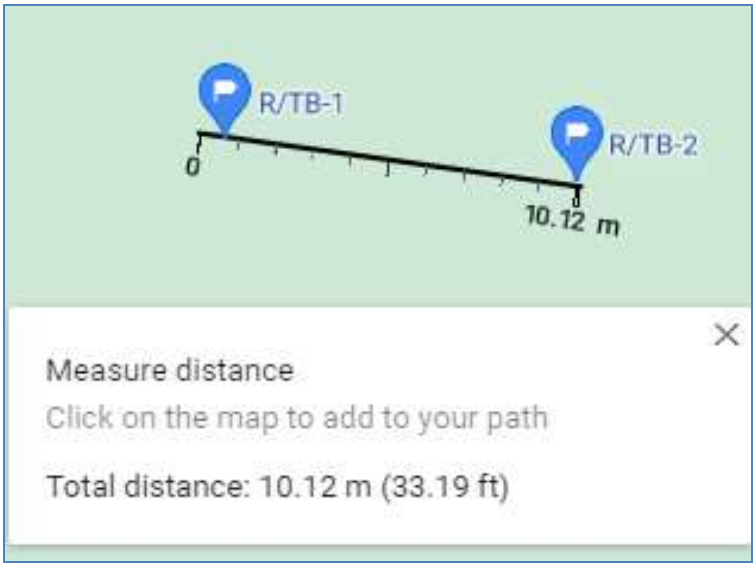


Fig A.2.B.2.17.1 Area and Location of Different Trees of *Terminalia bellirica* in Raniband Location Bankura (S) Division

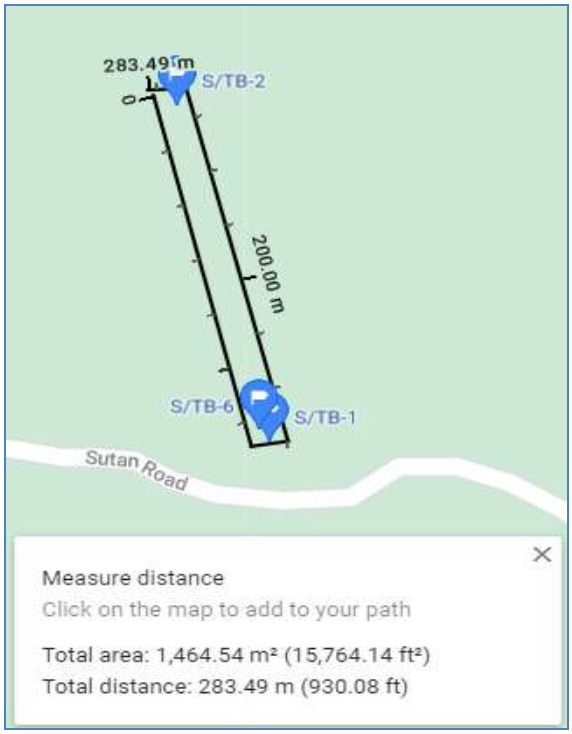


Fig A.2.B.2.17.2 Area and Location of Different Trees of *Terminalia bellirica* in Sutan Location Bankura (S) Division

A.2.B.2.18 *Terminalia chebula*

3 phenotypically good trees were observed in the division and all will be retained as candidate plus trees. The growth of same is as follow:

Table B.2.18.1 Growth data of Candidate Plus Trees of *Terminalia chebula* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SUTA/TC/1	19	5.5	1.25	8	13	10	10	10
SUTA/TC/2	19	3	1.60	7	9	7	7	10
SUTA/TC/3	18	4.5	1.15	7	14	10	10	10

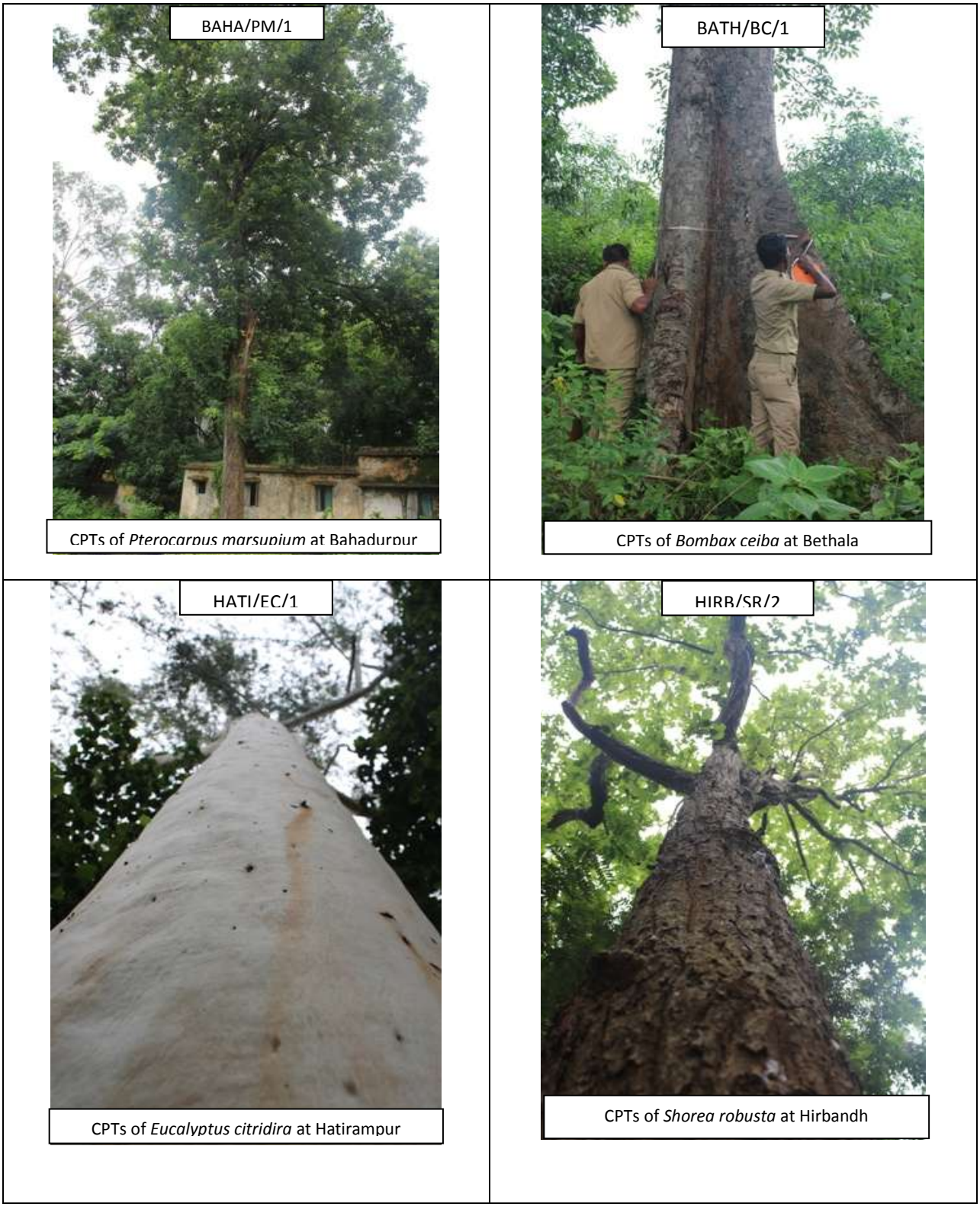


Fig. A.2.C.1 Glimpse of Existing Candidate Plus Trees in Bankura (South) Division

A.2.C. Birbhum Division

6 plus trees of 1 species were recorded in the division (Table A.2.C.1).

Table A.2.C.1 Abstract of Plus Trees in Burdwan Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	6	0	6	0	6	0
Total		6	0	6	0	6	**0**

A.2.C.1 Direct Rejection of Candidate Plus Trees in the Field on the basis of phenotypic traits

No direct rejection was done as all the trees were phenotypically good and healthy.

A.2.C.2 Analysis of Data

Data on phenotypic traits was analyzed to get desired number of candidate plus trees (depending upon the area).

A.2.C.2.1 *Acacia auriculiformis*

6 phenotypically good trees were observed in the division (Table A.2.C.2.1.1).

Table A.2.C.2.1.1 Growth data of Plus Trees of *Acacia auriculiformis* in Birbhum Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
GOAL/AA/1	20	7	1.17	5	4	10	10	10
GOAL/AA/2	18	7	1.01	5	6	10	10	10
GOAL/AA/3	17	9	1.11	7	4	10	10	10
GOAL/AA/4	18	9	0.99	5	4	10	10	10
GOAL/AA/5	22	7	1.35	5	4	10	10	10
TAJP/AA/1	25	15	1.60	10	4	10	10	10

To finalize the trees to be retained and further selection of plus trees, data was further analyzed (Annexure-II, Table II.19, II.20 & II.21) and total weighted scores of the same are as follow:

Table A.2.C.2.1.2 Total Weightage Score of trees of *Acacia auriculiformis* in Birbhum Division

Tree No.	Total Weightage Score
GOAL/AA/1	81.5
GOAL/AA/2	77
GOAL/AA/3	78.75
GOAL/AA/4	78.5
GOAL/AA/5	83.5
TAJP/AA/1	99.5

All the trees are located within 1 hectare area (Fig. A.2.C.2.1.1), hence only one plus tree i.e. TAJP/AA/1 will be retained as plus tree and remaining will be marked as candidate plus trees.

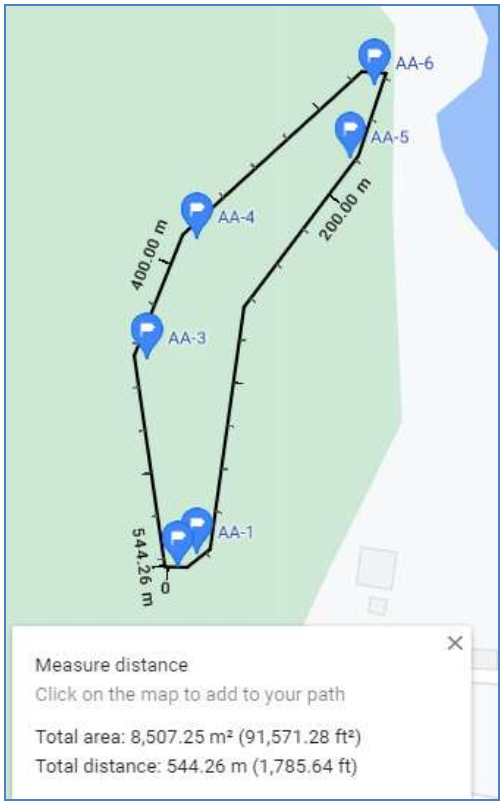


Fig A.2.C. 2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in Birbhum Division

A.2.D. Burdwan Division

Only plus trees of 1 species were there in the division as per record.

Table A.2.D.1 Abstract of Plus Trees in Burdwan Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	6	0	6	0	6	0
Total		6	0	6	0	6	**0**

A.2.D.1 Direct Rejection of Candidate Plus Trees in the Field on the basis of phenotypic traits

No direct rejection was done as all the trees were phenotypically good and healthy.

A.2.D.2 Analysis of Data

Data on phenotypic traits was analyzed to get desired number of candidate plus trees (depending upon the area).

A.2.D.2.1 *Acacia auriculiformis*

6 plus trees were located in the division and all were phenotypically healthy as presented in table A.2.D.2.1.1.

Table A.2.D.2.1.1 Growth data of Plus Trees of *Acacia auriculiformis* in Burdwan Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CORA/AA/1	22	7	1.40	10	10	10	10	10
CORA/AA/2	22	6	1.24	10	11	10	10	10
CORA/AA/3	22	6	1.22	6	8	10	10	10
CORA/AA/4	22	7	1.30	6	4	10	10	10
CORA/AA/5	22	7	1.15	6	6	10	10	10
CORA/AA/6	22	12	1.18	7	6	10	10	10

To finalize the trees to be retained and further selection of plus trees, data was further analyzed (Annexure-II, Table II.22, II.23 & II.24) and total weighted scores of the same are as follow:

Table A.2.D.2.1.1 Total Weightage Score of trees of *Acacia auriculiformis* in Bardwan Division

Tree No.	Total Weightage Score
CORA/AA/1	91.75
CORA/AA/2	86
CORA/AA/3	84.5
CORA/AA/4	86
CORA/AA/5	82.25
CORA/AA/6	90.5

All the trees are located within 1 hectare area (Fig. A.2.D.2.1.1), hence only one plus tree i.e. CORA/AA/1 will be retained as plus tree and remaining will be marked as candidate plus trees.

Fig A.2.D.2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in Burdwan Division

A.2.E Jhargram Division

As per the division's official record, found 13 plus trees of two species (Table A.2.E.1) and collected the required data of the same.

Table A.2.E.1 Abstract of Plus Trees in Jhargram Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Terminalia alata*	10	0	10	0	10	0
2	*Acacia auriculiformis*	3	0	3	0	3	0
Total		**13**	**0**	**13**	**0**	**13**	**NIL**

In case of Candidate plus trees, the list was of 271 trees of 10 species, however 31 trees of 3 species were located in Police Training Centre, which could not be covered. (Table A.2.E.2).

Table A.2.E.2 Abstract of Candidate Plus Trees in Jhargram Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	30	0	30	0	30	0
3	*Acacia mangium*	30	0	30	0	30	0
4	*Dalbergia sissoo*	8	0	8	0	8	0
5	*Emblica officinalis*	22	0	22	0	22	0
6	*Eucalyptus hybrid*	40	0	40	0	40	0
8	*Pterocarpus marsupium*	26	0	0	26	26	0
9	*Pterocarpus santalinus*	3	0	0	3	3	0

10	*Terminalia alata*	90	0	90	0	90	0
11	*Terminalia arjuna*	20	0	20	0	20	0
12	*Terminalia chebula*	2	0	0	2	2	0
Total		**271**	**0**	**240**	**31**	**271**	**NIL**

A.2.E.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

One plus tree of *Terminalia alata* (Table A.2.E.1.1) and 38 candidate plus trees of 5 species (Table A.2.E.1.2) were discarded from the list on the basis phenotypical characters observed in the field which is not a desirable character in timber species. In most of the cases, the undesirable character was many branches which have been merged right near the base of tree, spoiling the clear bole.

Table A.2.E.1.1 Abstract of Plus Trees Rejected in Jhargram Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Terminalia alata*	01	NNGR/TA/9	Nunnungeria	Branches started appearing just at the height of 3 meter from the base, which is not desirable for knot free timber.

Table A.2.E.1.2 Abstract of Candidate Plus Trees Rejected in Jhargram Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Acacia auriculiformis*	7	NNGR/AA/3	Nunnungeria	The tree was found dead and dry at the top
			NNGR/AA/8	Nunnungeria	The main trunk was bend from 2.5 meter height from the base.
			NNGR/AA/13	Nunnungeria	Bole was crooked at the height of 3 meter from the base
			NNGR/AA/14	Nunnungeria	The bole was not straight and a markable bend at the top

			NNGR/AA/15	Nunnungeria	The tree was found dead and dry at the top
			NNGR/AA/20	Nunnungeria	The tree was found dead and dry at the 11m upwards.
			NNGR/AA/28	Nunnungeria	The bole was not straight and also forking was observed which is not desirable character.
2	*Acacia mangium*	13	NNG/AM/3	Nunnungeria	Bole was not straight and was bend from the middle.
			NNG/AM/6	Nunnungeria	The upper part of the tree was dead and dry
			N**N**G/AM/9	Nunnungeria	Tree was bend just from the base
			NNG/AM/12	Nunnungeria	Tree was cut from the base.
			NNG/AM/13	Nunnungeria	Upper part of the tree was totally damaged
			NNG/AM/14	Nunnungeria	Tree was cut from the base.
			NNG/AM/16	Nunnungeria	Tree was cut from the top
			NNG/AM/19	Nunnungeria	Tree was bend just from the base
			NNG/AM/20	Nunnungeria	Top part of the tree was broken and damaged
			NNG/AM/22	Nunnungeria	The tree was damaged at the height of 13 m from the base
			NNG/AM/23	Nunnungeria	The top part of the tree was dead and dry
			NNG/AM/29	Nunnungeria	The tree was broken at the height of 11 m
			NNG/AM/31	Nunnungeria	The top part of the tree was dead and dry
3	*Terminalia alata*	9	NNGR/TA/42	Nunnungeria	No clear bole, branches started at 3m height from base, which is not desirable timber character.
			NNGR/TA/43	Nunnungeria	No clear bole, branches started at 2.5 m height from base, which is not desirable timber character.

			NNGR/TA/45	Nunnungeria	Many branches which starts from 3.5 height from base.
			NNGR/TA/53	Nunnungeria	Braches started at 2.5 height from base, which may result to knots, not a desirable character.
			NNGR/TA/75	Nunnungeria	Top of tree broken and damaged.
			NNGR/TA/79	Nunnungeria	Top of tree dead and dried
			NNGR/TA/80	Nunnungeria	Tree totally damaged and started drying.
			NNGR/TA/82	Nunnungeria	Tree standing upto 6m and entire part has been dried.
			NNGR/TA/88	Nunnungeria	Bole is not straight and remarkable bend at 5m height
4	*Dalbergia sissoo*	6	NNGR/SD/2	Nunnungeria	The tree bole was bending starting from the base of the tree.
			NNGR/SD/3	Nunnungeria	Branches started at very less height showing many main branches like shrub and nature of forking too.
			NNGR/SD/4	Nunnungeria	Branches started at very less height showing many main branches like shrub and nature of forking too.
			NNGR/SD/6	Nunnungeria	Tree was bent at a height of 2 meter from the base, making it unsuitable as timber tree.
			NNGR/SD/8	Nunnungeria	Branches started at very less height showing many main branches like shrub and nature of forking too.
			NNGR/SD/9	Nunnungeria	Branches started at very less height showing many main branches like shrub and nature of forking too.
5	*Eucalyptus hybrid*	3	MNK/EH/7		
			MNK/EH/14		

			MNK/EH/39		

A.2.E.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees and Candidate Plus Trees and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.2.E.2.1 *Acacia auriculiformis*

In totality 26 trees of *Acacia auriculiformis* were found in the division after rejection. The growth data of the same is as follow:

Table A.2.E.2.1.1 Growth data of Plus Trees and Candidate Plus Trees of *Acacia auriculiformis* in Jhargram Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNG/AA/4	24	13.5	1.06	7	4	10	10	10
NNG/AA/6	23	14	1	8	5	10	7	10
NNG/AA/3	24	14	1.4	12	9	10	10	10
NNGR/AA/2	12	4	0.8	2.5	5	7	10	10
NNGR/AA/4	27.0	10	0.70	6.50	5	8	10	10
NNGR/AA/5	29.0	13	0.85	5.50	3	8	10	10
NNGR/AA/6	22	8	1.07	6.5	8	7	7	10
NNGR/AA/7	22	10	0.76	4	5	10	7	10
NNGR/AA/9	20	7	1.39	15	8	7	10	10
NNGR/AA/10	23	3	1.27	10	9	7	7	10
NNGR/AA/11	17	8	0.81	7	6	7	10	10
NNGR/AA/12	24	13	0.95	5	8	10	10	10
NNGR/AA/16	23	3.5	1.33	13	14	7	10	10
NNGR/AA/18	20	3	0.86	6.4	6	7	10	10
NNGR/AA/19	23	12	0.83	5	6	10	7	10
NNGR/AA/21	22	15	0.84	5	8	10	10	10
NNGR/AA/22	20	9	0.76	5	7	7	10	10
NNGR/AA/23	20	13	0.8	6	4	10	7	10
NNGR/AA/24	18	8	0.75	5	7	7	10	10
NNGR/AA/25	24	14	1.9	8	9	10	10	10
NNGR/AA/26	23	14	1	6	9	10	7	10
NNGR/AA/27	18	5	0.77	7	5	10	10	10
NNGR/AA/29	17	10	0.78	7	8	7	10	10

NNGR/AA/30	19	12	0.78	7	5	7	10	10
NNGR/AA/31	22	14	0.87	6	14	7	10	10
NNGR/AA/32	20	7	0.96	8	14	7	10	10

**The bold texts are of Plus Trees.*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure – II, Table II.25, II.26 & II.27)and finally the total weightage score was computed as below:

Table A.2.E.2.1.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Acacia auriculiformis* in Jhargram Division

Tree No.	Total Weightage Score
NNG/AA/4	90.75
NNG/AA/6	86.75
NNG/AA/3	93.75
NNGR/AA/2	71.75
NNGR/AA/4	83.5
NNGR/AA/5	87.25
NNGR/AA/6	76.75
NNGR/AA/7	78.75
NNGR/AA/9	82
NNGR/AA/10	76.5
NNGR/AA/11	77.5
NNGR/AA/12	91.25
NNGR/AA/16	82
NNGR/AA/18	75
NNGR/AA/19	82.5
NNGR/AA/21	87.75
NNGR/AA/22	79
NNGR/AA/23	82.75
NNGR/AA/24	77.5
NNGR/AA/25	91.5
NNGR/AA/26	86.75
NNGR/AA/27	78
NNGR/AA/29	77.75
NNGR/AA/30	81
NNGR/AA/31	83.75
NNGR/AA/32	80
Average	**82.38**

All the trees are within the periphery of 1 hectare (A.2.E.2.1.1), hence only one plus tree (NNG/AA/3) will be retained along with 6 candidate plus trees (NNGR/AA/25, NNGR/AA/12, NNGR/AA/4, NNGR/AA/21, NNGR/AA/5 and NNGR/AA/26). Remaining trees will be discarded from the list.

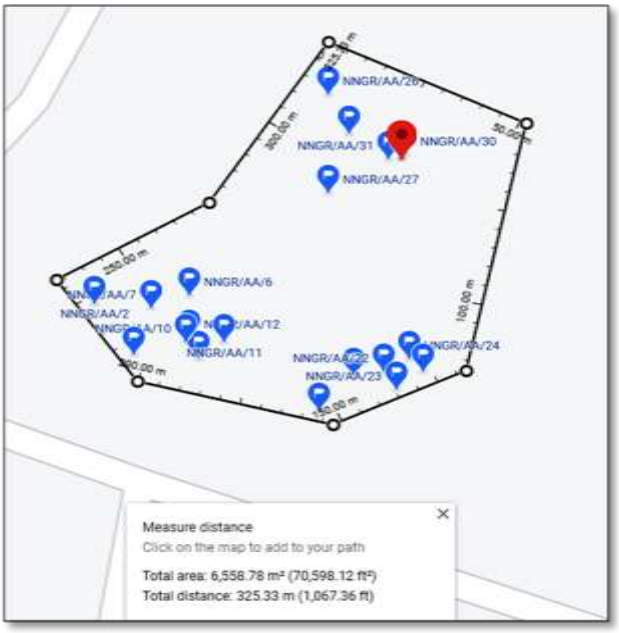


Fig. A.2.E.2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in Jhargram Division

A.2.E.2.2 *Acacia mangium*

After field rejection, 17 candidate plus trees were remained there for further selection of plus trees and candidate plus trees. The recorded growth data of 17 trees are as:

Table A.2.E.2.2.1 Growth data of Candidate Plus Trees of *Acacia mangium* in Jhargram Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNG/AM/1	21	12	1.5	8	12	7	7	10
NNG/AM/2	20	11	1.7	6	13	7	7	10
NNG/AM/4	20	6	1.1	10	17	7	7	10
NNG/AM/5	18	13	0.85	8	9	10	10	10
NNG/AM/7	23	11	1.15	8	14	10	10	10
NNG/AM/8	21	12	1.27	16	19	10	7	10
NNG/AM/10	27.0	10	1.05	7.25	6	8	10	10
NNG/AM/11	15	7	1.12	8	13	7	7	10
NNG/AM/15	22	17	1.09	5	7	10	10	10
NNG/AM/17	27.0	10	1.16	6.00	4	10	6	10
NNG/AM/18	25.0	8	1.10	5.50	3	10	10	10
NNG/AM/21	22	16	0.17	9	13	10	10	10
NNG/AM/24	27	10	1.13	4.75	3	7	10	10
NNG/AM/25	23	11	1.02	9	10	10	10	10
NNG/AM/26	24	11	0.78	6.25	4	10	10	10
NNG/AM/27	13	6	0.78	4.55	4	7	10	10
NNG/AM/30	21	11	0.96	6	7	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.2.C.1.1.

A.2.E.2.3 *Dalbergia sissoo*

The phenotypical appraisal of 2candidate plus trees was satisfactory (Table A.2.E.2.3.1), hence both the trees will be retained as candidate plus trees.

Table A.2.E.2.3.1 Growth data of Candidate Plus Trees of *Dalbergia sissoo* in Jhargram Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/SD/1	20	4	1.43	16.5	21	7	7	10
NNGR/SD/5	23	5	1.34	15	11	7	7	10

A.2.E.2.4 *Emblica officinalis*

Phenotypically all the trees exhibit good phenotype as per the fruiting value. The observed growth data is placed in A.2.E.2.4.1.

Table A.2.E.2.4.1 Growth data of Candidate Plus Trees of *Emblica officinalis* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/EO/1	8	0.91	0.64	10.5	10	7	7	10
NNGR/EO/2	8	0.91	0.95	15	17	7	7	10
NNGR/EO/3	8	0.3	0.93	15.8	18	4	7	10
NNGR/EO/4	7.5	0.5	0.92	9.5	18	4	7	10
NNGR/EO/5	6.5	0.25	0.5	7.5	8	4	7	10
NNGR/EO/6	6	0.1	0.74	8	14	4	7	10
NNGR/EO/7	8	0.1	0.78	9	13	4	7	10
NNGR/EO/8	8	0.2	0.93	12	16	4	7	10
NNGR/EO/9	8	1.5	1.032	11	14	4	7	10
NNGR/EO/10	7.5	0.1	0.8	10	13	4	7	10
NNGR/EO/11	8	0.25	0.95	12	19	4	7	10
NNGR/EO/12	8	0.2	0.78	14.5	9	4	7	10
NNGR/EO/13	4.5	0.3	0.82	7	8	4	7	10

NNGR/EO/14	7.5	0.1	0.95	13	15	4	7	10
NNGR/EO/16	8	2.5	0.83	8.5	7	4	7	10
NNGR/EO/17	8	0.2	0.81	8.5	10	4	7	10
NNGR/EO/18	6	2	0.58	3.5	5	7	7	10
NNGR/EO/19	6	1	0.85	4	7	4	7	10
NNGR/EO/20	5	1.5	0.72	7	13	7	7	10
NNGR/EO/21	5	2	0.64	4	6	4	7	10
NNGR/EO/22	6.5	0.1	1.2	15	22	4	7	10
NNGR/EO/23	5	0.1	0.58	9	13	4	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.2.C.1.10.

A.2.E.2.5 *Eucalyptus hybrid*

37 healthy candidate plus trees were observed in the division after rejection of 3 trees (Table A.2.E.2.5.1).

Table A.2.E.2.5.1 Growth data of Candidate Plus Trees of *Eucalyptus hybrid* in Jhargram Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MNK/EH/1	23	11	1.70	6.50	6	10	10	10
MNK/EH/2	25	11	1.75	5.55	5	10	6	10
MNK/EH/3	33	15	1.70	4.55	3	10	10	10
MNK/EH/4	33	15	1.70	4.65	3	10	10	10
MNK/EH/5	18	8	1.20	6.25	4	10	10	10
MNK/EH/6	22	9	1.20	5.75	5	8	10	10
MNK/EH/8	28	12	1.60	5.20	3	10	10	10
MNK/EH/9	28	12	1.30	4.50	4	10	10	10
MNK/EH/10	19	9	1.20	4.25	4	8	10	10
MNK/EH/11	25	12	1.60	4.00	3	8	10	10
MNK/EH/12	30	14	1.90	5.25	4	8	10	10
MNK/EH/13	30	14	1.60	5.00	4	10	10	10
MNK/EH/15	22	10	1.70	4.50	4	8	10	10
MNK/EH/16	28	12	1.60	4.55	4	8	10	10

MNK/EH/17	23	10	1.70	5.25	5	8	10	10
MNK/EH/18	17	7	1.1	5.35	5	8	10	10
MNK/EH/19	23	10	1.80	4.50	4	8	10	10
MNK/EH/20	23	10	1.80	3.50	4	8	10	10
MNK/EH/21	19	17	1.5	3.70	4	8	10	10
MNK/EH/22	22	9	1.80	3.85	4	8	10	10
MNK/EH/23	23	10	1.70	3.20	3	8	10	10
MNK/EH/24	18	9	1.05	3.50	4	8	10	10
MNK/EH/25	23	10	1.20	3.50	3	8	10	10
MNK/EH/26	24	11	1.50	3.60	3	8	10	10
MNK/EH/27	23	11	1.45	3.85	5	8	10	10
MNK/EH/28	25	12	1.60	4.20	4	10	10	10
MNK/EH/29	18	8	1.30	4.00	4	10	10	10
MNK/EH/30	28	14	1.50	3.50	3	8	10	10
MNK/EH/31	28	14	1.50	3.10	4	8	10	10
MNK/EH/32	29	13	1.90	3.00	3	8	10	10
MNK/EH/33	18	8	1.40	3.50	3	8	10	10
MNK/EH/34	19	9	1.40	3.60	4	8	10	10
MNK/EH/35	28	14	1.20	3.30	4	8	10	10
MNK/EH/36	18	8	1.40	4.25	4	8	10	10
MNK/EH/37	20	10	1.40	3.70	4	8	10	10
MNK/EH/38	28	14	1.70	4.10	4	8	10	10
MNK/EH/40	22	10	1.20	5.20	4	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure – II, Table II.28, II.29 & II.30)and finally the total weightage score was computed as below:

Table A.2.E.2.5.2 Total Weightage Score of trees of *Eucalyptus hybrid* in Jhargram Division after Rejection

Tree No.	Total Weightage Score
MNK/EH/1	89.5
MNK/EH/2	86.5
MNK/EH/3	94.75
MNK/EH/4	94.75
MNK/EH/5	79.5
MNK/EH/6	78
MNK/EH/8	91.5
MNK/EH/9	87.5
MNK/EH/10	75.75
MNK/EH/11	86.5
MNK/EH/12	94.25
MNK/EH/13	95

MNK/EH/15	83.5
MNK/EH/16	88.5
MNK/EH/17	84
MNK/EH/18	74.5
MNK/EH/19	85.5
MNK/EH/20	85
MNK/EH/21	85.75
MNK/EH/22	85.25
MNK/EH/23	82.75
MNK/EH/24	75.5
MNK/EH/25	76.75
MNK/EH/26	84.5
MNK/EH/27	83.5
MNK/EH/28	89.75
MNK/EH/29	80.75
MNK/EH/30	87.75
MNK/EH/31	88
MNK/EH/32	89.75
MNK/EH/33	79.25
MNK/EH/34	79.75
MNK/EH/35	84
MNK/EH/36	79.75
MNK/EH/37	79.75
MNK/EH/38	90.25
MNK/EH/40	80.75
Average	**84.81**

All the trees are distributed within 2 hectare area (Fig. A.2.E.2.5.1), hence only two trees will be marked as plus trees (MNK/EH/13 and MNK/EH/3). 12 trees i.e. MNK/EH/4, MNK/EH/12, MNK/EH/8, MNK/EH/38, MNK/EH/28, MNK/EH/32, MNK/EH/1, MNK/EH/16, MNK/EH/31, MNK/EH/30, MNK/EH/9 and MNK/EH/2 will be retained as candidate plus trees. Rest trees will be removed from the list.

Fig. A.2.E.2.5.1 Area and Location of Different Trees of *Eucalyptus hybrid* in Jhargram Division

A.2.E.2.6 *Terminalia alata*

In totality 90 trees of *Terminalia alata*were found in the division after rejection. The growth data of the same is as follow:

Table A.2.E.2.6.1 Growth data of Plus Trees and Candidate Plus Trees of *Terminalia alata* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/TA/1	14	10.5	0.79	8	16	10	7	10
NNGR/TA/2	13	9	0.77	7	7	10	7	10
NNGR/TA/3	17	12	0.71	8	9	10	7	10
NNGR/TA/4	14	11	0.99	15	22	10	10	10
NNGR/TA/5	14	12	0.91	9	12	10	7	10
NNGR/TA/6	15	12	0.8	11	10	10	7	10
NNGR/TA/7	14	7	0.74	12	13	10	7	10
NNGR/TA/8	16	9	1.04	14.5	12	10	7	10

NNGR/TA/10	14	8.5	0.81	6	7	10	7	10
NNGR/TA/1	13.5	8	0.76	12	21	10	7	10
NNGR/TA/2	13.5	8	0.83	9	18	7	7	10
NNGR/TA/3	14	8	0.8	10	15	7	7	10
NNGR/TA/4	13	7	0.92	9	11	10	7	10
NNGR/TA/5	12	6	0.75	7	13	7	7	10
NNGR/TA/6	12	4.5	0.7	7	10	7	7	10
NNGR/TA/7	11	5.5	0.75	6	12	7	7	10
NNGR/TA/8	13	5	0.97	10	14	7	10	10
NNGR/TA/9	12	5	0.74	10	11	10	7	10
NNGR/TA/10	14	10	0.73	12	14	7	10	10
NNGR/TA/11	15	10	0.86	7	10	7	7	10
NNGR/TA/12	14	8	0.75	13	12	7	10	10
NNGR/TA/13	15	9	0.78	10	8	7	7	10
NNGR/TA/14	16	8	0.78	12	13	7	7	10
NNGR/TA/15	12	5	0.83	9	14	10	10	10
NNGR/TA/16	14	10	0.74	5	7	10	7	10
NNGR/TA/17	16	10	0.9	8	10	7	7	10
NNGR/TA/18	15	7	0.82	9	11	10	7	10
NNGR/TA/19	14	10	0.78	9	8	7	7	10
NNGR/TA/20	15	7	0.78	8	10	10	7	10
NNGR/TA/21	13	8	0.79	8	7	7	7	10
NNGR/TA/22	17	11	0.79	7	9	10	7	10
NNGR/TA/23	15	9	0.73	8	7	10	7	10
NNGR/TA/24	14.5	7	0.77	9	8	7	7	10
NNGR/TA/25	14	8	0.68	6	9	10	7	10
NNGR/TA/26	13	8	0.68	7	9	10	7	10
NNGR/TA/27	16	7	0.93	12	13	7	7	10
NNGR/TA/28	12	6.5	0.75	11	5	7	7	10
NNGR/TA/29	16	9	0.76	12	14	10	10	10
NNGR/TA/30	16	11	0.75	8	15	10	7	10
NNGR/TA/31	15	10	0.97	15	18	10	10	10
NNGR/TA/32	13.5	9	0.65	7	12	10	7	10
NNGR/TA/33	14	8	0.87	9	11	10	7	10
NNGR/TA/34	15	7	0.78	9	14	7	10	10
NNGR/TA/35	14	9	0.75	6	10	10	7	10
NNGR/TA/36	13	9	0.81	9	10	10	7	10
NNGR/TA/37	14	7.5	0.72	9	14	7	7	10
NNGR/TA/38	16	7	0.68	11	13	7	7	10
NNGR/TA/39	14	6	0.84	14.5	10	10	10	10
NNGR/TA/40	14.5	5.5	0.9	12	10	7	10	10
NNGR/TA/41	14	9	0.83	10	18	7	10	10
NNGR/TA/44	15	8	1.15	14	8	10	10	10
NNGR/TA/46	14	9	0.9	12.5	11	10	10	10
NNGR/TA/47	14	8	0.94	10	8	10	7	10

NNGR/TA/48	14	9.5	0.91	9	21	10	7	10
NNGR/TA/49	12	7.5	0.95	13	19	10	10	10
NNGR/TA/50	13.5	6.5	0.83	11	14	10	7	10
NNGR/TA/51	16	13	0.98	11	18	10	10	10
NNGR/TA/52	14	4	0.93	12	15	7	10	10
NNGR/TA/54	11.5	4.5	1.08	13	17	7	10	10
NNGR/TA/55	14	9	0.78	8	15	10	7	10
NNGR/TA/56	14	9	1.14	16	21	7	10	10
NNGR/TA/57	16	8	1.15	15.5	22	10	10	10
NNGR/TA/58	15	11	0.93	11.5	16	10	7	10
NNGR/TA/59	12.5	6.5	0.91	10	16	7	7	10
NNGR/TA/60	11	4	0.75	11	13	7	7	10
NNGR/TA/61	14	9	0.97	12	15	7	7	10
NNGR/TA/62	14	10.5	0.67	7.5	10	10	7	10
NNGR/TA/63	13	10	0.78	7	9	7	7	10
NNGR/TA/64	14.5	12.5	0.7	8	7	7	7	10
NNGR/TA/65	12.5	11.5	0.7	7	13	10	7	10
NNGR/TA/66	15	8	0.82	12	10	7	7	10
NNGR/TA/67	14	10	0.75	7	12	10	7	10
NNGR/TA/68	12.5	6.5	0.93	11	18	7	7	10
NNGR/TA/69	18	9	1.04	5.22	3	10	10	10
NNGR/TA/70	14	4.5	0.89	15	22	7	10	10
NNGR/TA/71	11	4.5	0.79	12	7	7	7	10
NNGR/TA/72	13	8.5	0.84	7	12	10	7	10
NNGR/TA/73	13	9.5	0.81	5	6	7	7	10
NNGR/TA/74	14	9	0.93	11.5	12	7	7	10
NNGR/TA/76	14.5	10	0.7	8	11	7	7	10
NNGR/TA/77	14	8.5	0.83	9	11	7	7	10
NNGR/TA/78	13.5	6.5	0.75	8	9	7	7	10
NNGR/TA/81	13	5	0.9	8	12	7	7	10
NNGR/TA/83	12.5	5	0.8	8	12	7	7	10
NNGR/TA/84	12.5	8	0.78	7.5	17	7	7	10
NNGR/TA/85	14	7.5	0.73	8	13	7	7	10
NNGR/TA/86	12	4.5	0.92	5	8	7	7	10
NNGR/TA/87	14	6.5	0.95	12	17	7	7	10
NNGR/TA/89	13	8	0.8	9.5	15	10	7	10
NNGR/TA/90	14	5.5	1.08	11	26	7	7	10

**The bold texts are of Plus Trees.*

After providing score and weightage to each trait (Annexure-II, Table II.31, II.32 & II.33), the total weighted scores are as follow:

Table A.2.E.2.6.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Terminalia alata* in Jhargram Division

Tree No.	Total Weightage Score
NNGR/TA/1	83.25
NNGR/TA/2	79.25
NNGR/TA/3	86
NNGR/TA/4	93
NNGR/TA/5	87.25
NNGR/TA/6	85.25
NNGR/TA/7	79.75
NNGR/TA/8	87.5
NNGR/TA/10	80.75
NNGR/TA/1	80.5
NNGR/TA/2	75.5
NNGR/TA/3	77
NNGR/TA/4	79.5
NNGR/TA/5	71.5
NNGR/TA/6	67.25
NNGR/TA/7	69.5
NNGR/TA/8	80
NNGR/TA/9	74.25
NNGR/TA/10	81.75
NNGR/TA/11	80.25
NNGR/TA/12	81.75
NNGR/TA/13	76.75
NNGR/TA/14	78.75
NNGR/TA/15	78.75
NNGR/TA/16	82.75
NNGR/TA/17	82
NNGR/TA/18	79
NNGR/TA/19	78.5
NNGR/TA/20	79
NNGR/TA/21	75
NNGR/TA/22	85.75
NNGR/TA/23	79
NNGR/TA/24	74.5
NNGR/TA/25	78.75
NNGR/TA/26	77.25
NNGR/TA/27	78.75
NNGR/TA/28	71.5
NNGR/TA/29	87.75
NNGR/TA/30	84.75
NNGR/TA/31	92.75
NNGR/TA/32	77.5
NNGR/TA/33	83
NNGR/TA/34	79.25
NNGR/TA/35	80.75

NNGR/TA/36	79.5
NNGR/TA/37	72.75
NNGR/TA/38	74.5
NNGR/TA/39	84.25
NNGR/TA/40	79.5
NNGR/TA/41	81.75
NNGR/TA/44	92.25
NNGR/TA/46	88
NNGR/TA/47	83.25
NNGR/TA/48	85.5
NNGR/TA/49	83.5
NNGR/TA/50	78
NNGR/TA/51	95.75
NNGR/TA/52	79.75
NNGR/TA/54	81
NNGR/TA/55	81.25
NNGR/TA/56	88.25
NNGR/TA/57	94.5
NNGR/TA/58	85.5
NNGR/TA/59	75.5
NNGR/TA/60	70
NNGR/TA/61	81.25
NNGR/TA/62	87
NNGR/TA/63	76.75
NNGR/TA/64	78.5
NNGR/TA/65	81.5
NNGR/TA/66	77
NNGR/TA/67	83
NNGR/TA/68	75.75
NNGR/TA/69	92
NNGR/TA/70	80.5
NNGR/TA/71	70
NNGR/TA/72	79.5
NNGR/TA/73	76.5
NNGR/TA/74	79
NNGR/TA/76	76.5
NNGR/TA/77	76.5
NNGR/TA/78	73
NNGR/TA/81	73.25
NNGR/TA/83	71.25
NNGR/TA/84	75.5
NNGR/TA/85	72.75
NNGR/TA/86	71.25
NNGR/TA/87	77.5
NNGR/TA/89	80

NNGR/TA/90	79.5
Average	**80.02**

As trees are distributed over an area of 12 hectare (Fig. Fig. A.2.E.2.6.1), 12 trees **(**NNGR/TA/57, **NNGR/TA/5**, NNGR/TA/46, NNGR/TA/51, **NNGR/TA/8**, NNGR/TA/56, NNGR/TA/31, NNGR/TA/44, NNGR/TA/69, NNGR/TA/29, **NNGR/TA/4** and NNGR/TA/62 (bold trees as already the plus trees)) will be marked as plus trees. Except NNGR/TA/6, NNGR/TA/7, NNGR/TA/71, NNGR/TA/60, NNGR/TA/86and NNGR/TA/83, remaining trees will be retained as candidate plus trees.

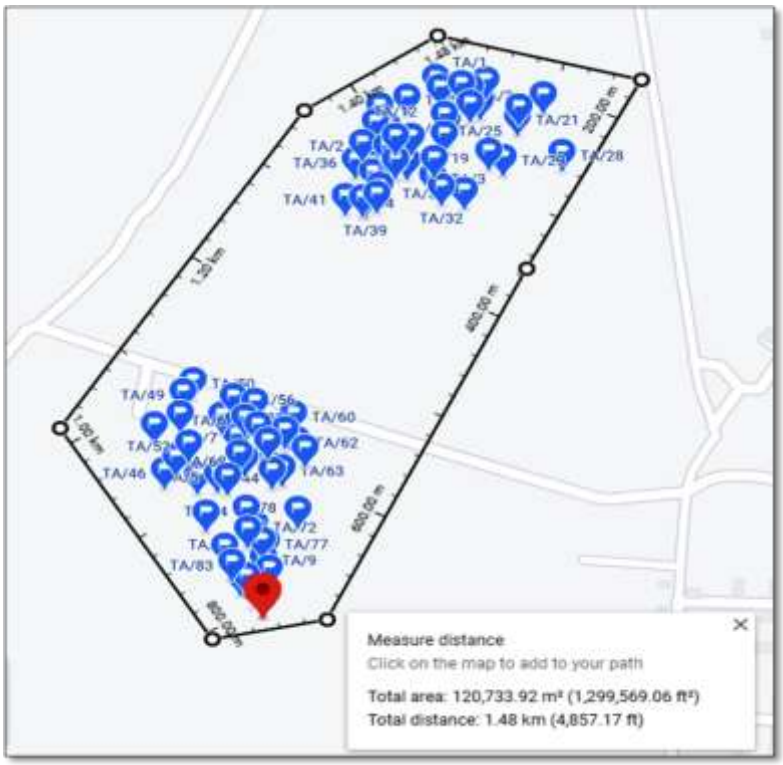


Fig. A.2.E.2.6.1 Area and Location of Different Trees of *Terminalia alata* in Jhargram Division

A.2.E.2.7 *Terminalia arjuna*

In totality 20 trees of *Terminalia arjuna* were found in the division and no rejection was there. The growth data of the same is as follow:

Table A.2.E.2.7.1 Growth data of Candidate Plus Trees of *Terminalia arjuna* in Jhargram Division

Tree No.						Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/Tar/1	18	10	0.98	8	15	10	7	10
NNGR/Tar/2	16	8	1	9	11	10	7	10
NNGR/Tar/3	16	6	0.98	8	13	10	7	10
NNGR/Tar/4	17	11	0.85	8	13	10	7	10
NNGR/Tar/5	16	9	0.91	12	16	10	10	10
NNGR/Tar/6	15	7	0.96	8	13	10	7	10
FTC/Tar/7	15	9	0.9	8.5	12	10	7	10
FTC/Tar/8	17	6.5	1.05	14	16	10	7	10
FTC/Tar/9	15	8	0.92	8.5	13	10	7	10
KKJR/Tar/10	18	12	0.85	8	13	10	7	10
KKJR/Tar/11	14	6	0.72	5	11	10	7	10
KKJR/Tar/12	15	8	1.01	14	22	10	7	10
KKJR/Tar/13	16	5	0.93	6	14	10	7	10
KKJR/Tar/14	16	4.5	0.92	6	14	10	7	10
KKJR/Tar/15	17	11	0.86	9	18	10	7	10
KKJR/Tar/16	17	8	0.97	10	16	10	7	10
KKJR/Tar/17	16	5	1	7	13	10	7	10
KKJR/Tar/18	17	12	1.07	7	13	10	7	10
KKJR/Tar/19	14	3	1.04	9	19	10	7	10
KKJR/Tar/20	14	3	0.98	7	13	10	7	10

After all the analysis (Annexure-II, Table II.34, II.35 & II.36), total weighted scores are as ahead:

Table A.2.E.2.7.2 Total Weightage Score of Candidate Plus Trees of *Terminalia arjuna* in Jhargram Division

Tree No.	Total Weightage Score
NNGR/Tar/1	90.25
NNGR/Tar/2	85
NNGR/Tar/3	83
NNGR/Tar/4	86.5
NNGR/Tar/5	92.5
NNGR/Tar/6	83.5
FTC/Tar/7	83.25
FTC/Tar/8	87.75
FTC/Tar/9	81.5
KKJR/Tar/10	88
KKJR/Tar/11	73.5
KKJR/Tar/12	87
KKJR/Tar/13	80.75
KKJR/Tar/14	80.75
KKJR/Tar/15	87.5
KKJR/Tar/16	87.25
KKJR/Tar/17	83
KKJR/Tar/18	92.5
KKJR/Tar/19	81
KKJR/Tar/20	78
Mean	**84.63**

As all the trees are within 1 hectare area (Fig. A.2.E.2.7.1), only 1 tree can be selected as plus tree, however, 2 trees have same weightage score on the top (KKJR/Tar/18 & NNGR/Tar/5), hence 2 trees will be marked as plus trees. NNGR/Tar/1, KKJR/Tar/10, FTC/Tar/8, KKJR/Tar/15, KKJR/Tar/16 and KKJR/Tar/12 will be retained as candidate plus trees. Remaining trees will be discarded from the list.

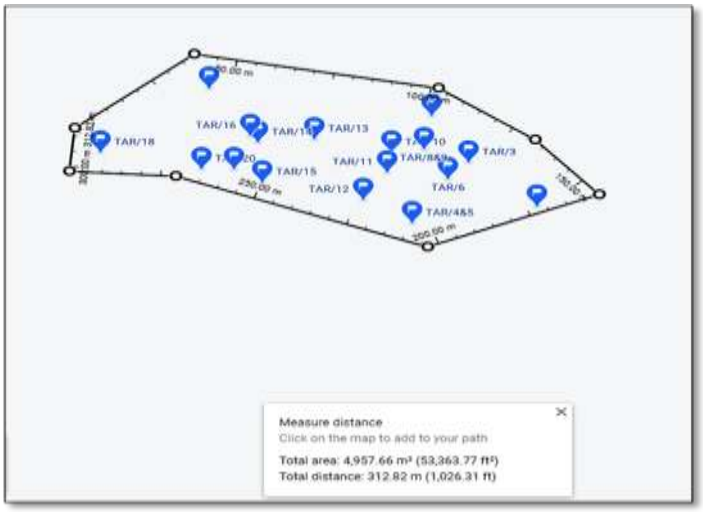


Fig. A.2.E.2.7.1 Area and Location of Different Trees of *Terminalia arjuna* in Jhargram Division

Plus Tree of *Acacia auriculiformis* at Nunnugaria

Plus Tree of *Acacia manaium* at Nunnugaria

Plus Tree of *Emblica officinalis* at Buribhasa

Plus Tree of *Pongamia piñata* at Nunnugaria

Fig. A.2.E.1 Glimpse of Existing Plus Trees in Jhargram Division

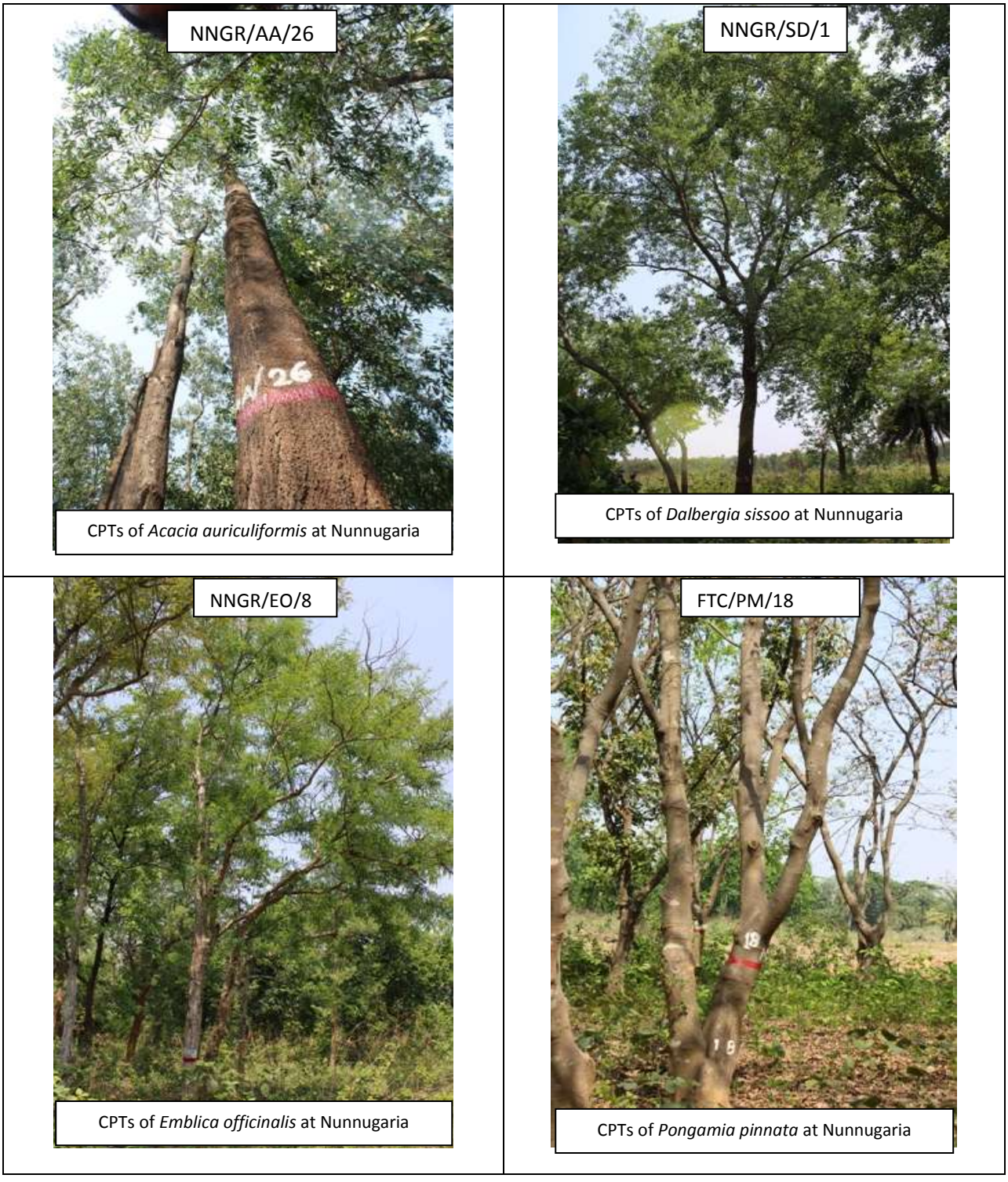


Fig. A.2.E.2 Glimpse of Existing Candidate Plus Trees in Jhargram Division

A.2.F Kangsawati (North) Division

113 candidate plus trees of 13 species were found in the division (Table A.2.F.1) as per the list provided by SFD, West Bengal.

Table A.2.F.1 Abstract of Candidate Plus Trees in KSC North Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Acacia mangium*	10	0	10	0	10	0
2.	*Adina cordifolia*	6	0	6	0	6	0
3.	*Ailanthus excelsa*	3	0	3	0	3	0
4.	*Ailanthus grandis*	3	0	3	0	3	0
5.	*Dalbergia sissoo*	7	0	7	0	7	0
6.	*Gmelina arborea*	5	0	5	0	5	0
7.	*Holoptelea integrifolia*	6	0	6	0	6	0
8.	*Pongamia pinnata*	8	0	8	0	8	0
9.	*Pterocarpus marsupium*	14	0	14	0	14	0
10.	*Schleicheraoleosa*	10	0	10	0	10	0
11.	*Shorearobusta*	19	0	19	0	19	0
12.	*Terminalia alata*	6	0	6	0	6	0
13.	*Terminalia bellirica*	16	0	16	0	16	0
Total		**113**	**0**	**113**	**0**	**113**	**NIL**

A.2.F.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

7 trees of 4 species were rejected on the basis of phenotypic traits (Table A.2.F.1.1).

Table A.2.F.1.1 Abstract of Rejected Candidate Plus Trees in KSC North Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Acacia mangium*	04	DEOR-AM-1	Deorang	Top Broken
			DEOR-AM-2	Deorang	Top Broken
			DEOR-AM-3	Deorang	Damaged
			DEOR-AM-4	Deorang	All Branch were Cut
2.	*Ailanthus grandis*	01	DEOR/AG/1	Deorang	Tree on the bank of river. Roots came out due to soil erosion
3	*Gmelina arborea*	1	KEND-GA-5	Kenda	Upper part damaged
4	*Shorea robusta*	1	DEOR-SR-14	Deorang	Upper part damaged

A.2.F.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.2.F.2.1 *Acacia mangium*

After rejection of 4 trees, 6 healthy trees were there in the division and all will be retained as candidate plus trees.

Table A.2.F.2.1.1 Growth Data of Candidate Plus Trees of *Acacia mangium* in KSC North Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/AM/5	16	3.5	2.05	12	10	10	7	10
DEOR/AM/6	14	4.5	1.2	14	17	10	10	10
DEOR/AM/7	15	3	1.25	8	4	10	7	10
DEOR/AM/8	16	5.5	1.3	6	8	10	10	10

DEOR/AM/9	17	2	1.55	10	6	10	10	10
DEOR/AM/10	16	5.5	1.2	14	10	10	10	10

A.2.F.2.2 *Adina cordifolia*

6 phenotypically good trees were there in the division and all will be retained as candidate plus trees. The growth data of same is presented in Table A.2.F.2.2.1.

Table A.2.F.2.2.1 Growth Data of Candidate Plus Trees of *Adina cordifolia* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/AC/1	14	10	1.1	10	4	10	7	10
DEOR/AC/2	15	3	0.85	10	3	10	10	10
DEOR/AC/3	14	3.5	0.8	7	3	10	7	10
DEOR/AC/4	14	7	0.7	4.5	3	10	10	10
DEOR/AC/5	15	5	0.85	6	4	10	10	10
DEOR/AC/6	16	8.5	0.75	5	6	10	10	10

A.2.F.2.3 *Ailanthus excelsa*

3 healthy candidate plus trees of the species were found in the division and will be retained as candidate plus trees (Table A.2.F.2.3.1).

Table A.2.F.2.3.1 Growth Data of Candidate Plus trees of *Ailanthus excelsa* in Kangsawati North Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KURU/AE/1	13	10	1.4	7	5	8	10	10
KURU/AE/2	14	2.5	2.5	10	11	8	10	10
KURU/AE/3	14	1.5	1.62	14	13	8	10	10

A.2.F.2.4 *Ailanthus grandis*

2 phenotypically good trees were there in the division and all will be retained as candidate plus trees. The growth data of same is presented in Table A.2.F.2.4.1.

Table A.2.F.2.4.1 **Growth Data of Candidate Plus Trees of *Ailanthus grandis* in KSC North Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/AG/2	16	3.5	2.8	20	6	10	7	10
DEOR/AG/3	10	2.5	1	7	8	10	10	10

A.2.F.2.5 *Dalbergia sissoo*

7 phenotypically good trees were there in the division. The growth data of same is presented in Table A.2.F.2.5.1.

Table A.2.F.2.5.1 Growth Data of Candidate Plus trees of *Dalbergia sissoo* in Kangsawati North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PIRR/DS/1	14	2	1.4	8	6	10	7	10
PIRR/DS/2	13	2	1	7	6	10	10	10
PIRR/DS/3	12	1.5	1	6	8	7	10	10
PIRR/DS/4	14	4	1.21	11	10	8	10	10
PIRR/DS/5	14	4	1.07	6	6	8	10	10
PIRR/DS/6	12	6	0.98	4	7	6	10	10
PIRR/DS/7	12	4	0.97	6	10	8	10	10

After giving score and weightage to each trait (Annexure-II, Table II.37, II.38 & II.39) the total weightage score was computed as below:

Table A.2.F.2.5.2 Total Weightage Score of trees of Dalbergia sissoo in Kangsawati North Division

Tree No.	Total Weightage Score

PIRR/DS/1	86
PIRR/DS/2	79.5
PIRR/DS/3	72.25
PIRR/DS/4	89
PIRR/DS/5	85.25
PIRR/DS/6	78.25
PIRR/DS/7	78.25
Average	**81.21**

The trees are located in 2 locations. At Pirra 3 trees are located within 1 hectare (Fig. A.2.F.2.5.1). PIRR/DS/1 will be marked as plus tree and PIRR/DS/2 and PIRR/DS/3 will be retained as candidate plus trees. At Deorang, tree are distributed over a large area (Fig. A.2.F.2.5.2), however PIRR/DS/4 and PIRR/DS/5 has values more than average and will be marked as plus trees and PIRR/DS/6 and PIRR/DS/7will be retained as candidate plus trees.

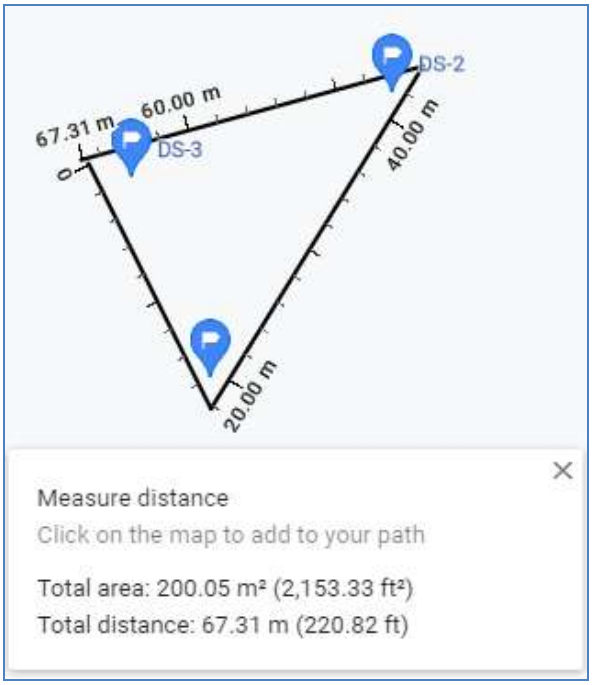


Fig. A.2.F.2.5.1 Area and Location of Different Trees of *Dalbergia sissoo* in Pirra Location of KSC North Division

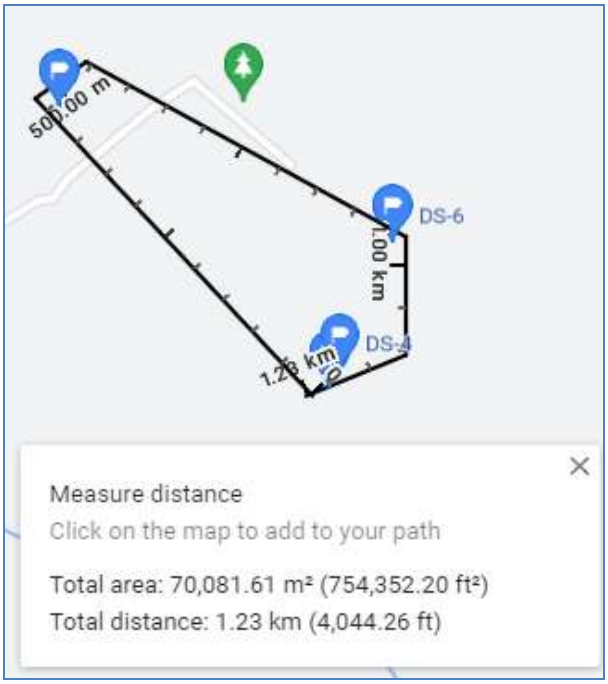


Fig. A.2.F.2.5.2 Area and Location of Different Trees of *Dalbergia sissoo* in Deorang Location of KSC North Division

A.2.F.2.6 *Gmelina arborea*

After rejection of inferior tree, 4 phenotypically good trees (Table A.2.F.2.6.1) were there in the division and all will be retained as candidate plus trees.

Table A.2.F.2.6.1 Growth data of Candidate Plus Trees of *Gmelina arborea* in KSC North Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KEND/GA/1	19	8	1.25	8	8	10	7	10
KEND/GA/2	17	7	1.55	5	6	10	10	10
KEND/GA/3	15	6.5	1.3	4	4	7	10	10
KEND/GA/4	17	11	1.2	8	6	10	10	10

A.2.F.2.7 *Holoptelea integrifolia*

6 healthy trees were observed in the division and will be retained as candidate plus trees. Growth traits are depicted in Table A.2.F.2.7 .1.

Table A.2.F.2.7.1 Growth Data of Candidate Plus trees of *Holoptelea integrifolia* in Kangsawati North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HURA/HI/1	11	3	1.63	12	17	10	10	10
HURA/HI/2	10.5	2.5	1.57	13.5	23	10	10	10
HURA/HI/3	13	3.5	1.59	14	22	10	10	10
HURA/HI/4	12	4.5	1.35	13	21	8	10	10
HURA/HI/5	13	3	1.33	12.5	18	8	10	10
HURA/HI/6	15	5	1.33	10.5	15	10	10	10

A.2.F.2.8 *Pongamia pinnata*

8 trees were found in the division and all were healthy trees. The growth data of same is as follow:

Table A.2.F.2.8.1 Growth Data of Candidate Plus Trees of *Pongamia pinnata* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PIRRA/PP/1	12	2	1.25	12	10	10	7	10
PIRRA/PP/2	13	0.1	1.3	13	9	10	10	10
PIRRA/PP/3	9	2	1.1	10	10	7	10	10
PIRRA/PP/4	12	3	1.1	10	11	10	10	10
PIRRA/PP/5	10	2.5	0.85	7	8	10	10	10
PIRRA/PP/6	11	0.5	1.2	14	15	7	10	10
PIRRA/PP/7	10	2.5	1.05	10	8	10	7	10
PIRRA/PP/8	11	1	1.45	12	12	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial

use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, II.40, II.41 & II.42) and finally the total weightage score was computed as below:

Table A.2.F.2.8.2 Total Weightage Score of Candidate Plus Trees of *Pongamia pinnata* in KSC North Division

Tree No.	Total Weightage Score
PIRRA/PP/1	89
PIRRA/PP/2	91.25
PIRRA/PP/3	82.25
PIRRA/PP/4	93.5
PIRRA/PP/5	85.5
PIRRA/PP/6	80.5
PIRRA/PP/7	83.5
PIRRA/PP/8	90.25
Mean	**86.98**

All the trees are within 1 hectare area (Fig. A.2.F.2.8.1), hence 1 tree will be marked as plus tree (PIRRA/PP/4) and remaining trees except PIRRA/PP/6 will be retained as candidate plus trees.

Fig. A.2.H.2.6.1 Area and Location of Different Trees of *Pongamia pinnata* in KSC North Division

A.2.F.2.9 *Pterocarpus marsupium*

14 healthy trees of the species were found in the division, growth data of which is presented in table A.2.F.2.9.1.

Table A.2.F.2.9.1 Growth Data of Candidate Plus Trees of *Pterocarpus marsupium* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/PM/1	13	6	0.7	4	5	10	7	10
DEOR/PM/2	12	8	1.85	5	4	10	10	10
DEOR/PM/3	17	4.5	0.9	6	4	7	10	10
DEOR/PM/4	13	4.5	0.7	5	2	10	10	10
DEOR/PM/5	15	8.5	0.8	6	4	10	10	10
DEOR/PM/6	14	3.5	0.9	8	6	7	10	10
DEOR/PM/7	15	5.5	0.8	4	4	10	7	10
DEOR/PM/8	16	4.5	1	8	4	10	10	10
DEOR/PM/9	15	4.5	0.8	8	4	10	10	10
SURU/PM/1	15	2.5	1.35	8	6	10	10	10
SURU/PM/2	19	14	1.25	4	6	7	10	10
SURU/PM/3	15	6.5	0.95	4	4	10	7	10
SURU/PM/4	16	7	0.98	5	5	10	10	10
SURU/PM/5	17	6	1.1	6	4	10	10	10

After giving score and weightage to each trait (Annexure-II, Table II.43, II.44 & II.45) the total weightage score was computed as below:

Table A.2.F.2.9.2 Total Weightage Score of Candidate Plus Trees of *Pterocarpus marsupium* in KSC North Division

Tree No.	Total Weightage Score
DEOR/PM/1	74.25
DEOR/PM/2	88.75
DEOR/PM/3	77
DEOR/PM/4	76.25
DEOR/PM/5	84
DEOR/PM/6	75
DEOR/PM/7	77
DEOR/PM/8	82.5

DEOR/PM/9	80.5
SURU/PM/1	85
SURU/PM/2	90.5
SURU/PM/3	79
SURU/PM/4	84
SURU/PM/5	85.5
Mean	**81.38**

All the trees in Deorang location are within 1 hectare area (Fig. A.2.F.2.9.1), hence 1 tree will be marked as plus tree (DEOR/PM/2), and remaining trees except DEOR/PM/1 and DEOR/PM/6 will be retained as candidate plus trees.

In Surulia location, also all trees are within 1 hectare area (Fig. A.2.F.2.9.2), hence SURU/PM/2 will be marked as plus trees and remaining trees will be retained as candidate plus trees.

Fig. A.2.F.2.9.1 Area and Location of Different Candidate Plus Trees of *Pterocarpus marsupium* in Deorang Location of KSC North Division

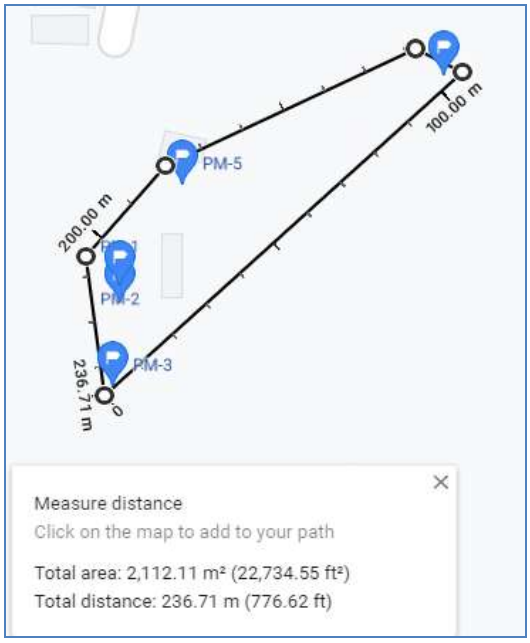


Fig. A.2.F.2.9.2 Area and Location of Different Trees of *Pterocarpus marsupium* in Surulia Location of KSC North Division

A.2.F.2.10 *Schleichera oleosa*

10 phenotypically good (Table A.2.F.2.10.1) trees were observed in the division.

Table A.2.F.2.10.1 Growth data of Candidate Plus Trees of *Schleichera oleosa* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PIRRA/SO/1	16	3.5	1.8	7	6	10	7	10
PIRRA/SO/2	15	6.5	1	6	5	10	10	10
PIRRA/SO/3	14	2.5	1	9	10	7	10	10
PIRRA/SO/4	14	4	0.8	6	5	10	10	10
PIRRA/SO/5	13	5	0.75	4	3	10	10	10
PIRRA/SO/6	16	3.5	0.95	6	5	7	10	10
PIRRA/SO/7	14	3.5	0.8	6	9	10	7	10
PIRRA/SO/8	18	3.5	0.9	8	7	10	10	10
PIRRA/SO/9	17	3.5	0.95	7	6	10	10	10
PIRRA/SO/10	17	4.5	1.05	6	8	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.46, II.47 & II.48) and finally the total weightage score was computed as below:

Table A.2.F.2.10.2 Total Weightage Score of Seed Trees of *Schleichera oleosa* in KSC North Division

Tree No.	Total Weightage Score
PIRRA/SO/1	85.5
PIRRA/SO/2	89.75
PIRRA/SO/3	77
PIRRA/SO/4	80.25
PIRRA/SO/5	82
PIRRA/SO/6	79.25
PIRRA/SO/7	77.75
PIRRA/SO/8	85.25
PIRRA/SO/9	85.5
PIRRA/SO/10	91.75
Mean	**83.4**

All the trees are located within 1 hectare area, hence PIRRA/SO/10 will be marked as plus trees and remaining will be retained as candidate plus trees except PIRRA/SO/3, PIRRA/SO/6 and PIRRA/SO/7, which will be rejected from the list.

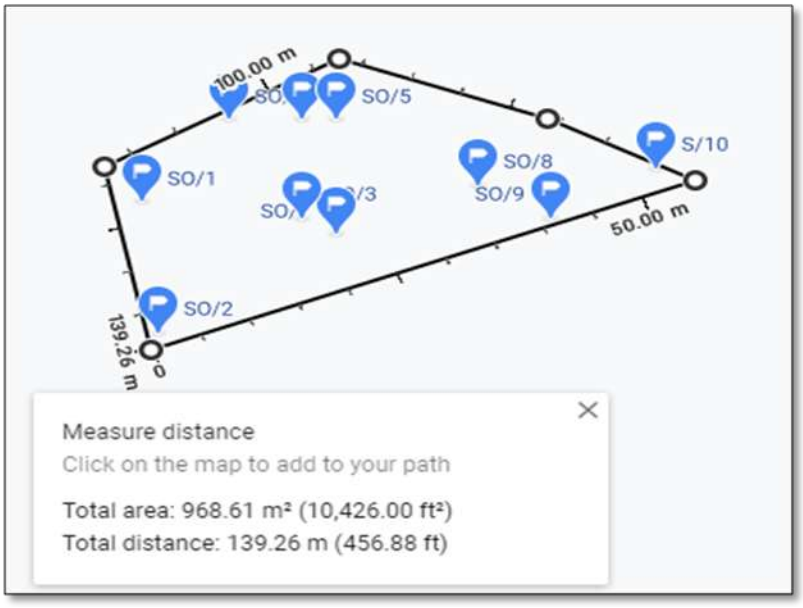


Fig. A.2.F.2.10.1 Area and Location of Different Trees of *Schleichera oleosa* in KSC North Division

A.2.F.2.11 *Shorea robusta*

After rejection of 1 tree, 18 healthy trees were observed in the division. Growth data of trees is presented in the table A.2.F.2.11.1.

Table A.2.F.2.11.1 Growth Data of Candidate Plus Trees of *Shorea robusta* in KSC North Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/SR/1	13	11	0.85	4	3	10	7	10
DEOR/SR/2	18	14	0.7	5	3	10	10	10
DEOR/SR/3	16	14	0.65	4	4	7	10	10
DEOR/SR/4	17	13	0.6	4	2	10	10	10
DEOR/SR/5	18	15	0.85	6	4	10	10	10
DEOR/SR/6	19	15	1	6	4	7	10	10
DEOR/SR/7	20	16	0.85	5	3	10	7	10
DEOR/SR/8	17	7	0.85	6	4	10	10	10
DEOR/SR/9	17	11	0.7	4	4	10	10	10
DEOR/SR/10	16	13	1.8	7	3	10	10	10
DEOR/SR/11	18	14	0.85	6	4	10	7	10
DEOR/SR/12	17	14	0.85	6	4	10	10	10
DEOR/SR/13	16	12	0.7	4	2	7	10	10
DEOR/SR/15	15	12	0.8	5	4	10	10	10
DEOR/SR/16	19	16	0.85	6	4	7	10	10
DEOR/SR/17	20	16	0.75	4	3	10	7	10
DEOR/SR/18	21	18	0.8	3	5	10	10	10
DEOR/SR/19	20	16	0.85	8	4	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.49, II.50 & II.51) and finally the total weightage score was computed as ahead:

Table A.2.F.2.11.2 Total Weightage Score of Candidate Plus Trees of *Shorea robusta* in KSC North Division

Tree No.	Total Weightage Score
DEOR/SR/1	76.25
DEOR/SR/2	87.5
DEOR/SR/3	80
DEOR/SR/4	83.5
DEOR/SR/5	89.75
DEOR/SR/6	85.25
DEOR/SR/7	88.5
DEOR/SR/8	82.25
DEOR/SR/9	82
DEOR/SR/10	90.75
DEOR/SR/11	91.25
DEOR/SR/12	94.25
DEOR/SR/13	77.25
DEOR/SR/15	82.75
DEOR/SR/16	87.25
DEOR/SR/17	86.5
DEOR/SR/18	91
DEOR/SR/19	93.75
Mean	**86.10**

All the trees are within I hectare area (Fig. A.2.F.2.11.1). Hence 1 tree will be marked as plus tree (DEOR/SR/12) and DEOR/SR/19, DEOR/SR/11, DEOR/SR/18, DEOR/SR/16, DEOR/SR/5 and DEOR/SR/7 will be retained as candidate plus trees. Rest will be discarded from the list.

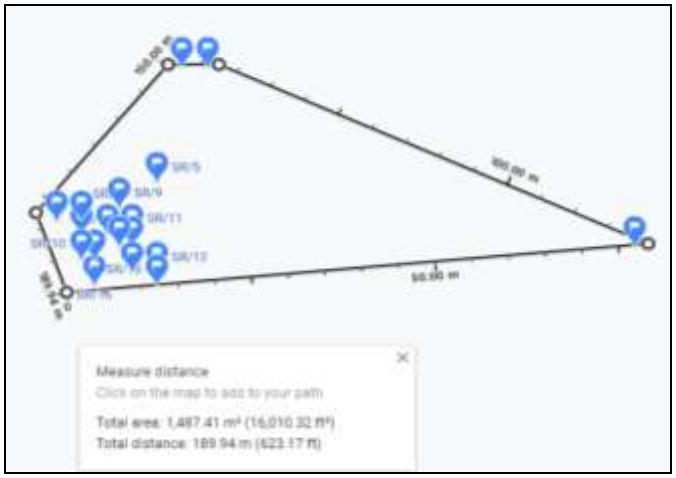


Fig. A.2.F.2.11.1 Area and Location of Different Trees of *Shorea robusta* in KSC North Division

A.2.F.2.12 *Terminalia alata*

6 phenotypically good trees were found in the division (Table A.2.F.2.12.1) and all will be retained as candidate plus trees.

Table A.2.F.2.12.1 Growth data of Seed Trees of *Terminalia alata* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/TA/1	17	6	1.05	8	9	10	7	10
DEOR/TA/2	15	4	0.9	10	12	10	10	10
DEOR/TA/3	17	4.5	0.95	7	8	7	10	10
DEOR/TA/4	18	11	0.85	5	8	10	10	10
DEOR/TA/5	14	4	0.7	6	8	10	10	10
DEOR/TA/6	15	6	0.74	2.5	7	10	10	10

A.2.F.2.13 *Terminalia bellirica*

16 healthy trees of *Terminalia bellirica* were found in the division, growth data of which is presented in table A.2.F.2.13.1

Table A.2.F.2.13.1 Growth data of Candidate Plus Trees of *Terminalia bellirica* in KSC North Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DEOR/TB/1	10	3.5	0.7	5	5	10	7	10
DEOR/TB/2	17	7	0.9	5.5	6	10	10	10
DEOR/TB/3	16	6	0.9	9	15	7	10	10
DEOR/TB/4	9	3.5	0.5	4	3	10	10	10
DEOR/TB/5	16	6	0.75	4	6	10	10	10
DEOR/TB/6	18	8	0.85	6	8	10	7	10
DEOR/TB/7	14	7.5	0.75	7	7	10	10	10
DEOR/TB/8	10	7	0.7	5	4	7	10	10
DEOR/TB/9	14	8	0.75	5	5	10	10	10
DEOR/TB/10	14	10	0.8	7	8	7	10	10
DEOR/TB/11	15	4	0.8	8	10	10	10	10
DEOR/TB/12	15	4.5	0.9	10	8	7	10	10
DEOR/TB/13	11	6	0.55	4	6	7	10	10

DEOR/TB/14	15	10	0.75	6	6	10	10	10
DEOR/TB/15	14	8.5	0.75	8	8	10	7	10
DEOR/TB/16	15	5.5	0.85	7	8	10	10	10

After giving scores and weightage to each trait (Annexure-II, Table II.52, II.53 & II.54), the total weightage score was computed as below:

Table A.2.F.2.13.2 Total Weightage Score of Candidate Plus Trees of *Terminalia bellirica* in KSC North Division

Tree No.	Total Weightage Score
DEOR/TB/13	75.25
DEOR/TB/1	75.75
DEOR/TB/4	76
DEOR/TB/8	79.5
DEOR/TB/12	85.5
DEOR/TB/11	87.75
DEOR/TB/15	87.75
DEOR/TB/3	88
DEOR/TB/5	88.75
DEOR/TB/10	89.5
DEOR/TB/9	91.25
DEOR/TB/16	91.5
DEOR/TB/7	91.75
DEOR/TB/6	92.25
DEOR/TB/2	94.5
DEOR/TB/14	95
Mean	**86.88**

All trees are within 1 hectare area (Fig. A.2.F.2.13.1), hence 1 tree will be marked as plus tree (DEOR/TB/14) and DEOR/TB/2, DEOR/TB/6, DEOR/TB/7, DEOR/TB/16, DEOR/TB/9 and DEOR/TB/10 will be retained as candidate plus trees. Remaining trees will be discarded from the list.

Fig. A.2.F.2.13.1 Area and Location of Different Trees of *Terminalia bellirica* in KSC North Division

Plus Tree of *Acacia Manaium* at Deorang

Plus Tree of *Pterocarpus marsupium* at Deorang

Plus Tree of *Gmelina arborea* at Kenda

Plus Tree of *Shorea robusta at* Deorang

Fig. A.2.F.1 Glimpse of Existing Candidate Plus Trees of KSC (North) Division

A.2.G Kangsawati (South) Division

In the division 10 plus trees of 1 species and 99 candidate plus trees 5 species were observed (Table A.2.G.1).

Table A.2.G.1 Abstract of Plus Trees in KSC South Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Tectona grandis*	10	0	10	0	10	0
Total		**10**	**0**	**10**	**0**	**10**	**NIL**

Table A.2.G.1 Abstract of Candidate Plus Trees in KSC South Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Buchanania cochinchinensis*	54	0	54	0	0	0
2	*Madhuca latifolia*	13	0	13	0	0	0
3.	*Terminalia bellirica*	22	0	22	0	0	0
4.	*Terminalia chebula*	10	0	10	0	0	0
Total		**99**	**0**	**99**	**0**	**0**	**NIL**

A.2.G.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

All the trees were phenotypically good having desirable traits; hence no direct rejection was made in the division.

A.2.G.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.2.G.2.1 *Buchanania cochinchinensis*

54 healthy trees were found in the division. Growth data of same is as follow:

Table A.2.I.2.G.1 Growth Data of Candidate Plus Trees of *Buchanania cochinchinensis* in KSC South Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PURI/BL/1	9	3.5	0.92	5	7	8	10	10
PURI/BL/2	7	3	1.05	5	8	8	10	10
PURI/BL/3	8	3	1.34	6	1	8	10	10
PURI/BL/4	10	6	1.15	7	8	8	10	10
PURI/BL/5	8	3.5	0.8	6	8	8	10	10
PURI/BL/6	12	5	0.83	6	6	8	10	10
PURI/BL/7	10	4	0.86	5.5	8	8	10	10
PURI/BL/8	6	3	0.68	4	5	8	10	10
PURI/BL/9	8	3	0.81	4.5	6	8	10	10
PURI/BL/10	7	2	0.83	5	5	8	10	10
PURI/BL/11	8	3.5	1.15	7.5	11	8	10	10
PURI/BL/12	5	2	0.71	4	5	8	10	10
PURI/BL/13	9	3.5	0.78	6.5	6	8	10	10
PURI/BL/14	9	3.5	0.91	7	7	8	10	10
PURI/BL/15	9	4	0.96	5	6	8	10	10
PURI/BL/16	8	3	0.9	4.5	4	8	10	10
PURI/BL/17	10	5	0.96	8	11	8	10	10
PURI/BL/18	7	2.5	0.98	3.5	5	8	10	10
PURI/BL/19	8	5	0.76	3	5	8	10	10

PURI/BL/20	6.5	3	0.79	5	5	8	10	10
PURI/BL/21	8	3.5	0.88	5	9	8	10	10
PURI/BL/22	9	4.5	0.86	5.5	10	8	10	10
PURI/BL/23	9	5.5	0.96	6.5	5	8	10	10
PURI/BL/24	8	4.5	0.84	4	8	8	10	10
PURI/BL/25	6	3	0.92	4.5	6	8	10	10
PURI/BL/26	6	3.5	0.98	4	6	8	10	10
PURI/BL/27	7	4	0.94	5.5	5	8	10	10
PURI/BL/1	5	4	0.91	3	3	8	10	10
PURI/BL/2	7.5	3	0.89	4.5	7	8	10	10
PURI/BL/3	9	5	1.21	5	4	8	10	10
PURI/BL/4	8	4.5	1.21	6.5	10	8	10	10
PURI/BL/5	8	4.5	1.25	5	8	8	10	10
PURI/BL/6	8.5	4	1.16	6.5	13	8	10	10
PURI/BL/7	9	5	1.2	6	7	8	10	10
PURI/BL/8	8	3	0.97	6.5	8	8	10	10
PURI/BL/9	6.5	3	1.12	6.5	8	8	10	10
PURI/BL/10	9	5	1.02	5	6	8	10	10
PURI/BL/11	8	3.5	0.85	4	4	8	10	10
PURI/BL/12	6	2.5	0.87	4	5	8	10	10
PURI/BL/13	11	4	1.12	5	6	8	10	10
PURI/BL/14	8	4.5	1.07	6.5	12	8	10	10
PURI/BL/15	8	3	0.98	7	10	8	10	10
PURI/BL/16	10	6	1.09	5	6	8	10	10
PURI/BL/17	10	5	1.36	4	5	8	10	10
PURI/BL/18	8	3.5	1.18	4	8	8	10	10
PURI/BL/19	8	2.5	1.33	5	6	8	10	10
PURI/BL/20	7	4.5	0.62	3	7	8	10	10
PURI/BL/21	7.5	4.5	0.74	4	8	8	10	10
PURI/BL/22	12	6	1.38	8	12	8	10	10
PURI/BL/23	7	3	0.91	3	5	8	10	10
PURI/BL/24	7.5	3	0.93	4.5	7	8	10	10
PURI/BL/25	8	2.5	0.89	6.5	6	8	10	10
PURI/BL/26	7.5	2.5	1.28	5	5	8	10	10
PURI/BL/27	8	2.5	1.12	6.5	7	8	10	10

*bold trees are candidate plus trees and rest are seed trees

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure II, Table II.55, II.56 & II.57) and finally the total weightage score was computed as below:

Table A.2.G.2.1.2 Total Weightage Score of Candidate Plus Trees of *Buchanania cochinchinensis* in KSC South Division

Tree No.	Total Weightage Score
PURI/BL/1	81.5
PURI/BL/2	81.5
PURI/BL/3	78.5
PURI/BL/4	88.5
PURI/BL/5	81.5
PURI/BL/6	84.5
PURI/BL/7	83
PURI/BL/8	73
PURI/BL/9	79
PURI/BL/10	77
PURI/BL/11	91.5
PURI/BL/12	72.5
PURI/BL/13	84
PURI/BL/14	84
PURI/BL/15	83
PURI/BL/16	76
PURI/BL/17	92.5
PURI/BL/18	73
PURI/BL/19	73.5
PURI/BL/20	77.5
PURI/BL/21	84.5
PURI/BL/22	85
PURI/BL/23	83.5
PURI/BL/24	79.5
PURI/BL/25	77
PURI/BL/26	78
PURI/BL/27	79
PURI/BL/1	72
PURI/BL/2	78
PURI/BL/3	81.5
PURI/BL/4	89.5
PURI/BL/5	85
PURI/BL/6	92.5
PURI/BL/7	84.5
PURI/BL/8	85
PURI/BL/9	85
PURI/BL/10	83.5
PURI/BL/11	76
PURI/BL/12	73.5
PURI/BL/13	86
PURI/BL/14	91.5

PURI/BL/15	88
PURI/BL/16	86
PURI/BL/17	81
PURI/BL/18	81
PURI/BL/19	84
PURI/BL/20	75
PURI/BL/21	77.5
PURI/BL/22	99
PURI/BL/23	72.5
PURI/BL/24	79
PURI/BL/25	83.5
PURI/BL/26	80
PURI/BL/27	85.5
Average	**81.81**

All the trees are within 6 hectare area (Fig. A.2.G.2.1.1), hence 6 trees can be marked as plus trees and 36 as candidate plus trees. Remaining 12 trees having minimum weightage score will be deleted from the list.

Table A.2.G.2.1.3 Selected Plus Trees of *Buchanania cochinchinensis* in KSC South Division

Tree No.	Total Weightage Score
PURI/BL/22	99
PURI/BL/17	92.5
PURI/BL/6	92.5
PURI/BL/11	91.5
PURI/BL/14	91.5
PURI/BL/4	89.5

Table A.2.G.2.1.4 Selected Candidate Plus Trees of *Buchanania cochinchinensis* in KSC South Division

Tree No.	Total Weightage Score
PURI/BL/4	88.5
PURI/BL/15	88
PURI/BL/13	86
PURI/BL/16	86
PURI/BL/27	85.5
PURI/BL/22	85
PURI/BL/5	85
PURI/BL/8	85
PURI/BL/9	85
PURI/BL/6	84.5
PURI/BL/21	84.5
PURI/BL/7	84.5
PURI/BL/13	84
PURI/BL/14	84
PURI/BL/19	84
PURI/BL/23	83.5
PURI/BL/10	83.5
PURI/BL/25	83.5
PURI/BL/7	83
PURI/BL/15	83
PURI/BL/1	81.5
PURI/BL/2	81.5
PURI/BL/5	81.5
PURI/BL/3	81.5
PURI/BL/17	81
PURI/BL/18	81
PURI/BL/26	80
PURI/BL/24	79.5
PURI/BL/9	79
PURI/BL/27	79
PURI/BL/24	79
PURI/BL/3	78.5
PURI/BL/26	78

PURI/BL/2	78
PURI/BL/20	77.5
PURI/BL/21	77.5

Fig. A.2.G.2.1.1 Area and Location of Different Trees of *Buchanania cochinchinensis* in KSC South Division

A.2.G.2.2 *Madhuca latifolia*

13 healthy trees of the species were observed in the division having desirable phenotypical traits (Table A.2.G.2.2.1).

Table A.2.G.2.2.1 Growth data of Candidate Plus Trees of *Madhuca latifolia* in KSC South Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PIRR/ML/1	14	4.5	0.9	5	6	10	7	10
PIRR/ML/2	16	4.5	1.25	6	4	7	10	10
PIRR/ML/3	15	4.5	1.15	8	7	10	10	10
PIRR/ML/4	14	3.5	1.1	7	10	10	10	10
PIRR/ML/5	16	2.5	1.1	7	12	10	10	10
PIRR/ML/6	15	3.5	1.1	6	10	7	10	10
PIRR/ML/7	17	2	1.8	14	13	10	10	10
PIRR/ML/8	14	4	1.1	8	10	10	7	10
RUPA/ML/1	10	2.5	2	12	12	7	10	10
RUPA/ML/2	9	2	1.4	12	6	10	7	10
RUPA/ML/3	9	2	1.5	13	7	10	10	10
RUPA/ML/4	11	3	1.6	14	10	7	7	10
RUPA/ML/5	12	3.5	1.6	16	13	10	7	10

After carrying out scoring and weightage (Annexure-II, Table II.58, II.59 & II.60), the total weightage of trees are as follow:

Table A.2.G.2.2.2 Total Weightage Score of Seed Trees of *Madhuca latifolia* in KSC South Division

Tree No.	Total Weightage Score
PIRR/ML/1	84.25
PIRR/ML/2	87.5
PIRR/ML/3	91
PIRR/ML/4	85.25
PIRR/ML/5	85
PIRR/ML/6	80.75
PIRR/ML/7	92
PIRR/ML/8	83
RUPA/ML/1	83.25
RUPA/ML/2	76.5
RUPA/ML/3	81
RUPA/ML/4	80
RUPA/ML/5	84.75
Mean	**84.17**

At Pirrah, all trees are within 1 hectare area (Fig. A.2.G.2.2.1), hence only 1 tree will be marked as plus tree (PIRR/ML/7) and remaining will be retained as candidate plus trees except PIRR/ML/8. At Rupapatia, all the trees are distributed within 1 hectare area (Fig. A.2.G.2.2.2), 1 tree will be marked as plus tree (RUPA/ML/5) and remaining will be retained as candidate plus trees.

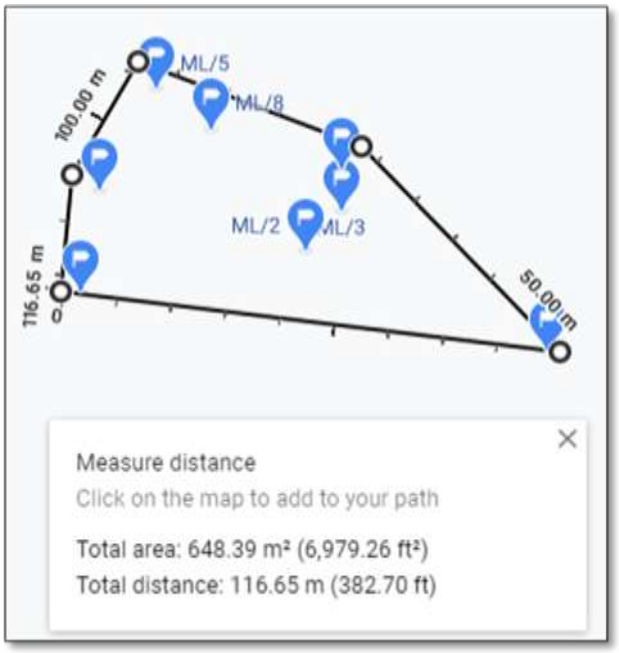


Fig. A.2.G.2.2.1 Area and Location of Different Trees of *Madhuca latifolia* at Pirrah in KSC South Division

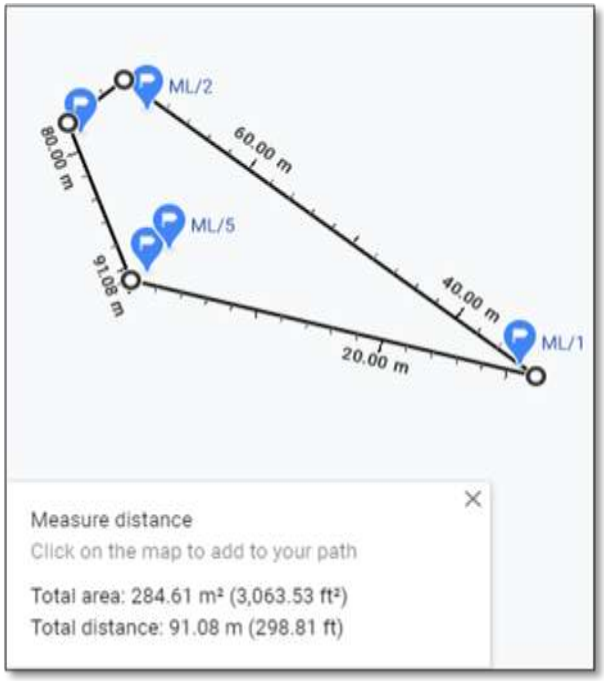


Fig. A.2.G.2.2.1 Area and Location of Different Trees of *Madhuca latifolia* at Rupapatia in KSC South Division

A.2.G.2.3 *Tectona grandis*

In the division, 10 plus trees of the species were located. The growth data of same is as follow:

Table A.2.G.2.3.1 Growth data of Plus Trees of *Tectona grandis* in KSC South Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NILM/TG/1	21	16	2	10	11	10	10	10
NILM/TG/2	22	16	1.6	10	7	7	10	10
NILM/TG/3	23	10.5	1.6	12	6	10	10	10
NILM/TG/4	25	11.5	1.7	12	5	10	10	10
NILM/TG/5	20	14	1.4	10	8	10	10	10
NILM/TG/6	25	20	1.4	5	6	10	7	10
NILM/TG/7	24	6.5	1.4	6.5	8	10	10	10
NILM/TG/8	20	10	1.82	8.5	7	10	7	10
NILM/TG/9	24	19	1.4	12	10	10	10	10
NILM/TG/10	24	14.5	1.84	12	13	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.61, II.62 & II.63) and finally the total weightage score was computed as below:

Table A.2.G.2.3.2 Total Weightage Score of Plus Trees of *Tectona grandis* in KSC South Division

Tree No.	Total Weightage Score
NILM/TG/1	93
NILM/TG/2	85.5
NILM/TG/3	86.25
NILM/TG/4	91
NILM/TG/5	84.25
NILM/TG/6	85.75
NILM/TG/7	81.25
NILM/TG/8	82.25
NILM/TG/9	90.25
NILM/TG/10	90
Mean	**86.95**

All trees are distributed within 1 hectare area (Fig. A.2.G.2.3.1), hence 1 tree will be retained as plus tree (NILM/TG/1) and remaining will be marked as candidate plus trees except NILM/TG/6, NILM/TG/7 and NILM/TG/8.

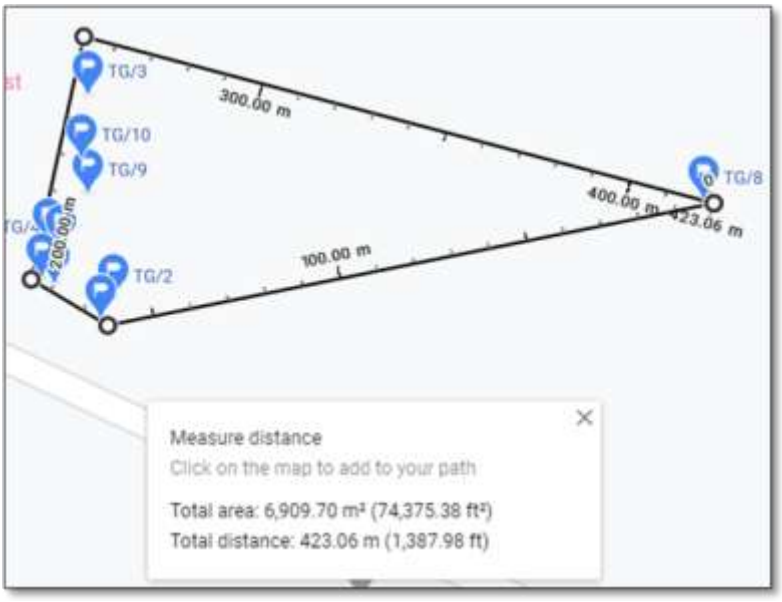


Fig. A.2.G.2.3.1 Area and Location of Different Trees of *Tectona grandis* in KSC South Division

A.2.G.2.4 *Terminalia bellirica*

In the division, 22 candidate plus trees of the species were located. The growth data of same is as follow:

Table A.2.G.2.4.1 Growth Data of Candidate Plus Trees of *Terminalia bellirica* in KSC South Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PURI/TB/1	18	3	1.42	10	7	10	10	10
PURI/TB/2	16	5.5	1.2	8	6	8	10	10
PURI/TB/3	15	5	1.3	10	14	10	10	10
PURI/TB/4	17	7.5	1.75	12	8	10	10	10
PURI/TB/5	12	4	1	10	7	10	10	10
PURI/TB/6	15	7	1.5	8	6	8	8	10
PURI/TB/7	14	3.5	1.45	8	6	10	10	10
PURI/TB/8	21	10.5	2.19	9	10	10	8	10
PURI/TB/9	14	3	1.2	6	8	8	10	10
PURI/TB/10	13	2	0.9	5	6	10	8	10
PURI/TB/11	11	5	1.22	8	9	10	10	10
PURI/TB/12	10	6	0.82	6	3	8	10	10
PURI/TB/13	13	3	1.31	12	13	8	10	10
PURI/TB/14	12	3.5	1.09	10	8	10	10	10
PURI/TB/15	14	3	1.61	9	12	8	10	10
PURI/TB/16	12	5	0.96	6	8	10	10	10
PURI/TB/17	10	3	0.89	5	7	10	10	10
PURI/TB/18	13	5	1.06	6	6	8	10	10
PURI/TB/19	13	4	0.96	9	11	8	10	10
PURI/TB/20	14	5	1	8	9	8	10	10
PURI/TB/21	11	4	0.72	12	6	8	10	10
PURI/TB/22	12	6	0.82	7	5	10	10	10

After scoring all traits on one scale and giving weightage (Annexure-II, Table II.64, II.65 & II.66), total weightage is as follow:

Table A.2.G.2.4.2 Total Weightage Score of Candidate Plus Trees of *Terminalia bellirica* in KSC South Division

Tree No.	Total Weightage Score
PURI/TB/1	85.75
PURI/TB/2	80.75
PURI/TB/3	84.75
PURI/TB/4	94
PURI/TB/5	80.75
PURI/TB/6	77.75
PURI/TB/7	82.25
PURI/TB/8	96.25
PURI/TB/9	77
PURI/TB/10	74.75
PURI/TB/11	81
PURI/TB/12	77
PURI/TB/13	80.5
PURI/TB/14	78.75
PURI/TB/15	81.75
PURI/TB/16	80
PURI/TB/17	76.5
PURI/TB/18	76.75
PURI/TB/19	77.75
PURI/TB/20	77.5
PURI/TB/21	76.25
PURI/TB/22	81.75
Average	**80.89**

Trees are located in two clusters and within a cluster distributed within 1 hectare area. Hence 2 trees will be marked as plus trees (PURI/TB/8 and PURI/TB/15). PURI/TB/4, PURI/TB/1, PURI/TB/3, PURI/TB/7, PURI/TB/2, PURI/TB/5, PURI/TB/19, PURI/TB/22, PURI/TB/11, PURI/TB/13, PURI/TB/16 and PURI/TB/14 will be retained as candidate plus trees. Remaining trees will be deleted from the list.

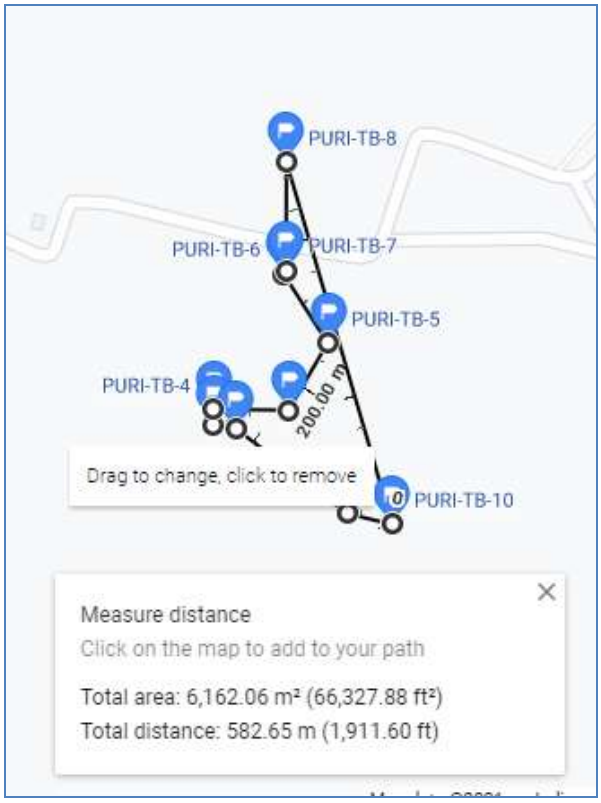


Fig. A.2.G.2.4.1 Area and Location of Different Trees of *Terminalia bellirica* in KSC South Division

Fig. A.2.G.2.3.2 Area and Location of Different Trees of *Terminalia bellirica* in KSC South Division

A.2.G.2.5. *Terminalia chebula*

10 phenotypically superior trees (Table A.2.I.2.5.1) were observed in the field. All trees will be retained as candidate plus trees.

Table A.2.G.2.5.1 Growth Data of Candidate Plus Trees of *Terminalia chebula* in KSC South Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PURI/TC/1	16	2.5	1.15	7	7	10	10	10
PURI/TC/2	14	9	1	6	6	8	10	10
PURI/TC/3	12	4	0.9	12	12	8	10	10
PURI/TC/4	15	4.5	1.35	15	15	10	10	10
PURI/TC/5	13	3	1.15	12	12	10	10	10
PURI/TC/6	12	4	1.3	10	9	10	10	10
PURI/TC/7	9	3	1.02	8	8	8	10	10
PURI/TC/8	9	2.5	1.02	9	8	10	10	10
PURI/TC/9	8	2.5	0.88	8	8	8	10	10
PURI/TC/10	7.5	3	0.95	7	8	8	10	10

After scoring all traits on one scale and giving weightage (Annexure-II, Table II.67, II.68 & II.69), total weightage is as follow:

Table A.2.G.2.5.2 Total Weightage Score of Candidate Plus Trees of *Terminalia chebula* in KSC South Division

Tree No.	Total Weightage Score
PURI/TC/1	86
PURI/TC/2	87.5
PURI/TC/3	79.5
PURI/TC/4	94
PURI/TC/5	86
PURI/TC/6	89.75
PURI/TC/7	77
PURI/TC/8	80
PURI/TC/9	73.5
PURI/TC/10	73.25
Average	**82.65**

Tree are distributed over two locations and in both locations, located within 1 hectare area, hence PURI/TC/4 and PURI/TC/6 will be marked as plus trees and remaining will be retained as candidate plus trees.

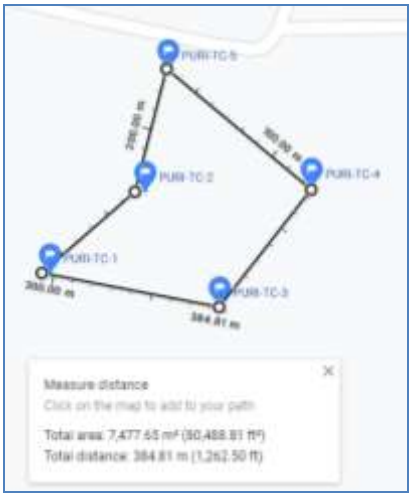


Fig. A.2.G.2.5.1 Area and Location of Different Trees of *Terminalia chebula* in KSC South Division

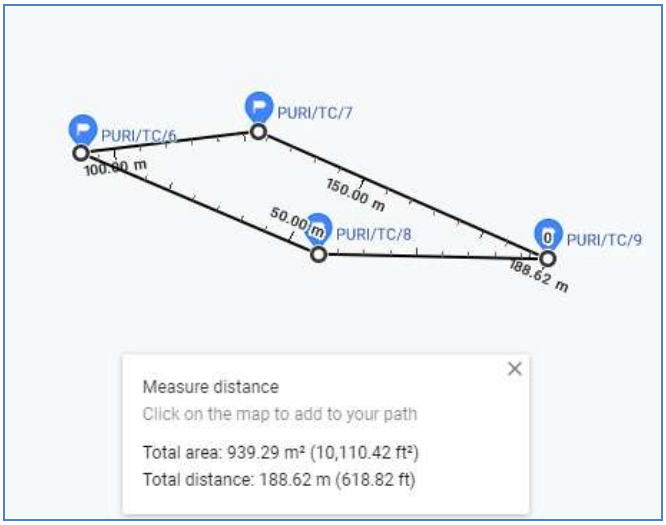


Fig. A.2.G.2.5.2 Area and Location of Different Trees of *Terminalia chebula* in KSC South Division

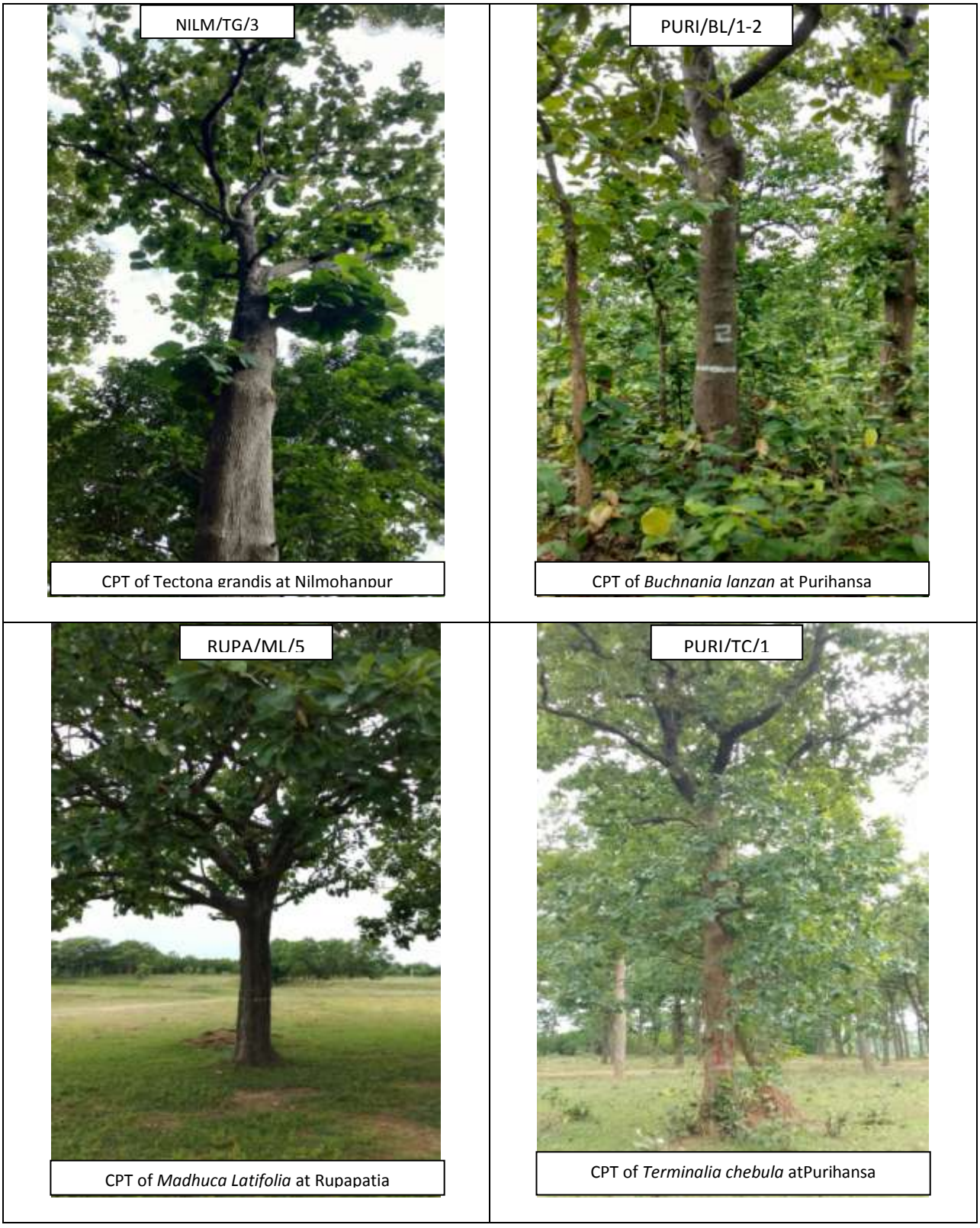


Fig. A.2.G.1 Glimpse of Existing Candidate Plus Trees of Kangsawati (S) Division

A.2.H Medinipur Division

11 plus trees of 5 species (Table A.2.H.1) and 69 candidate plus trees of 10 species ((Table A.2.H.2) were observed in the division.

Table A.2.H.1. Abstract of Plus Trees in Medinipur Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Lagerstroemia parviflora*	4	0	4	0	4	0
2	*Pterocarpus marsupium*	1	0	1	0	1	0
3.	*Eucalyptus tereticornis*	1	0	1	0	1	0
4.	*Terminalia bellirica*	1	0	1	0	1	0
5	*Madhuca latifolia*	4	0	4	0	4	0
Total		**11**	**0**	**11**	**0**	**11**	**NIL**

Table A.2.H.1. Abstract of Candidate Plus Trees in Medinipur Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	21	0	21	0	21	0
2	*Alstonia scholaris*	7	0	7	0	7	0
3.	*Azadirachta indica*	5	0	5	0	5	0
4.	*Cassia siamea*	2	0	2	0	2	0
5	*Gmelina arborea*	2	0	2	0	2	0
6	*Lagerstroemia parviflora*	8	0	8	0	8	0
7	*Pterocarpus marsupium*	6	0	6	0	6	0
8	*Terminalia arjuna*	13	0	13	0	13	0
9	*Terminalia bellirica*	4	0	4	0	4	0

10	*Terminalia chebula*	1	0	1	0	1	0
	Total	**69**	**0**	**69**	**0**	**69**	**NIL**

A.2.H.1 Direct Rejection of Trees in the Field on the Basis of Phenotypic Traits

Out of 65 candidate plus trees, 6 trees (Table A.2.H.1.1 & Table A.2.H.1.1) were discarded from the list on the basis phenotypical characters observed in the field which is not a desirable character.

Table A.2.H.1.1 Abstract of Rejected Plus Trees in Medinipur Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
	Lagerstroemia parviflora	01	ARB/LP/4	Arabari	Damaged

Table A.2.H.1.2 Abstract of Rejected Candidate Plus Trees in Medinipur Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Acacia auriculiformis*	04	ARAB/AA/4	Arabari	Cyclone Damaged
			ARAB/AA/9	Arabari	Cyclone Damaged
			ARAB/AA/10	Arabari	Cyclone Damaged
			ARAB/AA/11	Arabari	Cyclone Damaged
	Lagerstroemia parviflora	01	ARAB/LP/6	Arabari	Dead

A.2.H.2 Analysis of Data

Data was analyzed to get desired number of candidate plus trees (depending upon the area) and feasibility of selection of new plus tree among the candidate plus trees.

A.2.H.2.1 *Acacia auriculiformis*

17candidate plus trees were phenotypically good after rejection of 4 trees which were damaged by cyclone. The growth of trees is presented in table A.2.H.2.1.1.

Table A.2.H.2.1.1 Growth data of Candidate Plus Trees of *Acacia auriculiformis* in Medinipur Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/AA/1	18	3.5	1.6	14	10	10	7	10
ARAB/AA/2	15	7	1.4	6	5	10	10	10
ARAB/AA/3	13	8	1.5	6	4	7	7	10
ARAB/AA/5	14	9	1.2	8	8	10	10	10
ARAB/AA/6	18	12	1	5	6	10	10	10
ARAB/AA/7	16	4	0.85	10	6	10	10	10
ARAB/AA/8	15	5	1.3	5	6	7	7	10
ARAB/AA/12	20	6.5	1.6	10	8	10	7	10
ARAB/AA/1	12	4.25	1.72	5.15	6	10	7	10
ARAB/AA/2	14	4.5	1.39	5.8	5	10	10	10
ARAB/AA/3	14	5	1.45	4.9	5	10	10	10
ARAB/AA/4	12	5.14	0.91	5	6	10	10	10
ARAB/AA/5	12	4.3	0.76	4.6	4	10	10	10
ARAB/AA/6	14	5.16	0.68	5.2	5	10	10	10
ARAB/AA/7	15	4.50	0.83	5.8	4	10	10	10
ARAB/AA/8	15	5.3	1.14	6.2	5	8	10	10
ARAB/AA/9	12	5.74	0.91	4.8	5	10	10	10

**Bold trees are existing Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.70, II.71 & II.72) and finally the total weightage score was computed as below:

Table A.2.H.2.1.2 Total Weightage Score of Candidate Plus Trees of *Acacia auriculiformis* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/AA/1	86
ARAB/AA/2	87.75
ARAB/AA/3	77.25
ARAB/AA/5	88.5
ARAB/AA/6	91
ARAB/AA/7	80
ARAB/AA/8	73
ARAB/AA/12	88.75
ARAB/AA/1	80
ARAB/AA/2	83.75
ARAB/AA/3	83.75
ARAB/AA/4	80.5
ARAB/AA/5	76.25
ARAB/AA/6	79.75
ARAB/AA/7	77.75
ARAB/AA/8	80.75
ARAB/AA/9	80.25
Average	**82.06**

All the trees are distributed over a large area (Fig. A.2.H.2.1.1), the trees above average will be taken as plus trees and remaining as candidate plus trees. ARAB/AA/6, ARAB/AA/12, ARAB/AA/5, ARAB/AA/2, ARAB/AA/1, **ARAB/AA/2** and **ARAB/AA/3** will be marked as plus trees and remaining will be retained as candidate plus trees.

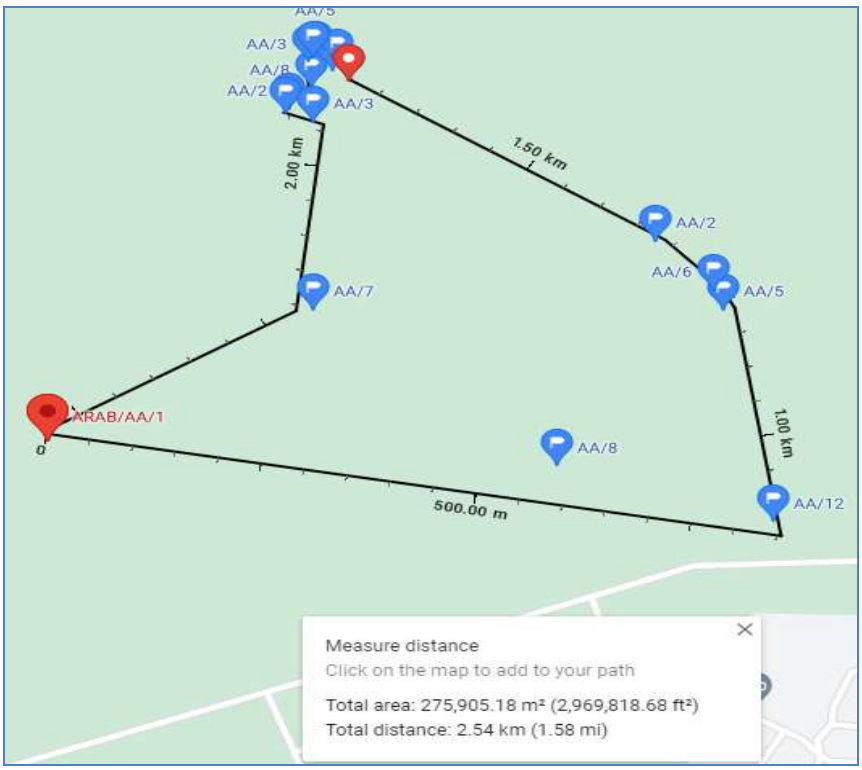


Fig. A.2.H.2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in Medinipur Division

A.2.H.2.2 *Alstonia scholaris*

7 trees were observed in the division and all were phenotypically good (Table A.2.H.2.2.1). All the trees will be retained as candidate plus trees.

Table A.2.H.2.2.1 Growth data of Candidate Plus Trees of *Alstonia scholaris* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/AS/1	19	11	1.6	7	5	10	7	10
ARAB/AS/2	20	3.5	1.7	12	17	10	10	10
ARAB/AS/3	17	4	2	18	19	7	7	10
ARAB/AS/4	20	4	1.65	14	16	10	10	10
ARAB/AS/1	20	8.5	2.02	8	9	10	10	10
ARAB/AS/2	18	8	1.70	8	7	10	10	10
ARAB/AS/3	18	7	1.45	9	8	10	10	10

**Bold trees are candidate plus trees*

After all the analysis (Annexure-II, Table II.73, II.74 & II.75), total weighted scores are as ahead:

Table A.2.H.2.2.2 Total Weightage Score of Candidate Plus Trees of *Alstonia scholaris* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/AS/1	86
ARAB/AS/2	87.5
ARAB/AS/3	77
ARAB/AS/4	85.5
ARAB/AS/1	96.25
ARAB/AS/2	87
ARAB/AS/3	83.25
Average	**86.07**

All the trees are located within 1 hectare area (Fig. Fig. A.2.H.2.2.1), hence **ARAB/AS/1** will be marked as plus tree and remaining will be retained as candidate plus trees.

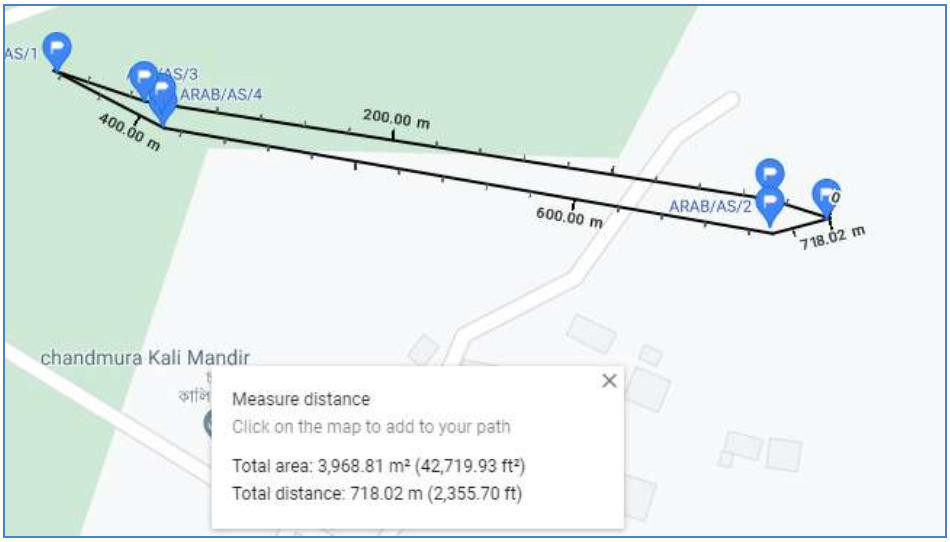


Fig. A.2.H.2.2.1 Area and Location of Different Trees of *Alstonia scholaris* in Medinipur Division

A.2.H.2.3 *Azadirachta indica*

5 trees were found in the field, which had desirable phenotypical characters (Table A.2.H.2.3.1). The tree will be retained as candidate plus tree.

Table A.2.H.2.3.1 Growth data of Candidate Plus Trees of *Azadirachta indica* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MIRGA/AI/1	13	2.7	1.50	15	3	10	10	10
MIRGA/AI/1	14	2.3	1.65	19	4	8	10	10
MIRGA/AI/2	14	4.2	1.33	17.2	5	10	10	10
MIRGA/AI/3	13	3.3	1.77	18	4	8	10	10
MIRGA/AI/4	13	2.10	1.42	16	4	8	10	10

**Bold trees are candidate plus trees*

A.2.H.2.4 *Cassia siamea*

Only 2 trees were found in the field, which had desirable phenotypical characters (Table E.2.3.1). The tree will be retained as candidate plus tree.

Table A.2.H.2.4.1 Growth data of Candidate Plus Trees of *Cassia siamea* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/CS/1	12	4.0	0.97	14	3	10	10	10
ARAB/CS/2	14	4.87	1.24	12	5	10	10	10

A.2.H.2.5 *Eucalyptus tereticornis*

Only 1 plus tree was found in the field, which had desirable phenotypical characters (Table A.2.H.2.5.1). The tree will be retained as plus tree.

Table A.2.H.2.5.1 Growth data of Plus Trees of *Eucalyptus tereticornis* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/ET/1	23	6.9	1.69	12	6	10	10	10

A.2.H.2.6 *Gmelina arborea*

2 trees were observed in the field and were phenotypically good. Both trees will be remained as candidate plus trees in the division. Growth data of same is as follow:

Table A.2.H.2.6.1 Growth data of Candidate Plus Trees of *Gmelina arborea* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/GA/1	16	7	1.2	6	4	10	7	10
ARAB/GA/2	12	10	0.95	5	6	10	10	10

A.2.H.2.7 *Lagerstroemia parviflora*

After Rejection, 10 phenotypically good trees were observed in the division (Table A.2.E.2.7.1).

Table A.2.E.2.7.1 Growth data of Candidate Plus Trees of *Lagerstroemia parviflora* in Medinipur Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/LP/1	14	2.5	1.1	8	12	10	8	10
ARAB/LP/2	17	7	1.3	10	14	10	10	10
ARAB/LP/3	15	3	1.6	11	10	8	10	10
ARAB/LP/4	21	6	1.7	15	12	8	10	10
ARAB/LP/5	14	4.5	1.3	10	15	10	8	10
ARAB/ LP/1	13	2.5	1.19	8	4	10	10	10
ARAB/ LP/2	14	2.7	1.3	7.5	4	10	10	10
ARAB/ LP/3	14	3.5	1.39	8	5	10	10	10
ARAB/ LP/1	14	4.6	1.32	9	4	10	10	10
ARAB/ LP/2	16	5.5	1.36	8	5	10	10	10

**Bold trees are plus trees & italics one are candidate plus trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial

use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.76, II.77 & II.78) and finally the total weightage score was computed as below:

Table A.2.E.2.7.2 Total Weightage Score of trees of *Lagerstroemia parviflora* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/LP/1	73.75
ARAB/LP/2	90.25
ARAB/LP/3	83.5
ARAB/LP/4	94.75
ARAB/LP/5	80.25
ARAB/ LP/1	76
ARAB/ LP/2	78
ARAB/ LP/3	82.25
ARAB/ LP/1	82.25
ARAB/ LP/2	87.75
Average	**82.88**

9 trees are located in Arabari and distributed over one hectare area and **ARAB/ LP/1** is different location. Hence ARAB/LP/4 and ARAB/LP/2 will be marked as plus trees and remaining as candidate plus trees. **ARAB/ LP/1** has less value than average so wil be marked as candidate plus tree.

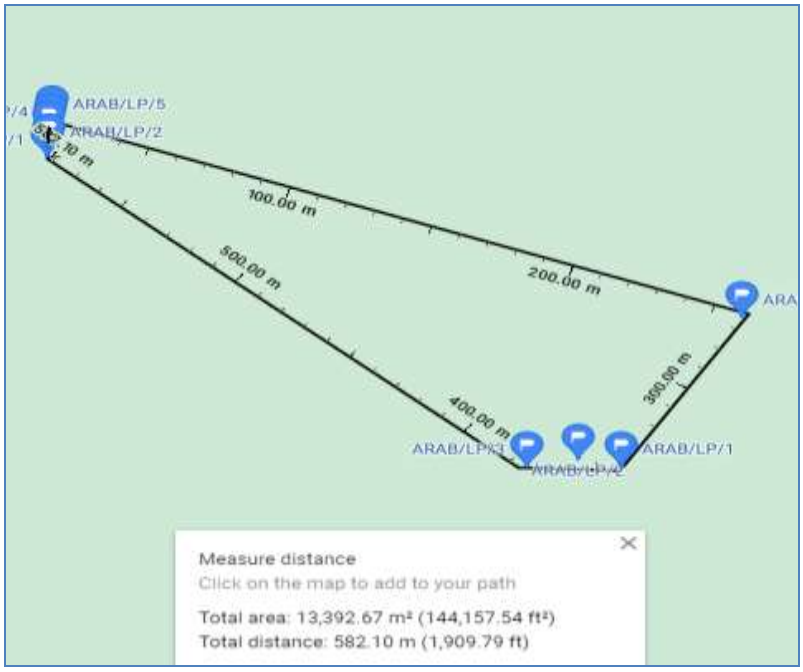


Fig. A.2.H.2.7.1 Area and Location of Different Trees of *Lagerstroemia parviflora* in Medinipur Division

A.2.H.2.8 *Madhuca latifolia*

4 plus trees were found in the field, which had desirable phenotypical characters (Table A.2.H.2.8.1).

Table A.2.H.2.8.1 Growth data of Plus Trees of *Madhuca latifolia* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
GAGR/ML/1	10	3.5	0.92	7	6	10	10	10
GAGR/ML/2	8	3.1	0.72	8	6	10	10	10
GAGR/ML/3	9	2.9	0.85	8	5	10	10	10
GAGR/1	10	3.4	1.03	8.5	4	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.79, II.80 & II.81) and finally the total weightage score was computed as below:

Table A.2.H.2.8.1 Total Weightage Score of trees of *Madhuca latifolia* in Medinipur Division

Tree No.	Total Weightage Score
GAGR/ML/1	89
GAGR/ML/2	88
GAGR/ML/3	88.5
GAGR/1	94
Average	**89.88**

All the trees are located within one hectare area (Fig. A.2.H.2.8.1), hence only 1 tree (GAGR/1) will be retained as plus tree and remaining as candidate plus trees.

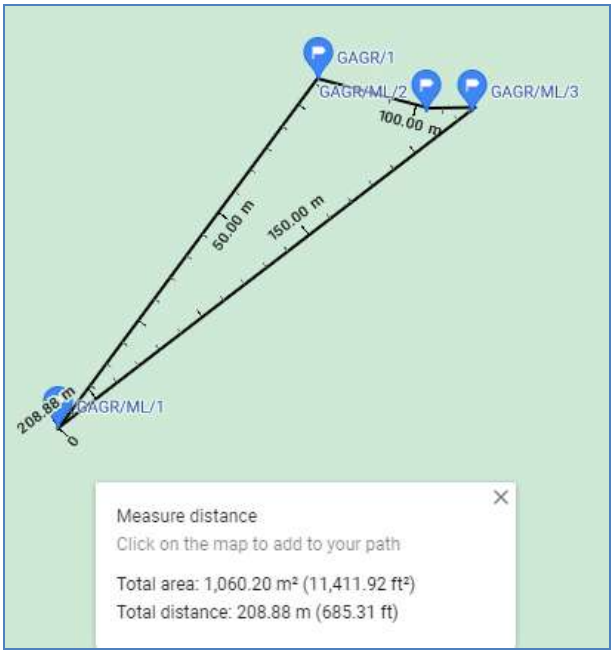


Fig. A.2.H.2.8.1 Area and Location of Different Trees of *Madhuca latifolia* in Medinipur Division

A.2.H.2.9 *Pterocarpus marsupium*

In totality 7 trees were found in the division and all were phenotypically good (Table A.2.H.2.9.1).

Table A.2.H.2.9.1 Growth data of Plus Trees and Candidate Plus Trees of *Pterocarpus marsupium* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/PM/1	16	9	1.5	10	7	10	10	10
ARAB/PM/2	17	5	1.4	12	10	10	10	10
ARAB/PM/3	21	5.5	2	14	14	10	7	10
ARAB/PM/4	20	6	1.4	8	7	10	10	10
GAGR/PM/1	16	6.5	2.15	12	5	10	10	10
ARB/PM/1	13	2.6	1.39	10	5	10	10	10
ARB/PM/2	14	3.05	1.72	10	4	10	10	10

**Bold trees are plus trees & italics ones are candidate plus trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.82, II.83 & II.84) and finally the total weightage score was computed as below:

Table A.2.H.2.9.2: Total Weightage Score of trees of *Pterocarpus marsupium* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/PM/1	87.75
ARAB/PM/2	82.5
ARAB/PM/3	91.5
ARAB/PM/4	86.5
GAGR/PM/1	94
ARB/PM/1	76.5
ARB/PM/2	80.25
Average	**85.57**

4 trees are in Chandmura location and are located within 1 hectare (Fig. A.2.H.2.9.1) and 2 are located very near to each other in Arabari (Fig. A.2.H.2.9.2). **GAGR/PM/1** is located far from other trees. **GAGR/PM/1** will be retained as plus tree. In first location Chandmura**,** ARAB/PM/3 will be marked as plus tree and remaining three will be retained as candidate plus trees. However the two trees located in Arabari has less score than average so will be retained as candidate plus trees.

Fig. A.2.H.2.9.1 Area and Location of Different Trees of *Pterocarpus marsupium* in Chandpura Location of Medinipur Division

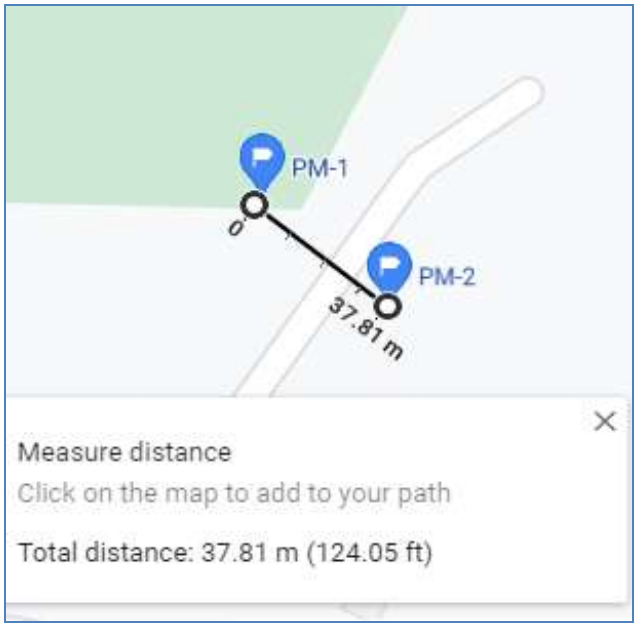


Fig. A.2.H.2.9.2 Area and Location of Different Trees of *Pterocarpus marsupium* in Arabari Location of Medinipur Division

A.2.H.2.10 *Terminalia arjuna*

13 phenotypically good trees were observed in the field and required data has been collected for all (Table A.2.H.2.10.1).

Table A.2.H.2.10.1 Growth data of Candidate Plus Trees of *Terminalia arjuna* in Medinipur Division

Tree No.		Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark thickness (mm)	Stem Straightness	Stem Form	Infection
ARAB/TA/1	22	7	1.6	12	10	1.5	10	10	10
ARAB/TA/2	21	10	1.75	8	6	1.35	10	10	10
ARAB/TA/3	23	6	1.8	10	5	1.65	10	8	10
ARAB/TA/4	17	9	1.5	7	4	1.73	10	10	10
ARAB/TA/5	21	5.5	1.55	9	4	1.25	10	10	10
BURA/TA/1	13	3.5	1.4	15	6	1.15	8	10	10
BURA/TA/2	14	6	1.05	12	10	1.43	10	10	10
BURA/TA/3	16	3.5	1.45	16	9	1.67	10	10	10
BURA/TA/4	17	7	1.85	18	8	1.20	8	10	10

BURA/TA/5	15	5.5	1.3	10	8	1.30	10	8	10
ARAB/TA/1	15	4.3	1.25	12	6	1.30	10	10	10
ARAB/TA/2	15	3.2	1.05	13	5	1.40	10	10	10
ARAB/TA/3	16	4.5	1.85	13	6	1.50	10	10	10

*Bold trees are candidate plus trees

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.85, II.86 & II.87) and finally the total weightage score was computed as below:

Table A.2.H.2.10.2 Total Weightage Score of Candidate Plus Trees of *Terminalia arjuna* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/TA/1	91.00
ARAB/TA/2	91.00
ARAB/TA/3	93.75
ARAB/TA/4	92.25
ARAB/TA/5	82.75
BURA/TA/1	74.25
BURA/TA/2	80.50
BURA/TA/3	86.50
BURA/TA/4	83.75
BURA/TA/5	77.50
ARAB/TA/1	78.00
ARAB/TA/2	78.50
ARAB/TA/3	84.50
Mean	**84.17**

In Arabari location, all the 5 trees are located within 1 hectare area (Fig. A.2.H.2.10.1) and also in Buramara location all the trees are within 1 hectare area (Fig. A.2.H.2.10.2). Hence ARAB/TA/1 and BURA/TA/3 will be marked as plus trees and remaining all will be retained as candidate plus trees. **ARAB/TA/3** has more score than average, hence will be selected as plus tree and other 2 will be marked as candidate plus trees.

Fig. A.2.H.2.10.1 Area and Location of Different Trees of *Terminalia arjuna* in Arabari Location of Medinipur Division

Fig. A.2.H.2.10.2 Area and Location of Different Trees of *Terminalia arjuna* in Buramara location of Medinipur Division

A.2.H.2.11 *Terminalia bellirica*

5 trees were there in the division and all were phenotypically good (Table A.2.H.2.11.1).

Table A.2.H.2.11.1 Growth data of Plus tree and Candidate Plus Trees of *Terminalia bellirica* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARAB/TB/1	**17**	**3.4**	**1.33**	**16**	**4**	**10**	**10**	**10**
BURA/TB/1	11	6	0.7	5	6	10	10	10
BURA /TB/2	17	7	1.2	6	7	10	8	10
BURA /TB/3	19	12	1.3	18	15	10	10	10
BURA /TB/4	18	4.5	1.7	18	17	8	10	10

After all the analysis (Annexure-II, Table II.88, II.89 & II.90), total weighted scores are as ahead:

Table A.2.H.2.11.2 Total Weightage Score of trees of *Terminalia bellirica* in Medinipur Division

Tree No.	Total Weightage Score
ARAB/TB/1	87.5
BURA/TB/1	78
BURA /TB/2	85.75
BURA /TB/3	95.75
BURA /TB/4	89
Average	**87.20**

As score of plus tree is more than average but less than 2 candidate trees, it will be marked as candidate plus tree and others will also be retained as candidate plus trees as sufficient trees for comparison is not there.

A.2.H.2.12 *Terminalia chebula*

Only 1 tree of the species was there in the division and same will be retained as candidate plus tree on the basis of desirable phenotypic traits (Table A.2.H.2.12.1).

Table A.2.H.2.12.1 Growth data of Candidate Plus Trees of *Terminalia chebula* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BURA/TC/1	11	0.5	1.25	18	19	7	10	10

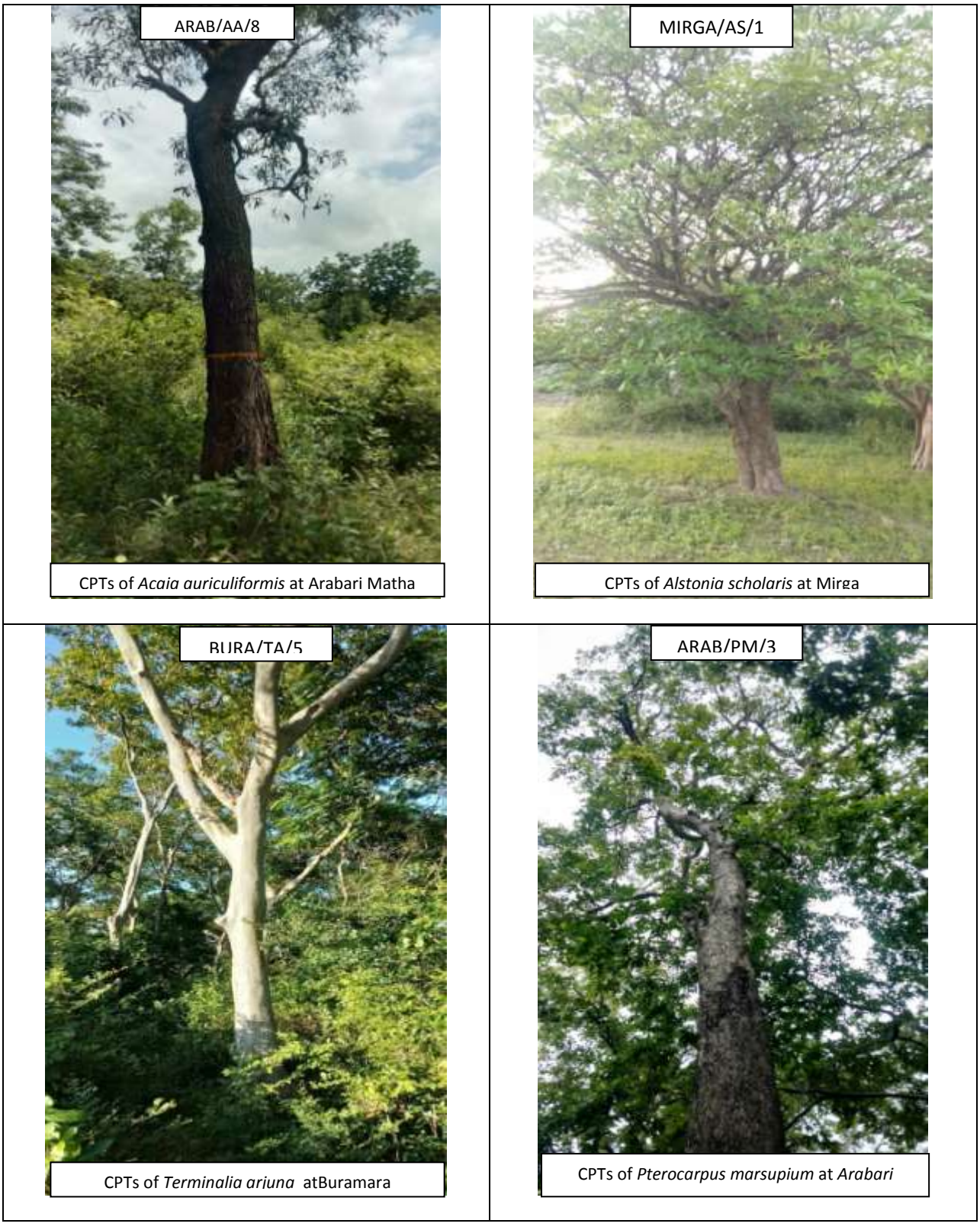


Fig. A.2.H.1 Glimpse of Candidate Plus Trees in Medinipur Division

A.2.I New Murshidabad Division

6 plus trees of 2 species were observed in the division (Table A.2.I.1).

Table A.2.I.1 Abstract of Plus Trees in NMD Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Acacia auriculiformis*	5	0	5	0	5	0
4.	*Tectona grandis*	1	0	1	0	1	0
Total		**6**	**0**	**6**	**0**	**6**	**NIL**

In case of Candidate plus trees, 69 trees were found in the field (Table A.2.I.2).

Table A.2.G.2 Abstract of Candidate Plus Trees in NMD Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	59	0	59	0	59	0
Total		**59**	**0**	**59**	**0**	**59**	**NIL**

A.2.I.1. Direct Rejection of Trees in the Field on the basis of phenotypic traits

1 plus tree of *Tectona grandis* was rejected in the division on the basis of phenotypic appearance (Table A.2.I.1.1).

Table A.2.G.1.1 Abstract of Plus Trees Rejected in NMD Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Tectona grandis*	01	RANA/TG/6	Ranaghat	Buttress & forking was observed in the tree.

As per as the candidate plus trees are concerned, 1trees was rejected in the division on the basis of their phenotypic appearance (Table A.2.I.1.2).

Table A.2.G.1.2 Abstract of Candidate Plus Trees Rejected in NMD Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Acacia auriculiformis*	01	KHIS/AA/56	Khisma	Tree was bent at a height of 1 meter from ground.

A.2.I.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.2.I.2.1 *Acacia auriculiformis*

63 phenotypically good trees were observed in the field after rejection. Growth data of same is as follow:

Table A.2.I.2.1.1 Growth data of Candidate Plus Trees of *Acacia auriculiformis* in NMD Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHIS/AA/1	32	8	142 C	8	4	10	10	10
KHIS/AA/2	22	12	120	8	4	10	10	10
KHIS/AA/4	35	15	101	7	6	10	10	10
KHIS/AA/8	22	12	183	6	4	10	10	10
KHIS/AA/28	26	10	137	10	6	10	10	10
KHIS/AA/22	30	15	133	8	4	10	10	10
KHIS/AA/70	30	10	116	6	5	10	10	10
KHIS/AA/86	31	7	103	4	3	10	10	10
KHIS/AA/157	35	8	168	10	4	10	10	10
KHIS/AA/162	35	6	160	6	6	10	10	10
KHIS/AA/163	26	15	130	10	5	10	10	10
KHIS/AA/164	27	5	145	15	8	10	10	10
KHIS/AA/165	25	10	140	10	4	10	10	10
KHIS/AA/171	26	5	170	10	6	10	10	10
KHIS/AA/172	25	7	130	8	8	10	10	10
KHIS/AA/190	35	10	135	6	4	10	10	10
KHIS/AA/230	24	8	130	20	8	10	10	10
KHIS/AA/253	22	10	125	6	6	10	10	10
KHIS/AA/255	20	12	115	10	8	10	10	10
KHIS/AA/265	20	14	105	6	4	10	10	10
KHIS/AA/272	24	15	105	8	5	10	10	10
KHIS/AA/273	24	8	105	10	5	10	10	10
KHIS/AA/278	20	8	105	6	5	10	10	10
KHIS/AA/293	24	10	126	8	4	10	10	10
KHIS/AA/295	25	6	150	16	8	10	10	10
KHIS/AA/296	25	10	160	15	6	10	10	10
KHIS/AA/299	35	15	130	10	10	10	10	10
KHIS/AA/301	36	15	135	8	8	10	10	10
KHIS/AA/308	30	11	134	10	7	10	10	10
KHIS/AA/309	35	15	175	14	8	10	10	10
KHIS/AA/442	36	6	186	12	4	10	10	10

KHIS/AA/494	35	18	125	10	3	10	10	10
KHIS/AA/495	25	5	152	12	7	10	10	10
KHIS/AA/496	32	4	152	12	4	10	10	10
KHIS/AA/1	28	7	1.5	5	5	7	7	10
KHIS/AA/2	15	9	1.35	6	4	7	7	10
KHIS/AA/3	13	7	1.6	6	4	7	7	10
KHIS/AA/4	18	8	1.85	6	3	10	7	10
KHIS/AA/5	17	6	1.4	8.5	3	7	10	10
KHIS/AA/6	28	12	1.1	5	2	7	10	10
KHIS/AA/7	15	7	1.15	6	3	7	7	10
KHIS/AA/9	16	7	1.3	4.5	5	7	7	10
KHIS/AA/10	19	8	1.29	7	4	7	7	10
KHIS/AA/11	17	7	1.35	12	3	10	7	10
KHIS/AA/12	26	4	1.3	5	8	10	10	10
KHIS/AA/13	18	4.5	1.95	9	6	7	10	10
KHIS/AA/14	18	4.5	1.1	3	3	7	10	10
KHIS/AA/15	16	3	1.25	3	4	7	7	10
KHIS/AA/16	17	6	1.6	4.5	4	7	7	10
KHIS/AA/17	16	5	1.5	6.5	6	7	7	10
KHIS/AA/18	18	9	1.55	6	4	7	7	10
KHIS/AA/19	18	5	1.55	11	7	7	10	10
KHIS/AA/20	22	11	1.4	8	7	7	10	10
KHIS/AA/21	14	6	1.2	4.5	4	10	7	10
KHIS/AA/24	20	4	1.65	9.5	10	10	7	10
KHIS/AA/25	13	3	1	4	3	10	10	10
KHIS/AA/27	22	9	1.45	14	5	7	10	10
KHIS/AA/28	21	10	1.6	8	4	7	7	10
KHIS/AA/34	14	4.5	1.32	3	3	7	7	10
KHIS/AA/50	16	7	1.7	7	18	7	10	10
KHIS/AA/131	14	2	1.5	5	6	7	7	10
KHIS/AA/134	13	6	1.25	14	4	7	10	10
KHIS/AA/148	19	9	1.8	11	6	10	7	10

**Bold trees are already existing plus trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.91, II.92 & II.93) and finally the total weightage score was computed as below:

Table A.2.I.2.1.2 Total Weightage Score of Candidate Plus Trees of *Acacia auriculiformis* in NMD Division

Tree No.	Total Weightage Score
KHIS/AA/1	90.5
KHIS/AA/2	86
KHIS/AA/4	90.5
KHIS/AA/8	91.75
KHIS/AA/28	87.75
KHIS/AA/22	91
KHIS/AA/70	86.75
KHIS/AA/86	82.5
KHIS/AA/157	92.75
KHIS/AA/162	90.25
KHIS/AA/163	89.75
KHIS/AA/164	87.75
KHIS/AA/165	87.75
KHIS/AA/171	87.75
KHIS/AA/172	83.75
KHIS/AA/190	88.25
KHIS/AA/230	86.5
KHIS/AA/253	83.75
KHIS/AA/255	84.5
KHIS/AA/265	83.75
KHIS/AA/272	87.5
KHIS/AA/273	83.75
KHIS/AA/278	80.25
KHIS/AA/293	85.5
KHIS/AA/295	86.25
KHIS/AA/296	90
KHIS/AA/299	93
KHIS/AA/301	92.75
KHIS/AA/308	87.25
KHIS/AA/309	97.25
KHIS/AA/442	92.75
KHIS/AA/494	92.5
KHIS/AA/495	85.75
KHIS/AA/496	86.75
KHIS/AA/1	77.75
KHIS/AA/2	73.25
KHIS/AA/3	75.25
KHIS/AA/4	85
KHIS/AA/5	77.75
KHIS/AA/6	82

KHIS/AA/7	69
KHIS/AA/9	71.25
KHIS/AA/10	75
KHIS/AA/11	76
KHIS/AA/12	81.5
KHIS/AA/13	81.5
KHIS/AA/14	73
KHIS/AA/15	69.25
KHIS/AA/16	75.25
KHIS/AA/17	73.5
KHIS/AA/18	76.75
KHIS/AA/19	79.75
KHIS/AA/20	81.5
KHIS/AA/21	75.75
KHIS/AA/24	79.75
KHIS/AA/25	76
KHIS/AA/27	82
KHIS/AA/28	79
KHIS/AA/34	69
KHIS/AA/50	80.75
KHIS/AA/131	71.25
KHIS/AA/134	76.5
KHIS/AA/148	85.75
Average	**82.93**

All the trees are within the area of 29 hectare (Fig. A.2.I.2.1.1), hence, 29 trees having score more than average value can be selected as plus trees and remaining as candidate plus trees.

Table A.2.I.2.1.3 Plus Trees of *Acacia auriculiformis* in NMD Division

KHIS/AA/309	97.25
KHIS/AA/299	93
KHIS/AA/157	92.75
KHIS/AA/301	92.75
KHIS/AA/442	92.75
KHIS/AA/494	92.5
KHIS/AA/8	91.75
KHIS/AA/22	91
KHIS/AA/1	90.5
KHIS/AA/4	90.5
KHIS/AA/162	90.25

KHIS/AA/296	90
KHIS/AA/163	89.75
KHIS/AA/190	88.25
KHIS/AA/28	87.75
KHIS/AA/164	87.75
KHIS/AA/165	87.75
KHIS/AA/171	87.75
KHIS/AA/272	87.5
KHIS/AA/308	87.25
KHIS/AA/70	86.75
KHIS/AA/496	86.75
KHIS/AA/230	86.5
KHIS/AA/295	86.25
KHIS/AA/2	86
KHIS/AA/495	85.75
KHIS/AA/148	85.75
KHIS/AA/293	85.5
KHIS/AA/4	85

Fig. A.2.I.2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in NMD Division

Plus Tree of *Terminalia ariuna* at Matha

Plus Tree of *Acacia auriculiformis* at Khisma

Plus Tree of *Holdina cordifolia* at Bethua

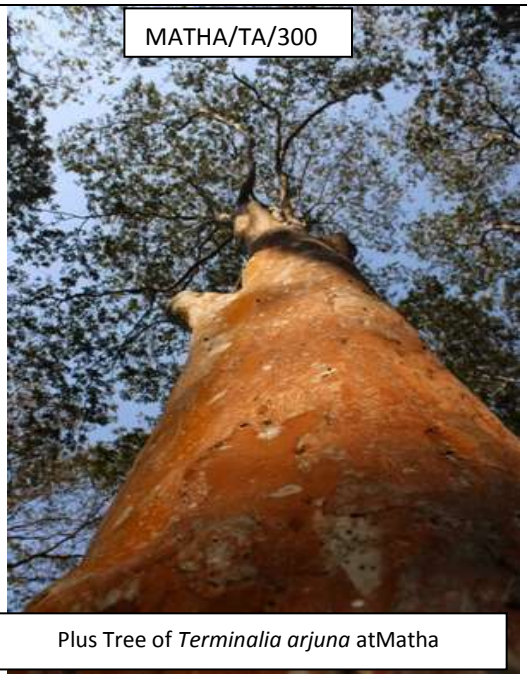
Plus Tree of *Tectona grandis* atRanaghat

Fig. A.2.I.1 Glimpse of Existing Plus Trees of NMD Division

CPTs of *Tectona grandis* atRanaghat

CPTs of *Acacia auriculiformis* atKhidma

CPTs of *Swietenia macrophylla* atBethua



Plus Tree of *Terminalia arjuna* atMatha

Fig. A.2.I.2 Glimpse of Existing Candidate Plus Trees of NMD Division

A.2.J. Panchet Division

20 plus trees of 1 species (Table A.2.J.1) and 56 candidate plus trees of same species were recorded in the division (Table A.2.J.2).

Table A.2.J.1 Abstract of Plus Trees in Burdwan Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	20	0	20	0	20	0
Total		20	0	20	0	20	**0**

Table A.2.J.2 Abstract of Candidate Plus Trees in Burdwan Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	56	0	56	0	56	0
Total		56	0	56	0	56	**0**

A.2.J.1 Direct Rejection of Candidate Plus Trees in the Field on the basis of phenotypic traits

3 trees were discarded on the basis of phenotypic characters (table A.2.J.1.1).

Table A.2.J.1.1 Abstract of Candidate Plus Trees Rejected in Panchet Division

Sl No.	Species Name	No. of Trees Rejected	CPT Tree Number	Location	Reason for rejecting/ Discarding
1	*Acacia auriculiformis*	03	SITA/AA/24	Piaradoba	Broken and fall down
			SITA/AA/36	Piaradoba	Bend and fall down
			SITA/AA/48	Piaradoba	Bend from ground

A.2.J.2 Analysis of Data

Data on phenotypic traits was analyzed to get desired number of candidate plus trees (depending upon the area).

A.2.J.2.1 *Acacia auriculiformis*

In totality 73 phenotypically good trees were observed in the division (Table A.2.J.2.1.1).

Table A.2.J.2.1.1 Growth data of Plus Trees and Candidate Plus Trees of *Acacia auriculiformis* in Panchet Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BHED/AA/5	10	4.5	0.68	3.0	4	10	10	10
BHED/AA/6	11	8	0.58	3.0	5	10	10	10
BHED/AA/8	10	7.5	0.57	2.5	3	10	10	10
BHED/AA/14	9	5	0.63	3.5	4	10	10	10
BHED/AA/15	11	6	0.72	5.0	6	8	10	10
SITA/AA/2	12	8	1.30	9	6	8	10	10
SITA/AA/4	13	4	1.15	8	5	8	10	10
SITA/AA/9	16	12	1.21	10	4	10	10	10
SITA/AA/11	23	20	1.07	6	4	10	10	10
SITA/AA/14	14	7	0.86	5.5	5	10	10	10
SITA/AA/18	10	3.5	0.78	5.5	5	8	10	10
SITA/AA/28	22	10	0.70	7	5	8	10	10
SITA/AA/40	21	15	1.10	6	3	8	10	10
SITA/AA/44	19	13	1.25	7	7	6	10	10
SITA/AA/46	20	14	0.87	10	6	10	10	10
SITA/AA/51	18	15	0.63	6	3	8	8	10
SITA/AA/52	14	10	1.02	7	4	8	10	10
SITA/AA/53	16	12	1.01	8	5	10	10	10
SITA/AA/59	21	1	0.81	6	6	8	10	10
SITA/AA/60	20	12	1.47	7	6	10	10	10
BHED/AA/1	14	8	0.70	4	4	8	10	10
BHED/AA/2	9	6	0.70	2.5	4	8	10	10
BHED/AA/3	10	4	0.80	5	7	8	10	10
BHED/AA/4	8	2	0.71	3	6	6	10	10
BHED/AA/7	8	5	0.68	3.5	4	18	10	10
BHED/AA/9	11	7	0.63	3	3	8	10	10
BHED/AA/10	10	5	0.72	4	6	6	10	10
BHED/AA/11	11	4.5	0.70	3	5	8	10	10
BHED/AA/12	10	5	0.67	4	6	8	10	10

BHED/AA/13	9	4.5	0.68	2.5	4	8	10	10
BHED/AA/16	12	5	0.69	3.5	5	8	10	10
SITA/AA/1	18	15	0.85	5	5	8	10	10
SITA/AA/3	11	3.5	0.72	5	4	8	10	10
SITA/AA/5	13	5	0.77	5	3	6	8	10
SITA/AA/6	13	8	0.83	5.5	4	8	10	10
SITA/AA/7	15	6	1.24	7.5	7	10	10	10
SITA/AA/8	12	6	0.82	5.5	3	8	10	10
SITA/AA/10	13	8	0.88	5	5	8	10	10
SITA/AA/12	15	6	1.32	8.5	8	10	10	10
SITA/AA/13	13	0.5	0.81	4.5	5	6	8	10
SITA/AA/15	10	3.5	0.78	5.5	5	8	10	10
SITA/AA/16	11	5.5	0.80	6	8	8	10	10
SITA/AA/17	10	6	0.73	3	3	8	10	10
SITA/AA/19	10	6	0.86	8	7	8	10	10
SITA/AA/20	9	3.5	0.68	5.5	8	8	10	10
SITA/AA/21	12	7	0.87	6	6	8	10	10
SITA/AA/22	7.5	3.5	0.69	6	9	8	10	10
SITA/AA/23	10	5	0.76	5	5	8	10	10
SITA/AA/25	10	2	0.78	5.5	8	8	10	10
SITA/AA/26	16	13	1.08	11	7	8	10	10
SITA/AA/27	22	13	0.93	9	8	8	10	10
SITA/AA/29	21	13	1.02	10	6	8	10	10
SITA/AA/30	22	14	1.07	8	8	6	10	10
SITA/AA/31	18	8	1.13	10	10	8	10	10
SITA/AA/32	18	12	1.01	11	3	10	10	10
SITA/AA/33	17	10	1.02	7	3	8	10	10
SITA/AA/34	19	11	1.02	6	5	8	10	10
SITA/AA/35	20	12	1.04	8	5	8	10	10
SITA/AA/37	15	5	0.83	7.5	5	8	10	10
SITA/AA/38	17	10	1.01	8	5	8	10	10
SITA/AA/39	17	8	1.01	5	4	8	10	10
SITA/AA/41	12	6	1.08	4	3	8	10	10
SITA/AA/42	14	7	1.01	5	3	8	10	10
SITA/AA/43	14	7	0.85	4	4	8	10	10
SITA/AA/45	8	4	0.67	5	3	10	10	10
SITA/AA/47	13	7	0.93	9.5	9	8	10	10
SITA/AA/49	10	4	0.79	5	8	8	10	10
SITA/AA/50	9	5	0.82	5	5	8	10	10
SITA/AA/54	20	11	0.87	7	5	8	10	10
SITA/AA/55	10	7	0.89	7	3	10	10	10
SITA/AA/56	18	10	0.85	6	4	8	10	10
SITA/AA/57	21	11	0.92	5	5	8	10	10
SITA/AA/58	20	12	0.90	6	6	8	10	10

To finalize the trees to be retained and further selection of plus trees, data was further analyzed (Annexure-II, Table II.94, II.95 & II.96) and total weighted scores of the same are as follow:

Table A.2.J.2.1.1 Total Weightage Score of trees of *Acacia auriculiformis* in Panchet Division

Tree No	Total Weightage Score
BHED/AA/5	76.25
BHED/AA/6	80
BHED/AA/8	78.25
BHED/AA/14	76.25
BHED/AA/15	77.25
SITA/AA/2	83.75
SITA/AA/4	81.75
SITA/AA/9	90.25
SITA/AA/11	94.75
SITA/AA/14	83.75
SITA/AA/18	75.75
SITA/AA/28	84
SITA/AA/40	89.75
SITA/AA/44	87.75
SITA/AA/46	90
SITA/AA/51	81.25
SITA/AA/52	84.75
SITA/AA/53	88.25
SITA/AA/59	82

SITA/AA/60	93.5
BHED/AA/1	78.25
BHED/AA/2	75.25
BHED/AA/3	76
BHED/AA/4	70.5
BHED/AA/7	90.25
BHED/AA/9	76.75
BHED/AA/10	72.5
BHED/AA/11	75
BHED/AA/12	75.5
BHED/AA/13	73.25
BHED/AA/16	77
SITA/AA/1	86.25
SITA/AA/3	75
SITA/AA/5	73
SITA/AA/6	79
SITA/AA/7	88.25
SITA/AA/8	79
SITA/AA/10	79.25
SITA/AA/12	90.5
SITA/AA/13	71.25
SITA/AA/15	75.75
SITA/AA/16	79.75
SITA/AA/17	75.25
SITA/AA/19	78.5

SITA/AA/20	74
SITA/AA/21	79.5
SITA/AA/22	74.5
SITA/AA/23	77.75
SITA/AA/25	76
SITA/AA/26	87.75
SITA/AA/27	88.5
SITA/AA/29	79.02
SITA/AA/30	87.5
SITA/AA/31	87.5
SITA/AA/32	89.75
SITA/AA/33	86.25
SITA/AA/34	86.5
SITA/AA/35	86.75
SITA/AA/37	81
SITA/AA/38	86.75
SITA/AA/39	84
SITA/AA/41	80.75
SITA/AA/42	82.5
SITA/AA/43	80.25
SITA/AA/45	76.5
SITA/AA/47	80.25
SITA/AA/49	76
SITA/AA/50	77.75
SITA/AA/54	84.5

SITA/AA/55	80.75
SITA/AA/56	84.25
SITA/AA/57	85.75
SITA/AA/58	84.5
Average	**81.49**

In Behdiya location, all trees were located within 1 hectare area (Fig. A.2.J.2.1.1), hence one tree (BHED/AA/7) will be selected as plus tree and **BHED/AA/6**, BHED/AA/1, **BHED/AA/8, BHED/AA/15,** BHED/AA/16 and BHED/AA/9 as candidate plus trees. Remaining will be discarded from the list.

In Sita Rampur Location, trees were distributed over 14 hectare area (Fig. A.2.J.2.1.2). Hence 15 trees i.e **SITA/AA/11, SITA/AA/60,** SITA/AA/12**, SITA/AA/9, SITA/AA/46, SITA/AA/40,** SITA/AA/32, SITA/AA/27**, SITA/AA/53,** SITA/AA/7**, SITA/AA/44,** SITA/AA/26, SITA/AA/31, SITA/AA/11 and SITA/AA/35 will be marked as plus trees and remaining as candidate plus trees.

Fig. A.2.J.2.1.1 Area and Location of Different Trees of *Acacia auriculiformis* in Behdiya Location of Panchet Division

Fig. A.2.J.2.1.2 Area and Location of Different Trees of *Acacia auriculiformis* in Sita Rampur Location of Panchet Division

A.2.K. Purba Medinipur Division

22 candidate plus trees of 1 species were recorded in the division (Table A.2.C.1).

Table A.2.C.1 Abstract of Candidate Plus Trees in Purba Medinipur Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Acacia auriculiformis*	22	0	22	0	22	0
Total		22	0	22	0	22	**0**

A.2.K.1 Direct Rejection of Candidate Plus Trees in the Field on the basis of phenotypic traits

8 numbers of trees were rejected in the division (Table A.2.K.1.1).

Table A.2.K.1.1 Abstract of Candidate Plus Trees Rejected in Purba Medinipur Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Acacia auriculiformis*	08	KHAD/AA/8		Cyclone damage
			Chan/AA/9		Private Land & felled
			Chan/AA/10		Private Land & felled
			Chan/AA/11		Private Land & felled
			Chan/AA/12		Private Land & felled
			Chan/AA/13		Private Land & felled
			Chan/AA/14		Private Land & felled
			Chan/AA/15		Private Land & felled

A.2.K.2 Analysis of Data

Data on phenotypic traits was analyzed to get desired number of candidate plus trees (depending upon the area).

A.2.K.2.1 *Acacia auriculiformis*

14 phenotypically good trees were observed in the division (Table A.2.K.2.1.1).

Table A.2.K.2.1.1 Growth data of Plus Trees of *Acacia auriculiformis* in Purba Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHAD/AA/1	25	20	1.6	13	5	10	10	10
KHAD/AA/2	22	13	1.3	9.2	6	10	10	10
KHAD/AA/3	20	10	1.1	7.3	3	10	10	10
KHAD/AA/4	23	15	1.5	6.4	4	10	10	10
KHAD/AA/5	18	9	1.1	4.4	4	10	10	10
KHAD/AA/6	19	8	1.9	4.4	6	8	10	10
KHAD/AA/7	20	8	1.75	10.2	6	10	10	10

KHAD/AA/9	21	11	1.3	8.6	6	10	8	10
KHAD/AA/10	21	11	1.1	5.5	3	8	8	10
KHAD/AA/11	25	21	1.35	2.8	2	8	8	10
KHAD/AA/12	22	16	1.1	4.8	5	8	8	10
KHAD/AA/13	25	10	1.3	4.6	5	8	8	10
KHAD/AA/14	26	17	1.6	7.6	2	8	8	10
KHAD/AA/15	25	14	1.5	11.5	5	8	8	10

To finalize the trees to be retained and further selection of plus trees, data was further analyzed (Annexure-II, Table II.97, II.98 & II.99) and total weighted scores of the same are as follow:

Table A.2.K.2.1.2 Total Weightage Score of trees of *Acacia auriculiformis* in Purba Medinipur Division

Tree No.	Total Weightage Score
KHAD/AA/1	97.75
KHAD/AA/2	84.75
KHAD/AA/3	78.25
KHAD/AA/4	89.25
KHAD/AA/5	76.5
KHAD/AA/6	82
KHAD/AA/7	85.25
KHAD/AA/9	80
KHAD/AA/10	74
KHAD/AA/11	86
KHAD/AA/12	79.75
KHAD/AA/13	78.75
KHAD/AA/14	88.5
KHAD/AA/15	85.75
Average	**83.32**

All the trees are within 1 hectare area, hence only one tree will be marked as plus tree (KHAD/AA/1) and KHAD/AA/4, KHAD/AA/14, KHAD/AA/11, KHAD/AA/15, KHAD/AA/7and KHAD/AA/2 will be retained as candidate plus trees.

A.2.L Purulia Division

307 trees of 11 species were actually found in the division (Table A.2.L.1) and collected the required data of the same.

Table A.2.L.1 Abstract of Candidate Plus Trees in Purulia Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Ailanthus grandis*	4	0	4	0	4	0
2.	Azadirachta indica	27	0	27	0	27	0
3.	*Bombax ceiba*	11	0	11	0	11	0
4.	*Buchanania cochinchinensis*	84	0	84	0	84	0
5.	*Gmelina arborea*	1	0	1	0	1	0
6.	*Lagerstroemia parviflora*	4	0	4	0	4	0
7.	*Madhuca latifolia*	9	0	9	0	9	0
8.	*Soymida febrifuga*	82	0	82	0	82	0
9.	*Syzygium cumini*	5	0	5	0	5	0
10.	*Terminalia arjuna*	67	0	67	0	67	0
11.	*Terminalia bellirica*	13	0	13	0	13	0
Total		**307**	**0**	**307**	**0**	**307**	**0**

A.2.L.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

Out of 307 candidate plus trees, 21 trees of 6 species (Table A.2.L.1.1) were discarded from the list on the basis phenotypical characters observed in the field.

Table A.2.L.1.1 Abstract of Candidate Plus Trees Rejected in Purulia Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Soymida febrifuga*	11	KHUD/SF/37	Khuddi	Forking at 1.5 mt
			KHUD/SF/39	Khuddi	Forking at 3 mt
			KHUD/SF/40	Khuddi	Forking at 2.5 mt
			KHUD/SF/41	Khuddi	Forking at 1 mt
			KHUD/SF/52	Khuddi	Forking at 2 mt.
			KHUD/SF/61	Khuddi	Forking at 2.5 mt.
			KHUD/SF/64	Khuddi	Forking at 3 mt.
			KHUD/SF/68	Khuddi	Forking at 1 mt.
			KHUD/SF/72	Khuddi	Forking at 3 mt. & top broken
			KHUD/SF/82	Khuddi	Tree has bend from 2 mt.

2.	*Buchanania cochinchinensis*	02	**KHUD/BL/6**	Khuddi	bend from 2.5mt.
			KHUD/BL/23	Khuddi	Top broken
3.	Gmelina arborea	01	BAGM/GA/1	Bhagmundi	Clear bole height was very less.
4.	*Syzygium cumini*	02	BANS/SC/1	Digardi	Both trees are on the road side
			BANS/SC/3	Digardi	
5.	*Terminalia arjuna*	02	BANS/TA/6	Banshitar	Clear bole was very short in both the trees.
			BANS/TA/7		
6.	*Terminalia bellirica*	03	CHAU/TB/2	Chauria	Forking was observed below breast height
			CHAU/TB/4	Chauria	Tree was on the road side
			CHAU/TB/5	Chauria	Forking was observed below breast height

A.2.L.2. Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.2.L.2.1 *Ailanthus grandis*

4 trees were there in the division and all were phenotypically good trees (Table A.2.L.2.1.1). All the trees will be retained as candidate plus trees.

Table A.2.L.2.1.1 Growth Data of Candidate Plus Trees of *Ailanthus grandis* in Purulia Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARS/AG/1	25	12	1.8	8	10	10	7	10
ARS/AG/2	16	5	1.15	11	4	10	7	10
ARS/AG/4	18	12	1.45	10	6	7	7	10
ARS/AG/3	17	12	1.55	6	6	7	10	10

A.2.L.2.2 *Azadirachta indica*

27 candidate plus trees of the species were found in the division. Growth data of same is as below:

Table A.2.L.2.2.1 Growth Data of Candidate Plus Trees of *Azadirachta indica* in Purulia Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ARGH/AI/1	12.19	2.5	2.32	11	9	10	6	10
ARGH/AI/2	10.66	2.5	1.60	9	6	10	6	10
ARGH/AI/3	10.66	2.0	2.00	9	4	6	6	10
ARGH/AI/4	12.19	3.65	2.10	7	6	10	10	10
ARGH/AI/5	11.58	6.09	1.65	6	8	10	10	10
ARGH/AI/6	12.19	1.5	2.16	8	7	10	6	10
ARGH/AI/7	7.62	3.04	1.85	3	5	6	6	10
ARGH/AI/8	12.19	3.65	1.54	4.5	5	6	10	10
ARGH/AI/9	7.62	3.04	2.31	2.5	5	6	10	10
ARGH/AI/10	10.66	2.13	2.80	8	5	10	6	10
ARGH/AI/11	7.62	3.65	1.30	1.5	3	10	10	10
ARGH/AI/12	7.62	1.69	1.50	2.5	3	10	6	10
ARGH/AI/13	10	3.5	1.1	1.5	7	8	10	10
ARGH/AI/14	7.70	1.82	1.90	3.5	5	10	6	10
ARGH/AI/1	19	2.5	1.65	20	18	10	10	10
ARGH/AI/2	18	6	1.4	12	12	10	6	10
ARGH/AI/3	16	3.5	1.3	8	10	6	6	10
ARGH/AI/4	16	6.5	1.4	11	6	10	10	10
ARGH/AI/5	17	1.2	1.4	10	7	10	6	10
ARGH/AI/6	18	2.5	2	20	10	10	6	10
ARGH/AI/7	15	6	1.35	10	4	10	10	10
ARGH/AI/8	16	5.5	1.3	12	10	10	10	10
ARGH/AI/9	13	5	0.85	5	4	10	10	10
ARGH/AI/10	19	4.5	1.55	15	8	10	10	10
BAGM/AI/1	18	5	1.95	15	18	10	10	10
BAGM/AI/2	10	2	0.85	5.5	16	8	10	10
ARGH/AI/1	10	1.5	1.5	4.5	6	8	10	10

**Bold texts are of trees in Raghabpur location*

After providing score and weightage to each trait (Annexure-II, Table II.100, II.101 & II.102), the total weighted scores are as follow:

Table A.2.L.2.2.2 Total Weightage Score of Candidate Plus Trees of *Azadirachta indica* in Purulia Division

Tree No.	Total Weightage Score

ARGH/AI/1	81.75
ARGH/AI/2	76.25
ARGH/AI/3	70
ARGH/AI/4	89.5
ARGH/AI/5	90
ARGH/AI/6	79.5
ARGH/AI/7	72
ARGH/AI/8	79
ARGH/AI/9	78
ARGH/AI/10	79.75
ARGH/AI/11	82
ARGH/AI/12	72
ARGH/AI/13	78.75
ARGH/AI/14	74
ARGH/AI/1	90
ARGH/AI/2	87
ARGH/AI/3	75.25
ARGH/AI/4	91.25
ARGH/AI/5	78.75
ARGH/AI/6	83.5
ARGH/AI/7	91
ARGH/AI/8	91.5
ARGH/AI/9	85
ARGH/AI/10	91
BAGM/AI/1	93.75
BAGM/AI/2	75.75
ARGH/AI/1	76.5
Average	**81.95**

In Raghabpur, all trees are within 2 hectare area (Fig. A.2.L.2.2.1), hence 2 trees will be marked as plus trees (**ARGH/AI/5** and **ARGH/AI/4)** and remaining 11 will be retained as candidate plus trees.

At Arsa, all the trees are within 1 hectare area (Fig. A.2.L.2.2.2), hence only 1 plus trees (ARGH/AI/8) will be selected as plus trees and ARGH/AI/4, ARGH/AI/10, ARGH/AI/7, ARGH/AI/1, ARGH/AI/2 and ARGH/AI/9 as candidate plus trees. Remaining 3 trees will be discarded from the list.

At Bagmundi, both the trees are within 20m distance (Fig. A.2.L.2.2.3), hence BAGM/AI/1 will be marked as plus tree and another as candidate plus tree. ARGH/AI/1 will be retained as candidate plus tree.

Fig. A.2.L.2.2.1 Area and Location of Different Trees of *Azadirachta indica* in Raghabpur Location of Purulia Division

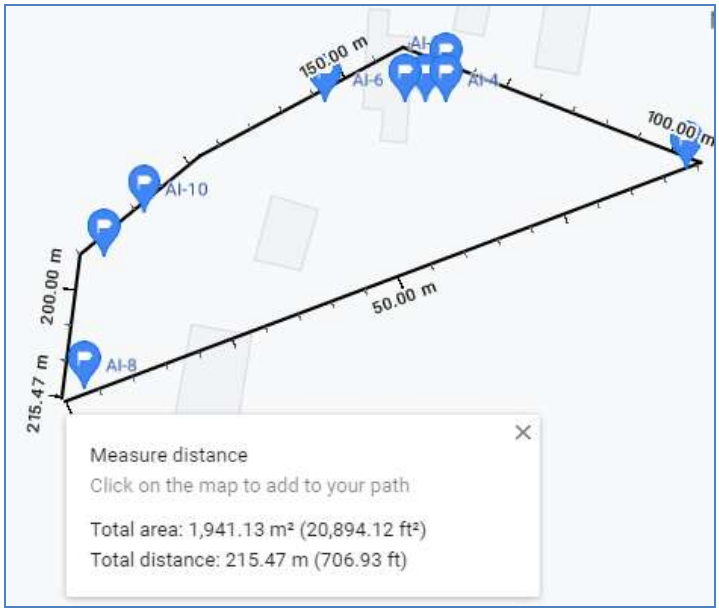


Fig. A.2.L.2.2.2 Area and Location of Different Trees of *Azadirachta indica* in Arsa Location of Purulia Division

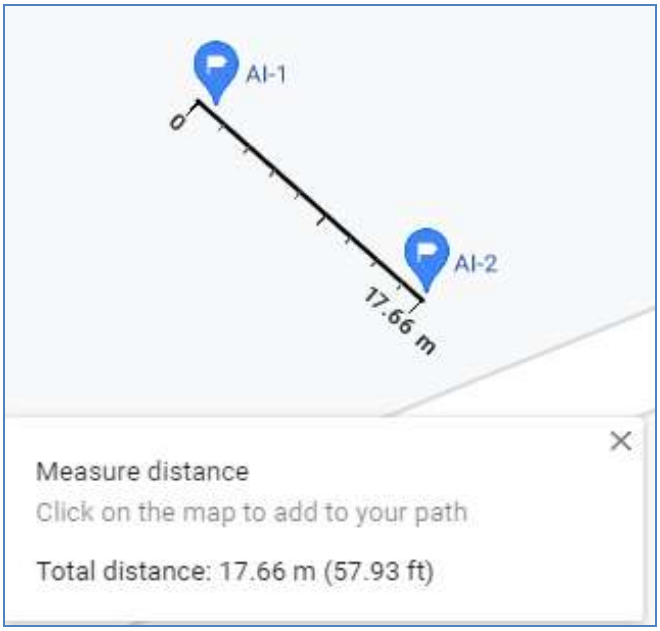


Fig. A.2.L.2.2.3 Area and Location of Different Trees of *Azadirachta indica* in Bagmundi Location of Purulia Division

A.2.L.2.3 *Bombax ceiba*

11trees were there in the division. All the trees are phenotypically good.

Table A.2.L.2.3.1 Growth data of Candidate Plus Trees of *Bombax ceiba* in Purulia Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MATHA/BC/1	19.81	13.71	2.6	8	9	10	10	6
MATHA/BC/2	21.33	13.71	1.6	8.5	11	10	6	6
MATHA/BC/3	21.33	9.14	2.35	3.9	13	6	6	10
BAGM/BC/1	16.76	10.66	2.4	10	12	10	10	10
BAGM/BC/2	18.28	9.14	2.39	8.5	14	10	6	6
ECHA/BC/1	15	8.5	2.19	14	22	10	10	10
ECHA/BC/2	11	6.5	1.75	9	16	10	10	10
ECHA/BC/3	13	8	2.19	11	13	10	10	10
ECHA/BC/4	12	6	1.89	12	17	10	10	10
ECHA/BC/5	14	9	2.18	21	15	10	10	10
ECHA/BC/6	12	7	2.05	12	8	10	10	10

After providing score and weightage to each trait (Annexure-II, Table II.103, II.104 & II.105), the total weighted scores are as follow:

Table A.2.L.2.3.2 Total Weightage Score of trees of *Bombax ceiba* in Purulia Division

Tree No.	Total Weightage Score
MATHA/BC/1	94.25
MATHA/BC/2	80.5
MATHA/BC/3	80.25
BAGM/BC/1	89.5
BAGM/BC/2	81.25
ECHA/BC/1	85
ECHA/BC/2	76.75
ECHA/BC/3	82.75
ECHA/BC/4	79.25
ECHA/BC/5	81
ECHA/BC/6	70.5
Average	**81.91**

In Matha and Inchadih locations, all the trees are within 1 hectare area (Fig. A.2.L.2.3.1 and Fig. A.2.L.2.3.3) and in Bagmundi trees are very close to each other (Fig. A.2.L.2.3.2). Hence from each location one tree can be taken as plus tree having score more than average. MATHA/BC/1, BAGM/BC/1 and ECHA/BC/1 will be marked as plus trees and remaining will be retained as candidate plus trees.

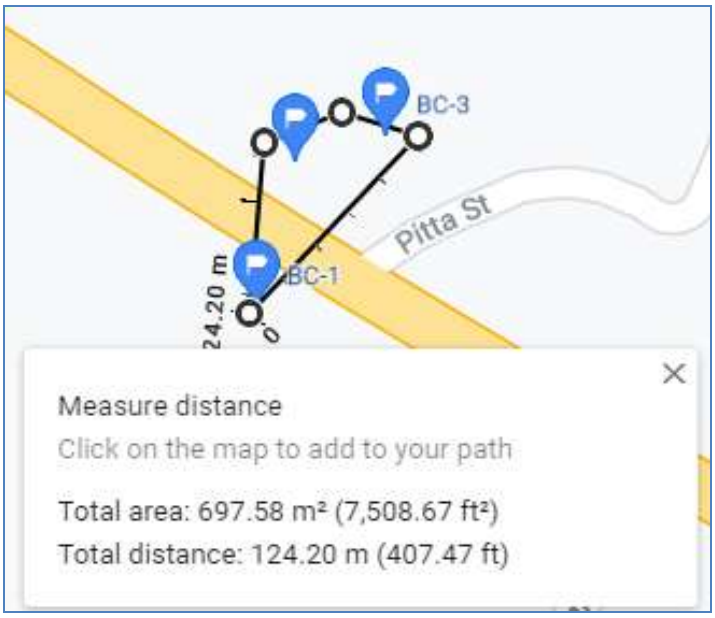


Fig. A.2.L.2.3.1 Area and Location of Different Trees of *Bombax ceiba* in Matha Location of Purulia Division

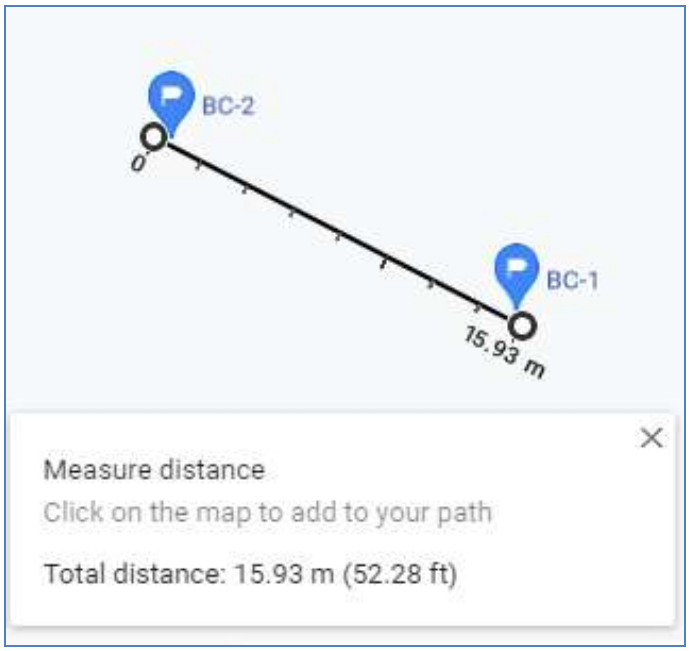


Fig. A.2.L.2.3.2 Area and Location of Different Trees of *Bombax ceiba* in Bagmundi Location of Purulia Division

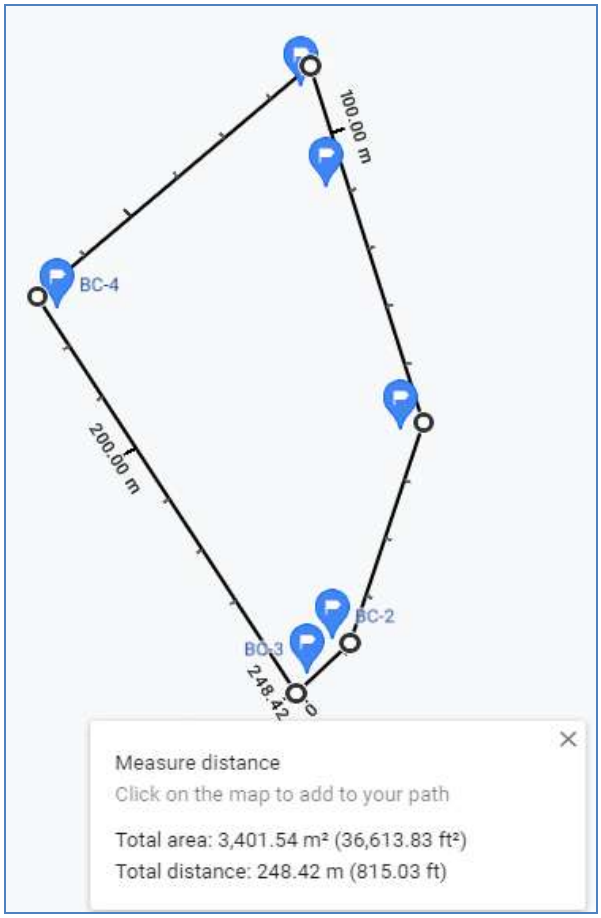


Fig. A.2.L.2.3.3 Area and Location of Different Trees of *Bombax ceiba* in Inchadih Location of Purulia Division

A.2.L.2.4 *Buchanania cochinchinensis*

82 phenotypically good trees were observed in the division. The growth data of trees is presented in table below:

Table A.2.L.2.4.1 Growth data of Candidate Plus Trees of *Buchanania cochinchinensis* in Purulia Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUD/BL/1	9.1	4.5	0.75	2	3	6	6	10
KHUD/BL/2	9.1	5.4	0.70	1.5	8	6	6	10
KHUD/BL/3	7.6	3	0.70	2.5	3	10	10	6
KHUD/BL/4	2.1	2.5	0.50	1	4	10	8	6
KHUD/BL/5	6.0	2.1	0.48	1.5	3	6	6	10
KHUD/BL/6	10	6.5	0.65	2.7	6	10	10	10
KHUD/BL/7	7.6	2.1	0.43	1.5	4	10	6	6
KHUD/BL/8	2.8	6.0	0.50	1.8	5	6	6	10
KHUD/BL/9	6.7	2.7	0.65	1	4	6	6	10
KHUD/BL/10	7.0	1.3	0.50	1	3	10	10	6
KHUD/BL/11	9.1	6.0	0.70	2	5	10	6	6
KHUD/BL/12	12.0	7.6	0.70	1.3	5	6	6	10
KHUD/BL/13	7.6	3.0	0.50	2.5	6	10	10	10
KHUD/BL/14	8.2	6.7	0.50	1.5	8	10	6	6
KHUD/BL/15	8.0	3.6	0.50	1.5	9	6	6	10
KHUD/BL/16	8.2	3.0	0.65	2	3	6	6	10
KHUD/BL/17	8.5	6.0	0.58	2.5	18	10	10	6
KHUD/BL/18	7.6	6.0	0.45	2.5	8	10	6	6
KHUD/BL/19	9.1	6.0	0.77	3	8	6	6	10
KHUD/BL/20	5.4	3.6	0.65	2	12	10	10	10
KHUD/BL/21	9.1	7.0	0.63	3	18	10	8	6
KHUD/BL/22	6.4	3.6	0.50	3	4	6	6	10
KHUD/BL/23	10.6	9.1	0.68	3.5	11	6	8	10
KHUD/BL/24	12.0	9.1	0.75	3.5	10	8	6	10
NISC/BL/1	8	3	0.41	2.5	13	6	6	10
NISC/BL/2	9.5	4	0.68	2	14	10	10	6
NISC/BL/3	10	2	0.70	3.5	21	10	6	6
NISC/BL/4	5	3.6	0.56	1.5	10	6	6	10
NISC/BL/5	5	1	0.50	1.0	21	10	10	10
NISC/BL/6	7	3	0.58	2	7	10	6	6

NISC/BL/7	6.5	3	0.55	1.7	8	8	6	10
NISC/BL/8	6	2	0.60	2	12	6	8	10
NISC/BL/9	6	2	0.60	1.8	10	6	6	10
NISC/BL/10	8	1.5	0.78	2.8	17	8	6	10
NISC/BL/11	9.5	8	0.55	2.5	7	10	10	6
NISC/BL/12	7	4	0.58	2	6	10	6	6
NISC/BL/13	7.6	3.0	0.60	2	7	6	6	10
NISC/BL/14	9.1	1.5	0.75	2.5	21	10	10	10
NISC/BL/15	8.2	5.1	0.68	2.5	7	10	6	6
NISC/BL/16	6.7	3.0	0.62	2.5	6	8	8	10
NISC/BL/17	7.0	5	0.60	3	12	6	6	10
NISC/BL/18	9.1	2	0.75	3.5	10	10	10	6
NISC/BL/19	7.3	3.6	0.6	3.5	10	10	6	6
NISC/BL/20	7.3	4.8	0.57	3	8	6	6	10
NISC/BL/21	5	2	0.63	2	7	8	10	10
NISC/BL/22	5	2	0.60	1.5	8	8	10	10
NISC/BL/23	4.5	3	0.52	1	4	10	10	10
NISC/BL/24	8.5	6.0	0.52	2	9	10	10	10
NISC/BL/25	8	6.0	0.43	2	6	10	6	6
NISC/BL/26	8	6.0	0.43	1.5	8	6	6	10
NISC/BL/27	6	2.5	0.53	1.5	4	8	10	10
NISC/BL/28	6.5	2.5	0.69	2	7	8	10	10
NISC/BL/29	5.5	2	0.65	1.5	6	8	10	10
NISC/BL/30	5	2.5	0.63	1.5	5	8	10	10
NISC/BL/31	6	1.5	0.61	1.5	8	8	10	10
NISC/BL/32	5.5	1.3	0.66	1.5	4	8	10	10
NISC/BL/33	6	2	0.59	2	7	8	10	10
NISC/BL/34	5	2	0.48	2	8	8	10	10
NISC/BL/35	4	1.5	0.63	1.5	10	8	10	10
NISC/BL/36	4	1	0.67	1.5	12	8	10	10
KHUD/BL/1	5	2.5	0.64	2.5	7	8	10	10
KHUD/BL/2	5.5	4	0.75	3	12	10	10	10
KHUD/BL/3	7	5	0.67	3	8	10	10	10
KHUD/BL/4	7	4	0.65	4	10	10	10	10
KHUD/BL/5	8	4	0.68	3	6	10	10	10
KHUD/BL/7	8	6.7	0.65	3	6	8	10	10
KHUD/BL/8	7	5	0.58	3	5	10	10	10
KHUD/BL/9	8	4.5	0.67	4	7	10	10	10
KHUD/BL/10	7.5	5	0.69	3.5	8	8	10	10
KHUD/BL/11	7	5	0.61	3	8	10	10	10
KHUD/BL/12	8	5	0.59	3	6	10	10	10
KHUD/BL/13	7	3	0.74	4	13	10	10	10
KHUD/BL/14	6	4	0.68	5.5	12	8	10	10
KHUD/BL/15	6	3	0.64	5	9	8	10	10
KHUD/BL/16	7	4	0.51	3	5	10	10	10

KHUD/BL/17	6	4	0.71	4	8	8	10	10
KHUD/BL/18	8	6	0.62	4	6	10	10	10
KHUD/BL/19	6.5	5	0.54	3.5	10	10	10	10
KHUD/BL/20	6.5	4.5	0.67	3	7	8	10	10
KHUD/BL/21	7	5	0.56	4	8	10	10	10
KHUD/BL/22	6	3	0.5	3	5	10	10	10
KHUD/BL/24	7.5	4	0.69	6	10	8	10	10

**bold trees are already existing candidate plus trees*

After providing score and weightage to each trait (Annexure-II, Table II.106, II.107 & II.108), the total weighted scores are as follow:

Table A.2.L.2.4.2 Total Weightage Score of Candidate Plus Trees of *Buchanania cochinchinensis* in Purulia Division

Tree No.	Total Weightage Score
KHUD/BL/1	72
KHUD/BL/2	74
KHUD/BL/3	72
KHUD/BL/4	64.5
KHUD/BL/5	65
KHUD/BL/6	81
KHUD/BL/7	64
KHUD/BL/8	66.5
KHUD/BL/9	70.5
KHUD/BL/10	67
KHUD/BL/11	69.5
KHUD/BL/12	73
KHUD/BL/13	77
KHUD/BL/14	70.5
KHUD/BL/15	70.5
KHUD/BL/16	70.5
KHUD/BL/17	85
KHUD/BL/18	71
KHUD/BL/19	78
KHUD/BL/20	78.5
KHUD/BL/21	84
KHUD/BL/22	70
KHUD/BL/23	85
KHUD/BL/24	86
NISC/BL/1	75
NISC/BL/2	79.5
NISC/BL/3	85
NISC/BL/4	72.5

NISC/BL/5	82
NISC/BL/6	69.5
NISC/BL/7	71.5
NISC/BL/8	74
NISC/BL/9	73
NISC/BL/10	82.5
NISC/BL/11	75.5
NISC/BL/12	69.5
NISC/BL/13	71.5
NISC/BL/14	89.5
NISC/BL/15	74.5
NISC/BL/16	76
NISC/BL/17	77.5
NISC/BL/18	82
NISC/BL/19	77.5
NISC/BL/20	74.5
NISC/BL/21	73
NISC/BL/22	73
NISC/BL/23	70.5
NISC/BL/24	76.5
NISC/BL/25	68.5
NISC/BL/26	70.5
NISC/BL/27	69.5
NISC/BL/28	75.5
NISC/BL/29	74
NISC/BL/30	70.5
NISC/BL/31	73
NISC/BL/35	71
NISC/BL/33	73
NISC/BL/34	71
NISC/BL/35	75
NISC/BL/36	76
KHUD/BL/1	76
KHUD/BL/2	82
KHUD/BL/3	79.5
KHUD/BL/4	84.5
KHUD/BL/5	79
KHUD/BL/6	79
KHUD/BL/7	75.5
KHUD/BL/8	82
KHUD/BL/9	81
KHUD/BL/10	78.5
KHUD/BL/11	78.5
KHUD/BL/12	85.5
KHUD/BL/13	87.5

KHUD/BL/14	81
KHUD/BL/15	74
KHUD/BL/16	79.5
KHUD/BL/17	81.5
KHUD/BL/18	83
KHUD/BL/19	78.5
KHUD/BL/20	80
KHUD/BL/21	73
KHUD/BL/22	88.5
KHUD/BL/23	72
KHUD/BL/24	74
Average	**75.85**

In Khudidi location (Fig. A.2.L.2.4.1), trees are located within 2 hectare area, hence 2 trees will be marked as plus trees (**KHUD/BL/22** and **KHUD/BL/13**) and KHUD/BL/24, **KHUD/BL/12**, KHUD/BL/17, KHUD/BL/23, **KHUD/BL/4**, KHUD/BL/21, **KHUD/BL/18**, **KHUD/BL/2**, **KHUD/BL/8**, **KHUD/BL/17**, KHUD/BL/6 and **KHUD/BL/9**, will be retained as candidate plus trees. Remaining trees in the location will be discarded from the list.

At Nischintpur location, all the trees are located within 1 hectare area (Fig. A.2.L.2.4.2), hence only 1 tree will be marked as plus tree (NISC/BL/14) and will be marked as plus trees and NISC/BL/3, NISC/BL/10, NISC/BL/5, NISC/BL/18, NISC/BL/2 and NISC/BL/17 will be retained as candidate plus trees. Remaining trees will be discarded.

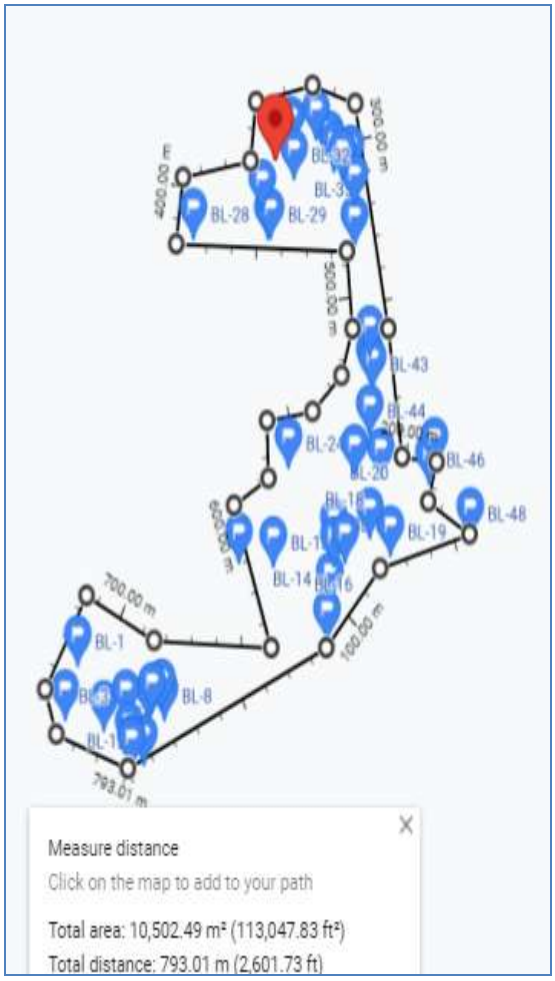


Fig. A.2.L.2.4.1 Area and Location of Different Trees of *Buchanania cochinchinensis* in Khudidi Location of Purulia Division

Fig. A.2.L.2.4.2 Area and Location of Different Trees of *Buchanania cochinchinensis* in Nischintpur Location of Purulia Division

A.2.L.2.5 *Lagerstroemia parviflora*

4 phenotypically good trees were observed in the division (table A.2.L.2.5.1) and all will be retained as candidate plus trees.

Table A.2.L.2.5.1 Growth Data of Candidate Plus Trees of *Lagerstroemia parviflora* in Purulia Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ECHA/LP/1	7	3	0.7	5	6	8	10	10
ECHA/LP/2	5.5	3.5	0.77	4.5	6	8	10	10
ECHA/LP/3	5	2.5	0.65	3.5	3	8	10	10
ECHA/LP/4	8	3	0.81	5.5	6	8	10	10

A.2.L.2.6 *Madhuca latifolia*

9 phenotypically good trees were found in the division, growth data of which is as follow:

Table A.2. L.2.6.1 Growth Data of Candidate Plus Trees of *Madhuca latifolia* in Purulia Division

Tree No.	**Quantitative Traits**					**Qualitative Traits**		
	Total height (m)	**Clear Bole Height (m)**	**Girth at Breast Height (m)**	**Crown Width (m)**	**Number of Branches**	**Stem Straightness**	**Stem Form**	**Infection**
KHUD/ML/1	7.5	1.7	1.74	9.5	8	10	7	10
KHUD/ML/2	8	2.5	1.18	3.5	6	10	7	10
KHUD/ML/3	8	6	1.55	8	7	7	7	10
KHUD/ML/4	7	2	1.1	4.6	12	10	10	10
KHUD/ML/5	7.5	1.75	1.25	4.9	12	10	10	10
KHUD/ML/6	9	2.5	1.4	6.2	6	10	7	10
KHUD/ML/7	6.5	2	1.5	8.5	8	7	7	10
KHUD/ML/8	8	2	1.4	8	5	7	10	10
KHUD/ML/9	7.5	1.75	1.3	6.7	5	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.109, II.110 & II.111) and finally the total weightage score was computed as below:

Table A.2.L.2.6.2 Total Weightage Score of Candidate Plus Trees of *Madhuca latifolia* in Purulia Division

Tree No.	Total Weightage Score
KHUD/ML/1	86
KHUD/ML/2	71
KHUD/ML/3	82.5
KHUD/ML/4	81
KHUD/ML/5	83
KHUD/ML/6	81
KHUD/ML/7	85.5
KHUD/ML/8	76.5
KHUD/ML/9	74.5
Mean	**80.11**

As per the Fig. A.2.L.2.6.1, all the trees are within 1 hectare area, hence 1 tree will be marked as plus tree (KHUD/ML/1) and remaining trees will be retained as candidate plus trees except KHUD/ML/2 and KHUD/ML/9.

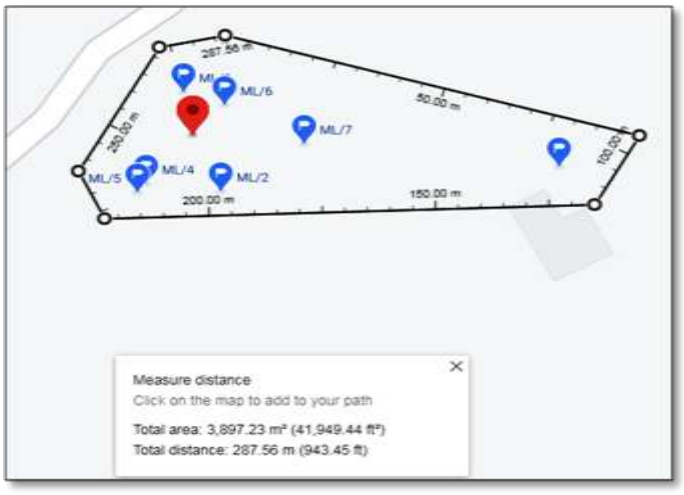


Fig. A.2.L.2.6.1 Area and Location of Different Trees of *Madhuca latifolia* in Purulia Division

A.2.L.2.7 *Soymida febrifuga*

71 good trees were there in the division after rejection of 11 trees. Growth data of same is as follow:

Table A.2.L.2.7.1 Growth Data of Candidate Plus Trees of *Soymida febrifuga* in Purulia Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUD/SF/1	7.5	2	0.6	3	7	6	6	10
KHUD/SF/2	7	1	0.8	2.5	6	6	6	10
KHUD/SF/3	12	1.5	1	3.5	7	10	10	8
KHUD/SF/4	8	1.8	0.8	2.5	4	10	6	8
KHUD/SF/5	8	2	0.7	2.5	8	6	6	10
KHUD/SF/6	7	1	0.6	1.75	8	6	6	10
KHUD/SF/7	8	1	0.7	1.25	4	10	10	8
KHUD/SF/8	8	4	0.6	1	4	10	6	8
KHUD/SF/9	9	2	0.8	2.5	5	6	6	10
KHUD/SF/10	7.8	1.5	0.7	1.5	5	6	6	10
KHUD/SF/11	5	1.3	0.8	1.8	5	10	10	8
KHUD/SF/12	7	1.9	0.6	1	5	6	6	10
KHUD/SF/13	5.5	2	0.7	1.75	3	6	8	10
KHUD/SF/14	7.2	1.25	0.7	1.5	5	10	10	8
KHUD/SF/15	10.6	4.5	0.6	2.5	8	6	8	10
KHUD/SF/16	7	3	0.5	1.5	5	8	8	10
KHUD/SF/17	12.9	3	0.6	1.5	2	10	10	8
KHUD/SF/18	7.6	2.5	0.6	1.5	6	10	8	8
KHUD/SF/19	7.6	1	0.6	1.5	7	8	8	10
KHUD/SF/20	7.6	2	0.9	1	8	6	6	10
KHUD/SF/21	8.2	2	0.9	1	5	10	10	8
KHUD/SF/22	6.0	1	0.9	1.5	5	10	8	8
KHUD/SF/23	8.2	1.5	0.7	1.5	10	6	8	10
KHUD/SF/24	7.3	1.2	0.8	2.5	4	6	8	10
KHUD/SF/25	7.6	2	0.7	2.5	4	8	6	10
KHUD/SF/26	3.0	1	0.4	1	5	6	6	10
KHUD/SF/27	9.1	2	0.7	2.5	6	10	10	8
KHUD/SF/28	6.0	2	0.6	2	7	10	6	8
KHUD/SF/29	6.7	2	0.7	2.5	7	6	8	10

KHUD/SF/30	5.1	1	0.5	1.5	12	6	8	10
KHUD/SF/31	6.7	1	0.8	2.5	12	10	10	8
KHUD/SF/32	9.1	2.5	0.6	2.5	10	10	6	8
KHUD/SF/33	7.6	2.4	0.5	2.5	12	6	6	10
KHUD/SF/34	6.0	3.0	0.4	2.5	13	6	6	10
KHUD/SF/35	12.1	2.4	1.1	3	27	6	6	10
KHUD/SF/36	7.6	3.0	0.5	3	12	6	8	10
KHUD/SF/38	9.1	3.6	0.6	1.5	5	6	8	10
KHUD/SF/43	4	2	0.53	1.5	6	8	10	10
KHUD/SF/44	8	4	0.83	4	7	8	10	10
KHUD/SF/45	7	2.5	0.68	5	4	8	10	10
KHUD/SF/46	7.5	3	0.58	4.5	5	8	10	10
KHUD/SF/47	6	1.5	0.77	4	9	8	10	10
KHUD/SF/48	4.5	2	0.43	2.5	7	8	10	10
KHUD/SF/49	7	2	1.42	3.5	4	6	8	10
KHUD/SF/50	8	2.5	0.78	6.5	8	8	10	10
KHUD/SF/51	8	2.5	0.90	4	6	8	10	10
KHUD/SF/53	6	2.5	0.77	3.5	4	8	10	10
KHUD/SF/54	10.5	3.5	1.05	6	8	8	10	10
KHUD/SF/55	8	2	1.60	7	9	8	10	10
KHUD/SF/56	6	2	0.80	5	8	8	10	10
KHUD/SF/57	5	3	0.66	3	4	10	10	10
KHUD/SF/58	5.5	1.5	0.65	2	5	8	10	10
KHUD/SF/59	7	3	0.87	3	6	10	10	10
KHUD/SF/60	6	3	0.68	3.5	9	8	10	10
KHUD/SF/62	9	2	1.30	3	8	8	10	10
KHUD/SF/63	7	3.5	0.73	3	6	8	10	10
KHUD/SF/65	8	4	0.85	2.5	3	10	10	10
KHUD/SF/66	12	4.5	1.07	6	13	8	10	10
KHUD/SF/67	7	3	0.72	2	4	8	10	10
KHUD/SF/69	9	1	0.71	2	6	8	10	10
KHUD/SF/70	7.5	3.5	0.63	3	5	8	10	10
KHUD/SF/71	8	2.5	0.73	2.5	12	8	10	10
KHUD/SF/73	7	2.5	0.84	2	3	8	10	10
KHUD/SF/74	6.5	3	0.53	2.5	9	8	10	10
KHUD/SF/75	4.5	2	0.42	1.5	8	8	10	10
KHUD/SF/76	7	3.5	0.79	3	5	8	10	10
KHUD/SF/77	7	3	0.68	3	4	10	10	10
KHUD/SF/78	7	2	1.01	3	4	8	10	10
KHUD/SF/79	4.5	1	0.44	2	6	8	10	10
KHUD/SF/80	5	0.5	0.47	1	5	8	10	10
KHUD/SF/81	6.5	2	0.71	2	3	8	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial

use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.112, II.113 & II.114) and finally the total weightage score was computed as below:

Table A.2.L.2.7.2 Total Weightage Score of Candidate Plus Trees of *Soymida febrifuga* in Purulia Division

Tree No.	Total Weightage Score
KHUD/SF/1	71.5
KHUD/SF/2	71.25
KHUD/SF/3	86.75
KHUD/SF/4	75.25
KHUD/SF/5	73.5
KHUD/SF/6	69.25
KHUD/SF/7	81
KHUD/SF/8	79
KHUD/SF/9	74.75
KHUD/SF/10	71
KHUD/SF/11	79.5
KHUD/SF/12	71
KHUD/SF/13	74.5
KHUD/SF/14	81
KHUD/SF/15	80
KHUD/SF/16	79
KHUD/SF/17	86
KHUD/SF/18	78
KHUD/SF/19	75.25
KHUD/SF/20	75.25
KHUD/SF/21	85
KHUD/SF/22	78.5
KHUD/SF/23	74.25
KHUD/SF/24	74.25
KHUD/SF/25	76.25
KHUD/SF/26	66
KHUD/SF/27	84.75
KHUD/SF/28	74
KHUD/SF/29	75
KHUD/SF/30	70.75
KHUD/SF/31	80
KHUD/SF/32	77
KHUD/SF/33	71.5
KHUD/SF/34	72.25
KHUD/SF/35	79.25

KHUD/SF/36	76.5
KHUD/SF/38	77.5
KHUD/SF/43	77
KHUD/SF/44	86.5
KHUD/SF/45	80.75
KHUD/SF/46	82.75
KHUD/SF/47	79.25
KHUD/SF/48	77.5
KHUD/SF/49	81
KHUD/SF/50	83.25
KHUD/SF/51	84.75
KHUD/SF/53	81
KHUD/SF/54	88.75
KHUD/SF/55	89.25
KHUD/SF/56	81.5
KHUD/SF/57	85.75
KHUD/SF/58	78.75
KHUD/SF/59	87.75
KHUD/SF/60	83.25
KHUD/SF/62	88
KHUD/SF/63	84.25
KHUD/SF/65	89.25
KHUD/SF/66	92.5
KHUD/SF/67	84.25
KHUD/SF/69	81.75
KHUD/SF/70	82.25
KHUD/SF/71	80.5
KHUD/SF/73	82.25
KHUD/SF/74	81
KHUD/SF/75	77.25
KHUD/SF/76	84.25
KHUD/SF/77	87.25
KHUD/SF/78	84.25
KHUD/SF/79	75.25
KHUD/SF/80	74.5
KHUD/SF/81	80.75
Average	**79.49**

All the trees are within an area of 6 hectare (Fig. A.2.L.2.7.1), hence 6 trees will be marked as plus trees (KHUD/SF/66, KHUD/SF/55, KHUD/SF/65, KHUD/SF/54 KHUD/SF/62 and KHUD/SF/59) and 36 trees as candidate plus trees as listed in table below:

Table A.2.L.2.7.3 Retained Candidate Plus Trees of

Soymida febrifuga in Purulia Division

KHUD/SF/77	87.25
KHUD/SF/3	86.75
KHUD/SF/44	86.5
KHUD/SF/17	86
KHUD/SF/57	85.75
KHUD/SF/21	85
KHUD/SF/27	84.75
KHUD/SF/51	84.75
KHUD/SF/63	84.25
KHUD/SF/67	84.25
KHUD/SF/76	84.25
KHUD/SF/78	84.25
KHUD/SF/50	83.25
KHUD/SF/60	83.25
KHUD/SF/46	82.75
KHUD/SF/70	82.25
KHUD/SF/73	82.25
KHUD/SF/69	81.75
KHUD/SF/56	81.5
KHUD/SF/7	81
KHUD/SF/14	81
KHUD/SF/49	81
KHUD/SF/53	81
KHUD/SF/74	81
KHUD/SF/45	80.75
KHUD/SF/81	80.75
KHUD/SF/71	80.5
KHUD/SF/15	80
KHUD/SF/31	80
KHUD/SF/11	79.5
KHUD/SF/35	79.25
KHUD/SF/47	79.25
KHUD/SF/8	79
KHUD/SF/16	79
KHUD/SF/58	78.75

KHUD/SF/22	78.5

Remaining trees will be discarded from the list.

Fig. A.2.L.2.7.1 Area and Location of Different Trees of *Soymida febrifuga* in Purulia Division

A.2.L.2.8 *Syzygium cumini*

After rejection, 3 candidate plus trees of the species were there in the division. All the three trees were phenotypically superior (Table A.2.L.2.8.1), hence will be retained as candidate plus trees.

Table A.2.L.2.8.1 Growth data of Candidate Plus Trees and Seed Trees of *Syzygium cumini* in Purulia Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BANS/SC/2	12.80	3.96	1.80	5.5	19	8	8	10
BANS/SC/4	18	4	2.03	4	10	10	10	10
CHAU/SC/1	9.14	1.00	2.10	8.2	18	8	8	10

A.2.L.2.9 *Terminalia arjuna*

65 trees were there in the division after rejection of 2 trees. All the trees were phenotypically good (Table A.2.L.2.9.1) and will be retained as candidate plus trees.

Table A.2.L.2.9.1 Growth Data of Candidate Plus Trees of *Terminalia arjuna* in Purulia Division after Rejection

Tree No.	Quantitative Traits						Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark thickness (mm)	Stem Straightness	Stem Form	Infection
BANS/TA/1	5	3	1.6	8	6	7	8	10	10
BANS/TA/2	10	5	0.9	6.5	12	44	8	10	10
BANS/TA/3	6	20	1.35	7	6	6	8	10	10
BANS/TA/4	13	5	1.18	8.5	11	62	8	10	10
BANS/TA/5	12	5	1.19	8	12	51	8	10	10
BANS/TA/8	10	5.5	0.86	6.5	7	35	8	10	10

BANS/TA/9	12	8	0.86	5.5	9	36	8	10	10
BANS/TA/10	10	6.5	1.01	7.5	13	46	8	10	10
BANS/TA/11	4	18	1.25	6.5	8	10	8	10	10
BANS/TA/12	12	6	1.02	8	11	49	8	10	10
BANS/TA/13	11	5.5	1.15	13	8	60	8	10	10
BANS/TA/14	11	5	0.93	8	11	38	8	10	10
BANS/TA/15	12.5	7	0.99	7	8	46	8	10	10
BANS/TA/16	10	5	0.79	6.5	5	40	8	10	10
BANS/TA/17	14	3.5	1.07	7	11	51	8	10	10
BANS/TA/18	13	3.5	1	10	8	49	8	10	10
BANS/TA/19	13.5	5	0.89	7.5	7	40	8	10	10
BANS/TA/20	14	5	0.83	6.5	5	32	8	10	10
BANS/TA/21	14	7	0.96	6	7	40	8	10	10
BANS/TA/22	14	6	1.11	5	11	80	8	10	10
BANS/TA/23	16	8	1.51	10	11	50	8	10	10
BANS/TA/24	15	5	1.05	8	8	50	8	10	10
BANS/TA/25	13	6	1.15	6	6	60	8	10	10
BANS/TA/26	14	5.5	1.15	7	8	50	8	10	10
BANS/TA/27	15	4.5	1.13	6	9	50	8	10	10
BANS/TA/28	14	5	1.02	6	11	70	8	10	10
BANS/TA/29	14	4	1.18	5	5	50	8	10	10
BANS/TA/30	14	4	1.12	10.5	13	55	8	10	10
BANS/TA/31	13	3.5	0.99	7.5	10	49	8	10	10
BANS/TA/32	5.5	22	1.5	8	9	9	10	8	10
BANS/TA/33	14	3.5	1.49	13.5	11	30	8	10	10
BANS/TA/34	14	3.5	1.4	5	9	40	8	10	10
BANS/TA/35	13	3.5	1.35	7	8	100	8	10	10
BANS/TA/36	13	5	1.35	7	8	100	8	10	10
BANS/TA/37	14	10	1.2	5	7	50	8	10	10
BANS/TA/38	5	15	1.8	7.5	12	8	10	8	10
BANS/TA/39	13	6	1.43	5	8	80	8	10	10
BANS/TA/40	12	9	1.32	6	8	50	8	10	10
BANS/TA/41	13	6.5	1.18	5	11	60	8	10	10
BANS/TA/42	14	4	1.5	4	12	85	8	10	10
BANS/TA/43	13	5	0.77	4	5	40	8	10	10
BANS/TA/44	13	4	0.85	4	6	35	8	10	10
BANS/TA/45	13	8	0.6	4	5	30	8	10	10
BANS/TA/46	12	7	0.7	6	8	40	8	10	10
BANS/TA/47	14	4.5	1.45	8	11	60	8	10	10
BANS/TA/48	8	3	1.02	8.5	12	48	8	10	10
BANS/TA/49	12	6	1.09	8	10	52	8	10	10
BANS/TA/50	8	4.5	0.83	5.5	7	32	8	10	10
BANS/TA/51	8.5	5	0.94	6	6	38	8	10	10
BANS/TA/52	7.5	3	0.95	5	7	40	8	10	10
BANS/TA/53	14	5	1.29	10	7	70	8	10	10

BANS/TA/54	9	4	0.84	6.5	6	35	8	10	10
BANS/TA/55	11	4.5	0.97	7.5	11	44	8	10	10
BANS/TA/56	12	8	0.86	6	7	36	8	10	10
BANS/TA/57	8	3	0.84	5.5	7	46	8	10	10
BANS/TA/58	8	3	0.84	5.5	6	42	8	10	10
BANS/TA/59	11	5	0.92	5	12	41	8	10	10
BANS/TA/60	10	7	0.87	6	6	37	8	10	10
BANS/TA/61	8	5.5	0.85	5	5	35	8	10	10
BANS/TA/62	8	4	8.83	5	5	33	8	10	10
BANS/TA/63	9	6	0.79	6.5	5	31	8	10	10
BANS/TA/64	11	5	1.09	7	6	55	8	10	10
BANS/TA/65	10	8	0.79	4.5	5	32	8	10	10
BANS/TA/66	10	4	0.92	5	7	42	8	10	10
BANS/TA/67	8	5	0.83	5.5	8	32	8	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.115, II.116 & II.117) and finally the total weightage score was computed as below:

Table A.2.L.2.9.2 Weightage Score for Each Trait of Plus Trees of *Terminalia arjuna* in Purulia Division

Tree No.	Weightage Score
BANS/TA/1	76.75
BANS/TA/2	79.75
BANS/TA/3	81.00
BANS/TA/4	82.75
BANS/TA/5	83.00
BANS/TA/8	77.00
BANS/TA/9	80.00
BANS/TA/10	79.75
BANS/TA/11	78.25
BANS/TA/12	81.25

BANS/TA/13	81.50
BANS/TA/14	77.75
BANS/TA/15	82.25
BANS/TA/16	75.25
BANS/TA/17	82.50
BANS/TA/18	81.25
BANS/TA/19	78.50
BANS/TA/20	78.25
BANS/TA/21	81.50
BANS/TA/22	85.75
BANS/TA/23	87.50
BANS/TA/24	82.50
BANS/TA/25	82.00
BANS/TA/26	83.75
BANS/TA/27	83.75
BANS/TA/28	84.50
BANS/TA/29	83.00
BANS/TA/30	84.75
BANS/TA/31	81.00
BANS/TA/32	81.50
BANS/TA/33	84.25
BANS/TA/34	83.00
BANS/TA/35	87.75
BANS/TA/36	87.75
BANS/TA/37	84.75

BANS/TA/38	81.75
BANS/TA/39	85.50
BANS/TA/40	83.75
BANS/TA/41	82.25
BANS/TA/42	89.50
BANS/TA/43	76.50
BANS/TA/44	78.25
BANS/TA/45	78.00
BANS/TA/46	78.75
BANS/TA/47	85.75
BANS/TA/48	78.50
BANS/TA/49	81.25
BANS/TA/50	73.75
BANS/TA/51	75.50
BANS/TA/52	75.25
BANS/TA/53	86.00
BANS/TA/54	75.50
BANS/TA/55	79.50
BANS/TA/56	80.00
BANS/TA/57	75.75
BANS/TA/58	73.75
BANS/TA/59	77.50
BANS/TA/60	78.50
BANS/TA/61	75.00
BANS/TA/62	73.50

BANS/TA/63	75.25
BANS/TA/64	77.00
BANS/TA/65	76.50
BANS/TA/66	76.75
BANS/TA/67	74.00
Average	**80.38**

62 trees are within 1 hectare area and 3 trees i.e. BANS/TA/10, BANS/TA/14 and BANS/TA/54 are far from the cluster. Hence BANS/TA/42 will be marked as plus tree and BANS/TA/35, BANS/TA/36, BANS/TA/23, BANS/TA/53, BANS/TA/22 and BANS/TA/47 will be retained as candidate plus trees including BANS/TA/10, BANS/TA/14 and BANS/TA/54. Remaining trees will be deleted from the list.

Fig. A.2.L.2.9.1 Area and Location of Different Trees of *Terminalia arjuna* in Purulia Division

A.2.L.2.10 *Terminalia bellirica*

After rejection, 10 phenotypically god trees were there in the division and same will be retained as candidate plus trees (Table A.2.L.2.10.1).

Table A.2.L.2.10.1 Growth Data of Candidate Plus Trees of *Terminalia bellirica* in Purulia Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHAU/TB/1	12.19	3.04	9	7	13	10	6	10
CHAU/TB/3	12.19	15	6.5	4	5	6	6	10
CHAU/TB/6	13.71	7.62	6	1.5	6	6	6	10
CHAU/TB/7	13.71	3.65	10	3.5	12	10	10	10
CHAU/TB/8	8	4.5	0.85	6	10	8	10	10
CHAU/TB/9	10	5	0.76	6	8	8	10	10
CHAU/TB/10	8	4	0.78	6.5	4	8	10	10
CHAU/TB/11	8	5	0.64	4	5	8	10	10
CHAU/TB/12	14	5	1.72	8.5	13	8	10	10
CHAU/TB/13	8	4.5	0.53	6	5	8	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-II, Table II.118, II.119 & II.120) and finally the total weightage score was computed as below:

Table A.2.L.2.10.1 Total Weightage Score of trees of *Terminalia bellirica* in Purulia Division after Rejection

Tree No.	Total Weightage Score
CHAU/TB/1	84.5
CHAU/TB/3	83
CHAU/TB/6	76.25
CHAU/TB/7	91.25
CHAU/TB/8	74.5
CHAU/TB/9	75.75

CHAU/TB/10	74
CHAU/TB/11	73.5
CHAU/TB/12	81
CHAU/TB/13	73.75
Average	**78.75**

All the trees are located within 1 hectare area, hence only one tree (CHAU/TB/7) will be marked as plus tree and remaining as candidate plus trees except CHAU/TB/11, CHAU/TB/13 and CHAU/TB/10.

Fig. A.2.L.2.10.1 Area and Location of Different Trees of *Terminalia bellirica* in Purulia Division

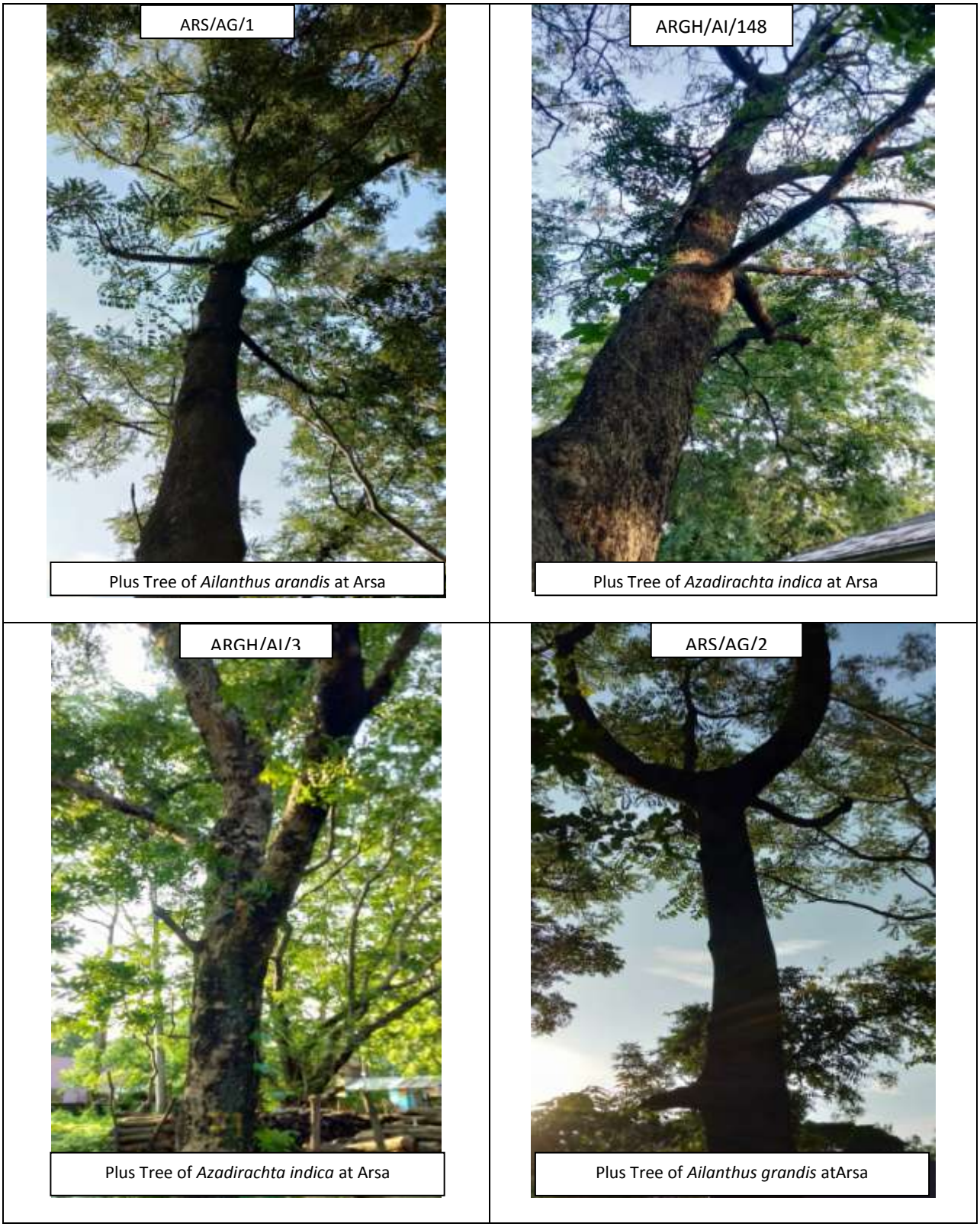


Fig. A.2.F.1 Glimpse of Existing Candidate Plus Trees of Purulia Division

A.3 Evaluation of Existing Plus trees, and Candidate Plus Trees in Silviculture Hills

The existing trees were there in seven (7) division of the circle, named as follow:

a. Darjeeling GTA
b. Darjeeling Hill
c. Darjeeling Wild Life
d. Kalimpong
e. Kurseong

The details of selected trees along with its evaluation are discussed as follow:

A.3.A Darjeeling GTA

Only plus trees were there in the division**.** 13 trees of 7 species were there in the division (Table A.3.A.1) and all were traceable.

Table A.3.A.1 Abstract of Plus Trees in Darjeeling GTA Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1	*Betula alnoides*	2	0	2	0	2	2
2	*Bombax ceiba*	1	0	1	0	1	1
3.	*Bucklandia populnea*	4	0	4	0	4	4
4.	*Cupressus cashmeriana*	2	0	2	0	2	2
5	*Paulownia fortunei*	1	0	1	0	1	1
6	*Schima wallichii*	1	0	1	0	1	1
7	*Terminalia myriocarpa*	2	0	2	0	2	2
Total		**13**	**0**	**13**	**0**	**13**	**13**

A.3.A.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

3 trees of 2 species were rejected (A.3.A.1.1) directly on the basis of field observations. In all the rejected trees, the upper part was found damaged.

Table A.3.A.1.1 Abstract of Rejected Darjeeling GTA in Darjeeling GTA Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Betula alnoides*	1	MPLOT/BA/11	M-plot	Upper part damaged
2.	*Terminalia myriocarpa*	2	MAL/TM/15	M-plot	
			MAL/TM/16	M-plot	

A.3.A.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.3.A.2.1 *Betula alnoides*

Only 1 phenotypically superior tree (Table A.3.A.2.1.1) remained there after rejection of damaged one. Same will be retained as plus tree.

Table A.3.A.2.1.1 Growth Data of Plus Trees of *Betula alnoides* in Darjeeling GTA Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MPLOT/BA/10	19	13	1.3	9.4	4	10	7	10

A.3.A.2.2 *Bombax Ceiba*

Only 1 plus tree was there as per the list provided and was phenotypically good tree (Table A.3.A.2.2.1). The tree will be retained as plus tree in the division.

Table 3.A.2.2.1 Growth Data of Plus Trees of *Bombax Ceiba* in Darjeeling GTA Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CPLOT/BC/1	25	10	3.05	13	8	7	7	10

A.3.A.2.3 *Bucklandia populnea*

4 plus trees were observed in the division and all were phenotypically good trees. Growth data of same is as follow:

Table A.3.A.2.3.1 Growth Data of Plus Trees of *Bucklandia Populnea* in Darjeeling GTA Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MPLOT/BP/9	21	17	1.4	9	15	10	10	10
MPLOT/BP/5	22	15	1.54	5.05	17	10	10	10
MPLOT/BP/10	23	14	1.6	6.7	19	10	10	10
MPLOT/BP/8	22	9	1.8	5.85	22	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.1, III.2 & III.3) and finally the total weightage score was computed as below:

Table A.3.A.2.3.2 Total Weightage Score of Plus Trees of *Bucklandia Populnea* in Darjeeling GTA Division

Tree No.	Total Weightage Score
MPLOT/BP/9	85.25
MPLOT/BP/5	87.5
MPLOT/BP/10	93.25
MPLOT/BP/8	79.25

All the trees are very close to each other (A.3.A.2.3.1), hence only 1 tree will be retained as plus tree (MPLOT/BP/10) and remaining will be marked as candidate plus trees.

Fig. A.3.A.2.3.1 Area and Location of Different Trees of of *Bucklandia Populnea* in Darjeeling GTA Division

A.3.A.2.4 *Cupressus cashmeriana*

2 healthy plus trees were found in the division. Growth data of the trees is presented in table A.3.A.2.4.1.

Table A.3.A.2.4.1 Growth Data of Plus Trees of *Cupressus cashmeriana* Darjeeling GTA Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MPLOT/CC/4	22	18	2.4	8	13	7	7	10
MPLOT/CC/5	22	19	2.3	4.5	7	7	7	10

After giving scores and weightage to each trait (Annexure-III, Table III.4, III.5 & III.6), total weightage of the individual tree is as follow:

Table A.3.A.2.4.2 Total Weightage Score of Plus Trees of *Cupressus Cashmeriana* in Darjeeling GTA Division

Tree No.	Total Weightage Score
MPLOT/CC/4	89.0
MPLOT/CC/5	88.5

Both the trees are very near to each other, hence only 1 tree will be retained as plus tree (MPLOT/CC/4) and remaining will be marked as candidate plus tree.

Fig. A.3.A.2.4.1 Area and Location of Different Trees of *Cupressus Cashmeriana* in Darjeeling GTA Division

A.3.A.2.5. *Paulownia fortune*

Only 1 plus tree was there in the division and phenotypically was superior (Table 3.A.2.5.1). The tree will be retained as plus tree.

Table A.3.A.2.5.1 Growth Data of Plus Tree of *Paulownia fortune* Darjeeling GTA Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MPLO/PF/1	18	7	1.9	6.5	19	7	7	10

A.3.A.2.6 *Schima wallichii*

Only 1 plus tree was there in the division and phenotypically was superior (Table A.3.A.2.6.1). The tree will be retained as plus tree.

Table A.3.A.2.6.1 Growth Data of Plus Trees of *Schima Wallichii* Darjeeling GTA Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MPLOT/SW/15	22	9	2.35	11	14	7	7	10

A.3.B Darjeeling Division

27 plus trees of 10 species were reported in the field out of 46 trees of 16 species in the division (Table A.3.B.1). Likewise, candidate plus trees only were found of *Machilus edulis* (Table A.3.B.2).

TableA.3.B.1 Abstract of Plus Trees in Darjeeling Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Abies densa*	2	0	0	2	2	0
2.	*Acer hookeri*	1	0	0	1	1	0
3.	*Acer thomsonii*	1	0	0	1	1	0
4.	*Alnus nepalensis*	2	0	2	0	2	0
5.	*Beilschmiedia gammieana*	3	0	2	1	3	0
6.	*Castanopsis hystrix*	3	0	1	2	3	0
7.	*Cupressus cashmeriana*	3	0	0	3	3	0
8.	*Elaeocarpus sikkimensis*	2	0	1	1	2	0
9.	*Engelhardtia spicata*	3	0	3	0	3	0
10.	*Macaranga pustulata*	3	0	3	0	3	0
11.	*Machilus edulis*	6	0	5	1	6	0
12.	*Magnolia campbellii*	1	0	0	1	1	0
13.	*Michelia cathcartii*	2	0	1	1	2	0
14.	*Nyssa javanica*	3	0	3	0	3	0
15.	*Quercus lamellosa*	5	0	0	5	5	0
16.	*Taxus wallichiana*	6	0	6	0	6	0
Total		**46**	**0**	**27**	**19**	**46**	**0**

Table A.3.B.2 Abstract of Candidate Plus Trees in Darjeeling Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Cupressus cashmeriana*	3	0	0	3	3	0
2.	*Engelhardtia spicata*	1	0	0	1	1	0
3.	*Machilus edulis*	10	0	8	2	10	0
4.	*Melia composite*	9	0	0	9	9	0
5.	*Machilus lanuginose*	3	0	0	3	3	0
6.	*Schima wallichii*	4	0	0	4	4	0
Total		**30**	**0**	**8**	**22**	**30**	**0**

A.3.B.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

Only 1 tree was rejected in the division as it was damaged from the top (Table A.3.B.1.1).

Table A.3.B.1.1 Abstract of Rejected Plus Trees in Darjeeling Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Macaranga pustulata*	1	MP 3	Lopchu	The Tree was damaged from top

A.3.B.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.3.B.2.1 *Alnus Nepalensis*

2 plus trees were observed in the division and both were phenotypically good. Growth data of the same is as follow:

Table A.3.B.2.1.1 Growth Data of Plus Trees of *Alnus Nepalensis* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
AN 1	28	19	1.75	12	12	10	10	10
AN 2	32	24	1.85	8	12	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.3.A.1.1.

A.3.B.2.2 *Beilschmiedia gammieana*

2 phenotypically superior plus tree were there in the division. Growth data of the trees is presented in the table

Table A.3.B.2.2.1 Growth Data of Plus Trees of *Beilschmiedia gammieana* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BG 1	24	12	1.65	13	8	7	7	10
BG 2	29	21	1.3	7	9	7	7	10

For further screening, scoring and weightage was given to each trait (Annexure-III, Table III.7, III.8 & III.9), and total weightage score is presented in table 3.B.2.2.2.

Table A.3.B.2.2.2 Total Weightage Score of Plus Trees of *Beilschmiedia gammieana* in Darjeeling Division

Tree No.	Total Weightage Score
BG 1	87.25
BG 2	88.75

Both the trees as located in different locations hence both will be retained as plus trees in the division.

A.3.B.2.3 *Castanopsis hystrix*

1 healthy and phenotypically superior tree was observed in the division. The tree will be retained as plus tree.

Table A.3.B.2.3.1 Growth Data of Plus Trees of *Castanopsis hystrix* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CH/1	31	18	1.75	16	12	7	7	10

A.3.B.2.4 *Elaeocarpus sikkimensis*

1 healthy and phenotypically superior tree was observed in the division. The tree will be retained as plus tree.

Table A.3.B.2.4 Growth Data of Plus Trees of *Elaeocarpus sikkimensis* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ES/ 2	30	21	1.75	8	9	7	10	10

A.3.B.2.5 *Engelhardtia spicata*

3 phenotypically desirable trees were located in the division. The growth data of trees is as follow:

Table A.3.B.2.5.1 Growth Data of Plus Trees of *Engelhardtia spicata* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ES /1	34	20	3.6	21	10	10	7	10
ES /2	28	21	2.4	15	14	10	10	10
ES /3	32	21	2.35	13.5	12	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.10, III.11 & III.12) and finally the total weightage score was computed as below:

Table A.3.B.2.5.2 Total Weightage Score of Plus Trees of *Engelhardtia spicata* in Darjeeling Division

Tree No.	Total Weightage Score
ES 1	93
ES 2	94.75
ES 3	89.25

Tree No. ES1 is in different location and ES2 and ES3 are located far away from each other. Hence all the 3 trees will be retained as plus trees.

Fig. A.3.B.2.5.1 Area and Location of Different Trees *Engelhardtia spicata* in Darjeeling Division

A.3.B.2.6 *Macaranga pustulata*

2 phenotypically good trees were found in the division and growth data of same is as follow:

Table A.3.B.2.6.1 Growth Data of Plus Trees of *Macaranga pustulata* in Darjeeling Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MP 1	25	18	1.22	8	9	10	10	10
MP 2	30	12	1.55	12	8	10	10	10

For further screening, scoring and weightage was given to each trait (Annexure-III, Table III.13, III.14 & III.15), and total weightage score is presented in table below:

Table A.3.B.2.6.2 Total Weightage Score of Plus Trees of *Macaranga pustulata* in – Darjeeling Division

Tree No.	Total Weightage Score
MP 1	96.25
MP 2	97.75

Both trees are quite far from each other, hence both will be retained as plus trees.

Fig. A.3.B.2.6.1 Area and Location of Different Trees *Macaranga pustulata* in Darjeeling Division

A.3.B.2.7 *Machilus Edulis*

5 plus trees (in Bold Letters) and 8 candidate plus trees of the species (Table A.3.B.2.7.1) were found in the division.

Table A.3.B.2.7.1 Growth Data of Plus Trees and Candidate Plus Trees of *Machilus Edulis* in Darjeeling Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ME 1 (Linding)	**24**	**17**	**1.62**	**6**	**10**	**10**	**10**	**10**
ME 1	**29**	**22**	**1.76**	**8**	**8**	**10**	**10**	**10**
ME 2	**30**	**8**	**1.65**	**13**	**12**	**10**	**10**	**10**
ME 3	**21**	**16**	**1.55**	**8**	**6**	**10**	**10**	**10**
ME 4	**25**	**19**	**1.8**	**16**	**13**	**10**	**10**	**10**
ME 2	26	17	1.85	13	9	10	10	10
ME 3	20	13	1.42	6	9	10	10	10
ME 4	25	19	1.75	12	12	10	10	10
ME 5	30	23	1.7	12	13	10	10	10
ME 6	24	12	1.72	10	10	10	10	10
ME 7	24	20	1.7	9	8	10	10	10
ME 8	31	24	1.6	10	10	10	10	10
ME 9	23	14	1.85	12	7	10	10	10

**Bold texts are of plus trees*

After scoring and giving weightage to each trait (Anexure-III, Table III.16, III.17 & III.18), the total weightage score was computed as ahead:

Table A.3.B.2.7.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Machilus edulis* in Darjeeling Division

Tree No.	Total Weightage Score
ME 1 (Linding)	**86.25**
ME 1	**95.25**
ME 2	**87.75**
ME 3	**82.50**
ME 4	**95.0**
ME 2	92.25
ME 3	78.50
ME 4	92.50
ME 5	97.50
ME 6	86.75
ME 7	90.25
ME 8	95.25
ME 9	92.25
Mean	**90.15**

1 tree is in different location (ME 1 Linding), hence will be retained as plus tree. Other remaining plus trees and candidate plus trees are within an area of 3 hectare (Fig. A.3.B.2.7.1), hence 3 trees will be retained or marked as plus trees (**ME 1**, ME 5 and ME 8) and remaining will be marked as candidate plus trees.

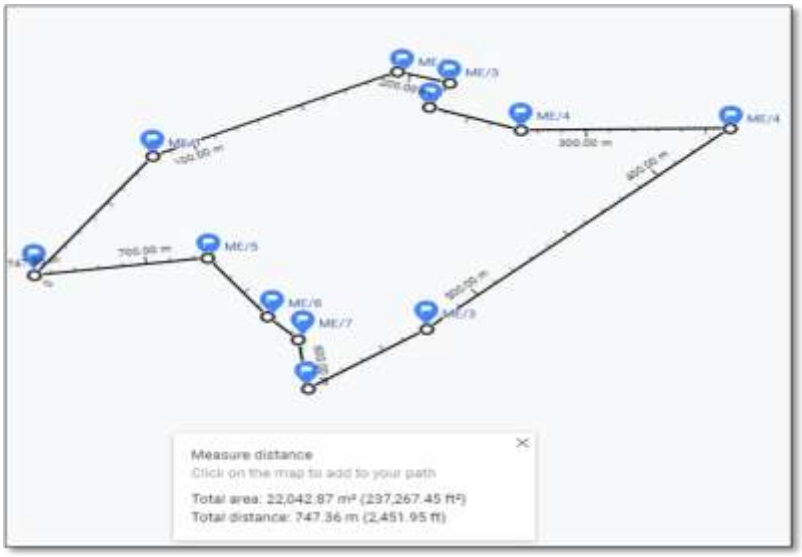


Fig. A.3.B.2.7.1 Area and Location of Different Trees *Machilus Edulis* in Darjeeling Division

A.3.B.2.8 *Michelia cathcartii*

Only 1 plus tree was there in the division and was phenotypically superior. Tree will be retained as plus tree.

Table A.3.B.2.8.1 Growth Data of Plus Trees of *Michelia cathcartii in* Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MC/1	15	11.5	1.6	8	10	10	10	10

A.3.B.2.9 *Nyssa javanica*

3 phenotypically good trees of the species were found in the division. The growth data of the same is as follow:

Table A.3.B.2.9.1 Growth data of Plus Trees of *Nyssa javanica* in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NJ/1	32	5	1.43	7	13	10	10	10
NJ 4	24	20	1.55	6	8	10	10	10
NJ 5	24	15	1.73	9	9	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.19, III.20 & III.21) and finally the total weightage score was computed as ahead:

Table A.3.B.2.9.2 Total Weightage Score of plus Trees of *Nyssa javanica* in – Darjeeling Division

Tree No.	Total Weightage Score
NJ 1	91.75
NJ 4	95.5
NJ 5	96.25
Mean	**94.5**

As the trees are distributed over a large area, hence all will be retained as plus trees.

Fig. A.3.B.2.9.1 Area and Location of Different Trees of *Nyssa javanica* in Darjeeling Division

A.3.B.2.10 *Taxus wallichiana*

6 phenotypically good trees were found in the division and there was no direction rejection of any tree. The growth data of same is as follow:

Table A.3.B.2.10.1 Growth Data of Plus Trees of *Taxus wallichiana*in Darjeeling Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TW 3	9	4	0.68	10	11	10	10	10
TW 4	11	3	0.78	8	10	10	10	10
TW 5	10	3.5	0.75	10	12	10	10	10
TW 6	10	3.5	0.85	9	10	10	10	10
TW 7	9.5	3	0.75	9.5	9	10	10	10
TW 8	10.5	6	0.8	9	9	10	10	10

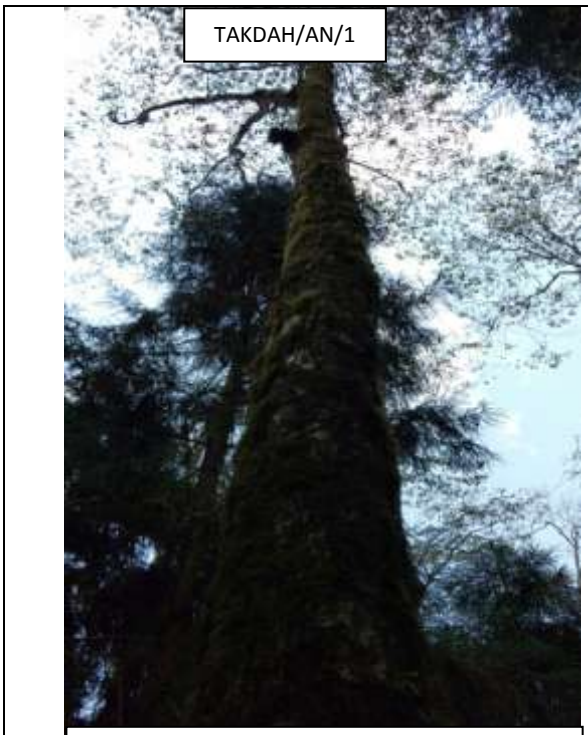
Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.22, III.23 & III.24) and finally the total weightage score was computed as below:

Table A.3.B.2.10.2 Total Weightage Score of Plus Trees of *Taxus wallichiana*in Darjeeling Division

Tree No.	Total Weightage Score
TW 3	79.75
TW 4	88.5
TW 5	87
TW 6	90
TW 7	82.5
TW 8	95.25
Mean	**87.17**

All the trees are very close to each other (Fig. 3.b.2.10.1), hence only 1 tree will be retained as plus tree (TW/8) and remaining will be marked as candidate plus trees.

Fig. A.3.B.2.9.1 Area and Location of Different Trees of *Taxus wallichiana* in Darjeeling Division



Plus Tree of *Alnus nepalensis* at Takdah

Plus Tree of *Elaeocarpus Sikkimensis*at Takdah

Plus Tree of *Michelia edulis* at Takdah

Plus Tree of *Taxus wallichiana* atRimbik

Fig. A.3.B.1 Gliimpse of Existing Plus Trees in Darjeeling Division

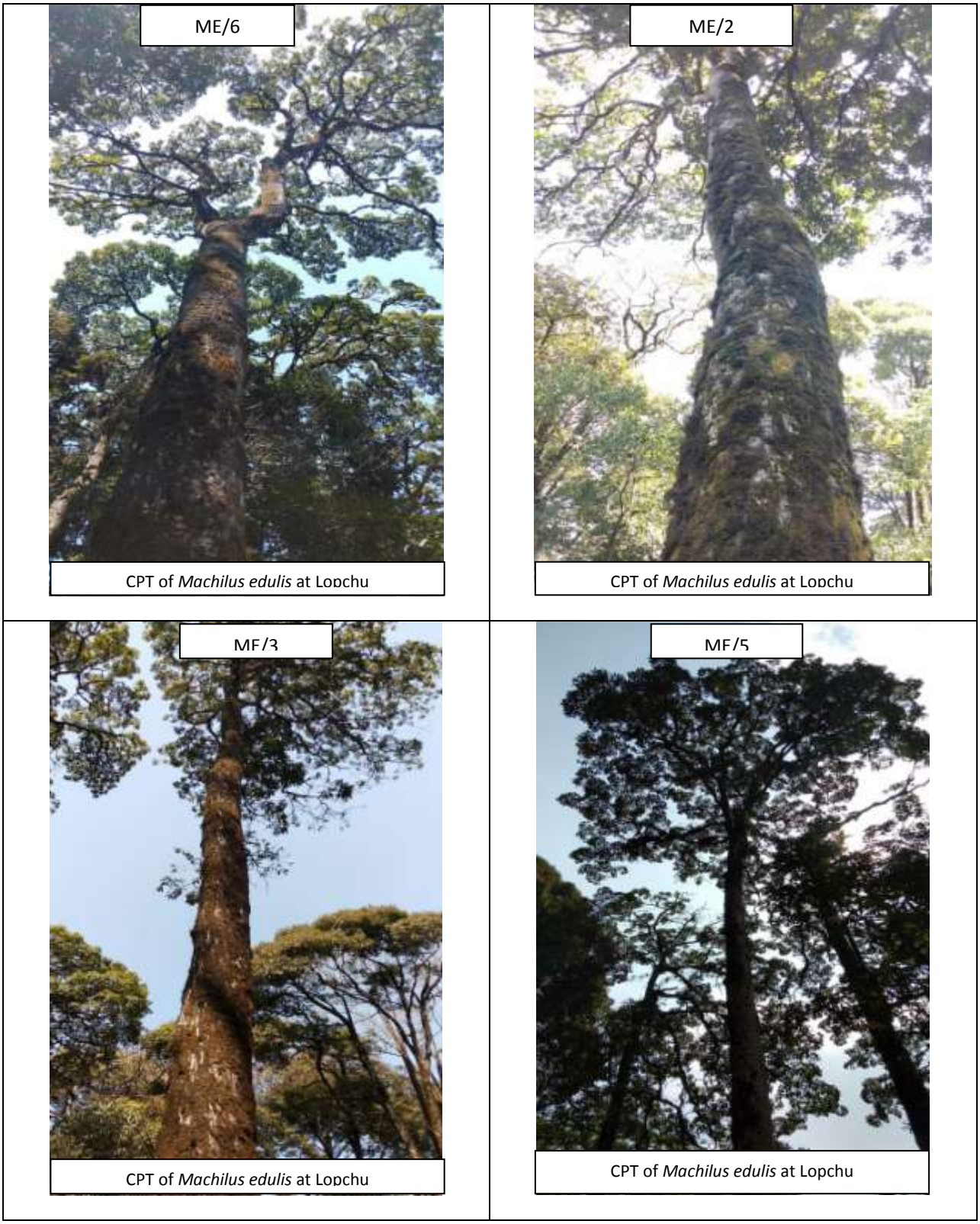


Fig. A.3.B.2 Gliimpse of Existing Candidate Plus Trees in Darjeeling Division

A.3.C Darjeeling Wild Life

124 plus trees of 41 species out of 155 plus trees were actually found in the division (Table A.3.C.1).

Table A.3.C.1 Abstract of Plus Trees in Darjeeling Wild Life Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Acer campbellii*	7	0	7	0	7	0
2.	*Ailanthus grandis*	1	0	1	0	1	0
3.	*Albizia lebbeck*	1	0	1	0	1	0
4.	*Albizia procera*	1	0	1	0	1	0
5.	*Amoora wallichii*	3	0	2	1	3	0
6.	*Betula alnoides*	3	0	2	1	3	0
7.	*Bombax ceiba*	3	0	2	1	3	0
8.	*Canarium sikkimensis*	2	0	2	0	2	0
9.	*Chukrasia tabularis*	2	0	2	0	2	0
10.	*Cinnamomum impressinervium*	1	0	1	0	1	0
11.	*Castanopsis hystrix*	1	0	0	1	1	0
12.	*Dalbergia cultrate*	3	0	3	0	3	0
13.	*Dalbergia latifolia*	1	0	1	0	1	0
14.	*Dalbergia sissoo*	1	0	0	1	1	0
15.	*Dipterocarpus turbinatus*	3	0	3	0	3	0
16.	*Dysoxylum procerum*	2	0	2	0	2	0
17.	*Elaeocarpus sikkimensis*	2	0	2	0	2	0
18.	*Eriobotrya petiolata*	8	0	8	0	8	0
19.	*Gmelina arborea*	4	0	3	1	4	0
20.	*Juglans regia*	15	0	5	10	15	0
21.	*Lagerstroemia flos reginae*	5	0	3	2	5	0
22.	*Lagerstroemia hypoleuca*	16	0	11	5	16	0
23.	*Lagerstroemia parviflora*	3	0	2	1	3	0
24.	*Machilus edulis*	1	0	1	0	1	0
25.	*Machilus villosa*	1	0	0	1	1	0
26.	*Melia composita*	1	0	0	1	1	0
27.	*Mesua ferrea*	3	0	3	0	3	0

28.	*Michelia cathcartii*	5	0	4	1	5	0
29.	*Michelia champaca*	6	0	6	0	6	0
30.	*Phoebe attenuata*	3	0	3	0	3	0
31.	*Pinus petula*	1	0	0	1	1	0
32.	*Prunus napaulensis*	3	0	3	0	3	0
33.	*Pterocarpus marsupium*	1	0	1	0	1	0
34.	*Quercus Lamellose*	5	0	5	0	5	0
35.	*Quercus lineata*	5	0	0	5	5	0
36.	*Quercus pachyphylla*	5	0	5	0	5	0
37.	*Schima wallichii*	3	0	3	0	3	0
38.	*Shorea Robusta*	1	0	0	1	1	0
39.	*Swietenia mahagoni*	3	0	3	0	3	0
40.	*Tectona grandis*	5	0	5	0	5	0
41.	*Taxus wallichiana*	2	0	2	0	2	0
42.	*Terminalia arjuna*	1	0	1	0	1	0
43.	*Terminalia bellirica*	1	0	1	0	1	0
44.	*Terminalia chebula*	2	0	0	2	2	0
45.	*Terminalia crenulata*	3	0	3	0	3	0
46.	*Terminalia myriocarpa*	2	0	2	0	2	0
47.	*Tsuga brunoniana*	2	0	2	0	2	0
48.	*Xylia dolabriformis*	2	0	2	0	2	0
TOTAL		**155**	**0**	**124**	**31**	**155**	**Nil**

In case of candidate plus trees, the list was of 98 trees of 28 species, however in the field, there were 72 trees of 25 species (Table A.3.C.2).

Table A.3.C.2 Abstract of Candidate Plus Trees in Darjeeling Wild Life Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
a	**b**	**c**	**d**	**e**	**f**	**g (e+ f)**	**h**
1.	*Acer hookeri*	3	0	1	2	3	0
2.	*Adina cordifolia*	10	0	10	0	10	0
3.	*Albizia lebbeck*	2	0	2	0	2	0
4.	*Albizia procera*	2	0	2	0	2	0
5.	*Betula alnoides*	5	0	5	0	5	0
6.	*Canarium sikkimensis*	1	0	1	0	1	0
7.	*Cinnamomum cecidodaphne*	3	0	2	1	3	0
8.	*Cinnamomum impressinervium*	5	0	5	0	5	0

9.	*Dalbergia latifolia*	3	0	3	0	3	0
10.	*Dalbergia sissoo*	2	0	2	0	2	0
11.	*Dipterocarpus turbinatus*	10	0	0	10	10	0
12.	*Elaeocarpus ganitrus*	5	0	5	0	5	0
13.	*Emblica officinalis*	1	0	1	0	1	0
14.	*Engelhardtia spicata*	1	0	0	1	1	0
15.	*Hukuse species*	1	0	1	0	1	0
16.	*Ilex godojan*	1	0	1	0	1	0
17.	*Jambusa formusa*	2	0	2	0	2	0
18.	*Juglans regia*	5	0	5	0	5	
19.	*Magnolia campbellii*	2	0	1	1	2	0
20.	*Mangifera sylvatica*	4	0	4	0	4	0
21.	*Michelia cathcartii*	2	0	0	2	2	0
22.	*Michelia champaca*	2	0	2	0	2	0
23.	*Pterocarpusmarsupium*	1	0	1	0	1	0
24.	*Quercuspachyphylla*	14	0	5	9	14	0
25.	*Schima wallichii*	2	0	2	0	2	0
26.	*Shorea robusta*	6	0	6	0	6	0
27.	*Strychnos nux vomica*	2	0	2	0	2	0
28.	*Terminalia crenulata*	1	0	1	0	1	0
TOTAL		**98**	**0**	**72**	**26**	**98**	**Nil**

A.3.C.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

14 plus trees of 8 species has been rejected directly in the field due to undesirable phenotypic traits as presented in the table below:

Table A.3.C.1.1 Abstract of Plus Trees Rejected in Darjeeling Wild Life Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1.	*Bombax ceiba*	01	CHAM/BC/1	Chamta	Tree was dried.
2.	*Dalbergia cultrate*	01	KYAN/DC/1	Kyananuka	Tree was dried.
3.	*Eriobotrya petiolata*	02	RAMB/EP/2	Rambhi-4	Forking was observed at a height of 4 meter.
			RAMB/EP/5	Rambhi-4	Tree was crooked.
4.	*Gmelina arborea*	02	PANCH/GA/3	Panchanai	Tree top was damaged.
			MOHO/GA/2	Mohorgaong	Clear bole height was very less. Braches started appearing at 4 meter height.
5.	*Lagerstroemia*	01	MOHO/LP/2	Mohorgaong	Drying of tree was

	parviflora				there. Termite attack was observed.
6.	*Phoebe attenuata*	02	KYAN/PA/1	Kyananuka	Both the trees were cut down
			KYAN/PA/2	Kyananuka	
7.	*Tectona grandis*	03	CHAM/TG/11	Chamta	Branches started appearing from 2 meter.
			CHAM/TG/12	Chamta	
			CHAM/TG/13	Chamta	
8.	*Taxus wallichiana*	02	CHAT/TW/1	Chatakpur	Branches started appearing from the breast height.
			CHAT/TW/1	Chatakpur	

Likewise, 13 candidate plus trees of 7 species were rejected directly in the field (Table A.3.C.1.2).

Table A.3.C.1.2 Abstract of Candidate Plus Trees Rejected in Darjeeling Wild Life Division

Sl No.	Species Name	No. of Trees Rejected	Seed Tree Number	Location	Reason for rejecting/ Discarding
1	*Adina cordifolia*	04	ADAL/AC/9	Adalpur	Braches started appearing from breast height.
			ADAL/AC/10		
			ADAL/AC/7		
			ADAL/AC/8		
2	*Dalbergia latifolia*	01	ADAL/DL/3	Adalpur	Tree damaged by Elephant.
3	*Dalbergia sissoo*	02	SUKNA/DS/1	Sukna	Trees dried due to termite attack.
			SUKNA/DS/2	Sukna	
4	*Elaeocarpus ganitrus*	01	KYAN/EG/3	Kyananuka	Tree damaged by Elephant.
5	*Jambosa formosa*	02	KYAN/JF/1	Kyananuka	Dead
			KYAN/JF/2	Kyananuka	Dead
6	*Shorea robusta*	02	KYAN/SR/1	Kyananuka	Tree has been cut.
			KYAN/SR/4	Kyananuka	Top part of the tree was damaged.
7	*Strychnos nux-vomica*	01	KYAN/SN/2	Kyananuka	Crooked Tree.

A.C.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees).Data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.3.C.2.1 *Acer campbellii*

7 healthy trees of the species were found in the division and growth data is presented in Table A.3.C.2.1.1

Table A.3.C.2.1.1 Growth Data of Plus Trees of *Acer campbellii* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMB/AC/1	15	9	1.4	9	10	10	7	10
SUREL/AC/4	28	10	1.45	8	6	10	7	10
SUREL/AC/5	40	20	1.15	8	7	7	7	10
SUREL/AC/6	39	8	1.15	26	9	10	10	10
SUREL/AC/7	39	24	1.1	8	7	10	10	10
SUREL/AC/8	33	28	1	6	5	10	7	10
SUREL/AC/9	38	13	1.1	9	11	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.25, III.26 & III.27) and finally the total weightage score was computed as below:

Table A.3.C.2.1.2 Total Weightage Score of Plus Trees of *Acer campbellii* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RAMB/AC/1	80.25
SUREL/AC/4	82.5
SUREL/AC/5	79.25
SUREL/AC/6	85.75
SUREL/AC/7	85.75
SUREL/AC/8	84
SUREL/AC/9	78
Mean	**82.21**

All the trees are distributed over an area of 2 hectare (Fig A.3.C.2.1.1). Hence only 2 trees will be retained as plus trees (SUREL/AC/6 and SUREL/AC/7) and remaining will be marked as candidate plus trees.

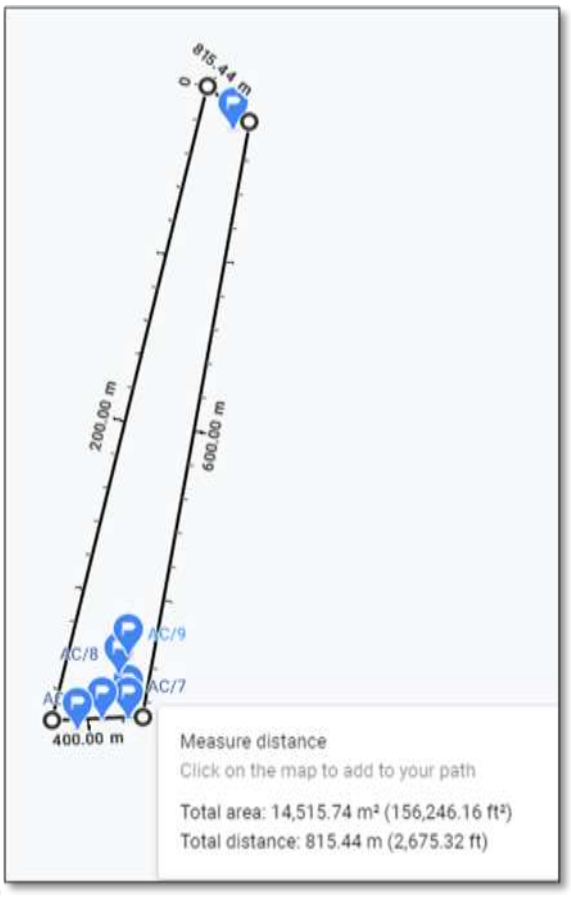


Fig. A.3.C.2.1.1 Area and Location of Different Trees of *Acer campbellii* in Darjeeling Wild Life Division

A.3.C.2.2 *Acer hookeri*

Only 1 tree was there in the division and found to be phenotypically superior (Table 3.C.2.2.1). The tree will be retained as candidate plus tree.

Table A.3.C.2.2.1 Growth Data of Candidate Plus Trees of *Acer hookeri in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RISO/AH/1	17	2.5	1.55	11	15	10	10	10

A.3.C.2.3 *Adina cordifolia*

After rejection 6 phenotypically good trees were observed in the division. The trees will be retained as candidate plus trees. The growth data of same is as follow:

Table A.3.C.2.3.1 Growth Data of Candidate Plus Trees of *Adina cordifolia in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
ADAL/AC/1	18	4.5	2.8	10	14	10	10	10
ADAL/AC/2	24	6	3.1	9	12	7	10	10
ADAL/AC/3	30	7	2.85	7.5	18	7	7	10
ADAL/AC/4	29	5	3	10	22	10	10	10
ADAL/AC/5	32	5	2.9	8.8	23	7	10	10
ADAL/AC/6	33	6	2.6	9	22	10	7	10

A.3.C.2.4 *Ailanthus grandis*

Only 1 healthy tree was found in the field and will be retained as plus tree. Growth data of the tree is as follow:

Table A.3.C.2.4.1 Growth data of Plus Trees of *Ailanthus grandis* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/AG/2	23	18	3.35	5	9	7	10	10

A.3.C.2.5 *Albizia lebbeck*

1 plus tree and 2 candidate plus trees were there in the division and all were phenotypically good (Table A.3.C.2.5.1).

Table A.3.C.2.5.1 Growth Data of Plus Trees and Candidate Plus Trees of *Albizia lebbeck* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/AL/1	**21**	**15**	**1.55**	**6**	**5**	**7**	**10**	**10**
ADAL/AL/1	17.5	12	1.85	7.5	10	10	7	10
ADAL/AL/2	27	16.5	2.1	11	12	10	7	10

**The bold texts are of Plus Trees.*

After giving scores and weightage to each trait (Annexure-III, Table III.28, III.29 & III.30), the total weightage scores of the trees are as follow:

Table A.3.C.2.5.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Albizia lebbeck* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
PANCH/AL/1	**79**
ADAL/AL/1	76.5
ADAL/AL/2	95.5

**The bold texts are of Plus Trees.*

PANCH/AL/1 will be retained as plus tree.However, number of trees for comparison is less; hence no plus tree will be marked in the division of the concerned species from CPTs. Rest2 trees will be marked as candidate plus trees.

A.3.C.2.6 *Albizia procera*

1 plus tree and 2 candidate plus trees were there in the division and all were phenotypically good (Table 3.C.2.6.1).

Table A.3.C.2.6.1 Growth data of Plus Trees and Candidate Plus Trees of *Albizia procera* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/AP/3	**22**	**11.5**	**1.8**	**8.6**	**9**	**10**	**7**	**10**
ADAL/AP/1	25	9	2.35	8	9	10	10	10
ADAL/AP/2	29	14	2.2	11	10	10	10	10

**The bold texts are of Plus Trees.*

After giving scores and weightage to each trait (Annexure-III, Table III.31, III.32 & III.33), the total weightage scores of the trees are as follow:

Table A.3.C.2.6.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Albizia procera* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
PANCH/AP/3	**76.25**
ADAL/AP/1	87.75
ADAL/AP/2	95.75
Mean	**86.58**

**The bold texts are of Plus Trees.*

PANCH/AP/3 will be retained as plus tree.However, number of trees for comparison is less; hence no plus tree will be marked in the division of the concerned species from CPTs. Rest 2 trees will be marked as candidate plus trees.

A.3.C.2.7 *Amoora wallichii*

2 plus trees were found in the division, which were phenotypically superior. Both the trees are in different locations, hence both will be retained as plus trees. Growth data of same is as follow:

Table A.3.C.2.7.1 Growth data of Plus Trees of *Amoora wallichii* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/AW/3	22	13	2.7	7	11	10	7	10
MOHO/AW/1	25	10	2.75	14	8	7	7	10

A.3.C.2.8 *Betula alnoides*

2 plus trees and 5 candidate plus trees were observed in the field and growth data of same is as follow:

Table A.3.C.2.8.1 Growth Data of Plus Trees and Candidate Plus Trees of *Betula alnoides* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUHI/BA/8	**24**	**17**	**2.6**	**8**	**7**	**7**	**10**	10
KUHI/BA/9	**29**	**19**	**3.3**	**16**	**9**	**10**	**10**	10
RESO/BA/1	20	13	4.1	8	13	10	7	10
RESO/BA/2	16	12	1.35	6	7	10	7	10
RESO/BA/3	16	10	1.25	7	14	7	10	10
RESO/BA/4	15	10	1.2	7	6	7	10	10
RESO/BA/5	18	10	1.55	5	8	10	10	10

**The bold texts are of Plus Trees.*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.34, III.35 & III.36) and finally the total weightage score was computed as ahead:

Table A.3.C.2.8.2 Total Weightage Score of Plus Trees and Candidate Plus Trees of *Betula alnoides* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KUHI/BA/8	**86.25**
KUHI/BA/9	**97.25**
RESO/BA/1	84
RESO/BA/2	77.5
RESO/BA/3	74.5
RESO/BA/4	71.5
RESO/BA/5	77.75
Mean	**81.25**

**The bold texts are of Plus Trees.*

As both the plus trees are very close to each other (Fig. A.3.C.2.8.1), hence only 1 tree will be retained as plus tree (KUHI/BA/9).

In the second location, candidate plus trees are distributed over an area of 2 hectares (Fig. A.3.C.2.8.2), 2 trees can be marked as plus trees. However above average line only 1 tree is falling, hence 1 tree will be marked as plus tree (RESO/BA/1) and remaining will be retained as candidate plus trees.

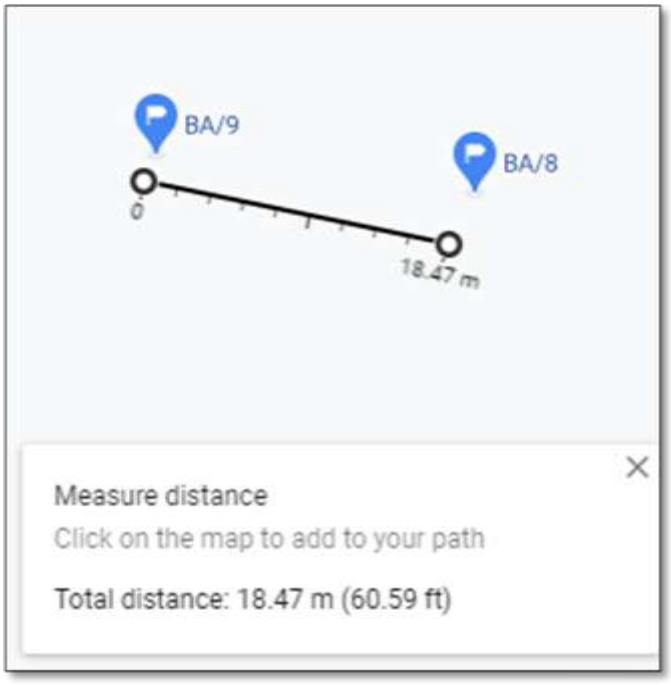


Fig. 3.C.2.8.1 Area and Location of Different Plus Trees of *Betula alnoides* in Darjeeling Wild Life Division

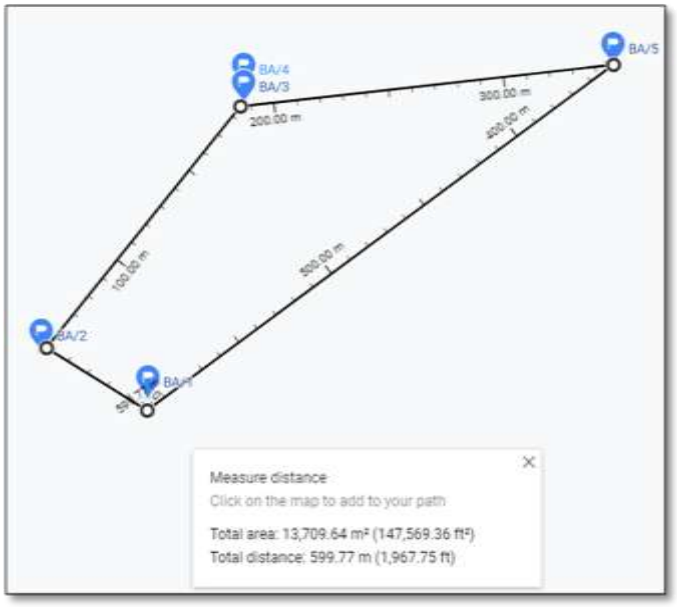


Fig. A.3.C.2.8.2 Area and Location of Different Candidate Plus Trees of *Betula alnoides* in Darjeeling Wild Life Division

A.3.C.2.9 *Bombax ceiba*

After rejection of 1 tree, 1 plus tree remained there, which was phenotypically superior (Table A.3.C.2.9.1) and will be retained as plus tree.

Table A.3.C.2.9.1 Growth Data of Plus Trees of *Bombax ceiba* in Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHAM/BC/2	28	20	3.5	7	11	10	7	10

A.3.C.2.10 *Canarium sikkimensis*

2 plus trees and 1 candidate plus tree were found in the division and phenotypically all were good (Table 3.C.2.10.1)

Table A.3.C.2.10.1 Growth data of Plus Trees and Candidate Plus Tree of *Canarium sikkimensis in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/CS/1	21	17	1.85	4	4	7	10	10
SUKNA/CS/2	**20**	**15.5**	**2.6**	**7**	**11**	**7**	**7**	**10**
SUKNA/CS/1	**18**	**15**	**2.2**	**5**	**10**	**10**	**7**	**10**

**The bold texts are of Plus Trees.*

After providing scores and weightage to each trait (Annexure-III, TableIII.37, III.38 & III.39), total weightage scores are as follow:

Table A.3.C.2.10.2 Total Weightage Score of Plus Tree and Candidate Tree of *Canarium sikkimensis* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/CS/1	85.5
SUKNA/CS/2	**82**
SUKNA/CS/1	**76.5**
Mean	**81.33**

**The bold texts are of Plus Trees.*

Both the plus trees are very close to each other (Fig. A.3.C.2.10.1), hence only 1 tree will be retained as plus tree (SUKNA/CS/2 tree) and other 2 trees will be marked as candidate plus trees.

Fig. A.3.C.2.10.1 Area and Location of Plus Trees of *Canarium sikkimensis* in Darjeeling Wild Life Division

A.3.C.2.11 *Cinnamomumcecidodaphne*

2 candidate plus trees are there in the division, which are phenotypically good trees (Table 3.C.2.11.1). Both will be retained as candidate plus trees.

Table A.3.C.2.11.1 Growth Data of Candidate Plus Trees of *Cinnamomum cecidodaphne in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/CC/1	19	10	1.9	8	15	10	10	10
PANC/CC/1	23	15	2.5	13.4	9	7	10	10

A.3.C.2.12 *Chukrasia tabularis*

2 phenotypically good plus trees were found in the division and growth data of same is as follow:

Table A.3.C.2.12.1 Growth Data of Plus Trees of *Chukrasia tabularis* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MOHO/CT/4	29	9	2.2	14	7	7	10	10
MOHO/CT/3	21	7	3	15	13	10	10	10

On the basis of commercial use of the species, weightage was given for each trait (Annexure-III, tableIII.40, III.41 & III.42) and finally the total weightage score was computed as below:

Table A.3.C.2.12.2 Total Weightage Score of Plus Trees of *Chukrasia tabularis* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
MOHO/CT/4	93.5
MOHO/CT/3	94.5
Mean	**94.0**

As both the trees are far from each other (Fig. A.3.C.2.12.1), hence both will be retained as plus trees.

Fig. A.3.C.2.12.1 Area and Location of Different Trees of *Chukrasia tabularis* in Darjeeling Wild Life Division

A.3.C.2.13. *Cinnamomum impressinervium*

6 trees were located in the division. As RAMB/CI/1 is in the different location, it will be retained as plus tree. Remaining candidate plus trees will be retained as such.

Table A.3.C.2.13.1 Growth data of Plus Trees and Candidate Plus Tree of *Cinnamomum impressinervium in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMB/CI/1	**23**	**18**	**1.4**	**9**	**10**	**7**	**10**	**10**
RISO/CI/1	23	7	1.5	8	7	7	7	10
RISO/CI/2	26	6	1.22	7	13	10	10	10
RISO/CI/3	36	23	1.5	8	15	7	10	10
RISO/CI/4	34	22	1.3	8	7	10	7	10
RISO/CI/5	35	13	1.8	14	11	10	7	10

**The bold texts are of Plus Trees.*

A.3.C.2.14 *Dalbergia cultrate*

2 good trees were found in the division after rejection of 1 tree. Growth data of same is as follow:

Table A.3.C.2.14.1 Growth data of Plus Trees of *Dalbergia cultrate* in Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/DC/2	17	6	1.6	8	12	7	10	10
KYAN/DC/3	18	5	2	7	17	10	10	10

On the basis of commercial use of the species weightage was given for each trait after giving scores (Annexure-III, TableIII.43, III.44 & III.45)and finally the total weightage score was computed as below:

Table A.3.C.2.14.2 Total Weightage Score of Plus Trees of *Dalbergia cultrate* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/DC/2	91.75
KYAN/DC/3	97.75
Mean	**94.75**

Both the trees are very close to each other (Fig. 3.C.2.14.1), hence only one tree (KYAN/DC/3) will be retained as plus tree and remaining will be marked as candidate plus tree.

Fig. A.3.C.2.14.1 Area and Location of Different Trees of *Dalbergia cultrate* in Darjeeling Wild Life Division

A.3.C.2.15 *Dalbergia latifolia*

After rejection of 1 candidate plus tree, 1 plus tree and 2 candidate plus trees were found in the division, which were phenotypically good trees (Table A.3.C.2.15.1).**KYAN/DL/2** is in a different location, hence will be retained as plus tree. Remaining 2 will be retained as candidate plus trees.

Table A.3.C.2.15.1 Growth data of Plus Trees and Candidate Plus Tree of *Dalbergia latifolia in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/DL/2	**13**	**2**	**0.85**	**5**	**9**	**7**	**10**	**10**
ADAL/DL/1	15	4	1.3	6.3	8	10	10	10
ADAL/DL/2	12	3.5	1	4	7	7	7	10

***The bold trees name are of Plus Trees.**

A.3.C.2.16 *Dipterocarpus turbinatus*

3 plus trees were observed in the division having good phenotypic traits (Table A.3.C.2.16.1).

Table A.3.C.2.16.1 Growth Data of Plus Trees of *Dipterocarpus turbinatus* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/DT/1	15.5	10	2.15	12	16	10	7	10
KYAN/DT/2	24	20	2.2	7.5	16	7	10	10
KYAN/DT/3	24	19.5	2.1	8	10	7	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.46, III.47 & III.48), the total weightage score was computed as below:

Table A.3.C.2.16.2 Total Weightage Score of Plus Trees of *Dipterocarpus turbinatus* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/DT/1	77.25
KYAN/DT/2	94.25
KYAN/DT/3	85.5
Mean	**85.67**

All the trees are within the periphery of 1 hectare (Fig. A.3.C.2.16.1); hence 1 tree will be retained as plus tree (KYAN/DT/2) and remaining 2 as candidate plus trees.

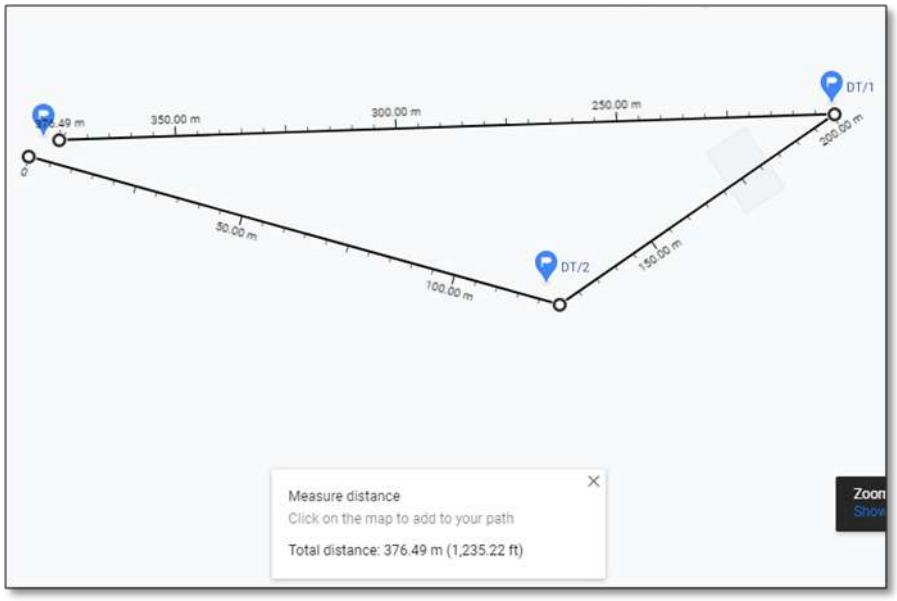


Fig. A.3.C.2.16.1 Area and Location of Different Trees of *Dipterocarpus turbinatus* in Darjeeling Wild Life Division

A.3.C.2.17 *Dysoxylum procerum*

In the division 2 plus trees of the species were observed and growth data of same was taken (Table A.3.C.2.17.1).

Table A.3.C.2.17.1 Growth data of Plus Trees of *Dysoxylum procerum* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MOHO/DP/1	17	5	2	14.6	9	10	7	10
MOHO/DP/2	20	7	1.6	8.5	8	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.49, III.50 & III.51) and finally the total weightage score was computed as below:

Table A.3.C.2.17.2 Total Weightage Score of Plus Trees of *Dysoxylum procerum* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
MOHO/DP/1	92
MOHO/DP/2	93

Both trees are not so far from each other (Fig. A.3.C.2.17.1), hence only 1 tree will be retained as plus tree (MOHO/DP/2) and other will be marked as candidate plus tree.

Fig. A.3.C.2.17.1 Area and Location of Different Trees of *Dysoxylum procerum* in Darjeeling Wild Life Division

A.3.C.2.18. *Elaeocarpus ganitrus*

4 phenotypically good trees were found in the division after the rejection of 1 tree. All the 4 trees will be retained as candidate plus trees. Growth data of same is as follow:

Table A.3.C.2.18.1 Growth Data of Candidate Plus Trees of *Elaeocarpus ganitrus in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/EG/1	16	8	1	8	5	10	10	10
KYAN/EG/2	15.5	6	1	7	21	7	10	10
KYAN/EG/4	18	6	0.95	8	12	7	7	10
KYAN/EG/5	16	12	0.85	7	12	10	10	10

A.3.C.2.19. *Elaeocarpus sikkimensis*

2 plus trees of the concerned species were observed in the division. Bothwere phenotypically good (Table A.3.C.2.19.1).

Table A.3.C.2.19.1 Growth data of Plus Trees of *Elaeocarpus sikkimensis* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMB/ES/1	24	12	2.15	14	7	7	10	10
RAMB/ES/2	22	14	2	12	14	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.52, III.53& III.54) and finally the total weightage score was computed as below:

Table A.3.C.2.19.2 Total Weightage Score of Plus Trees of *Elaeocarpus sikkimensis* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RAMB/ES/1	93.25
RAMB/ES/2	96.25

Both the trees are within 5 meter distance (Fig. A.3.C.2.19.1), hence only 1 tree will be retained as plus tree (RAMB/ES/2) and remaining as candidate plus tree.

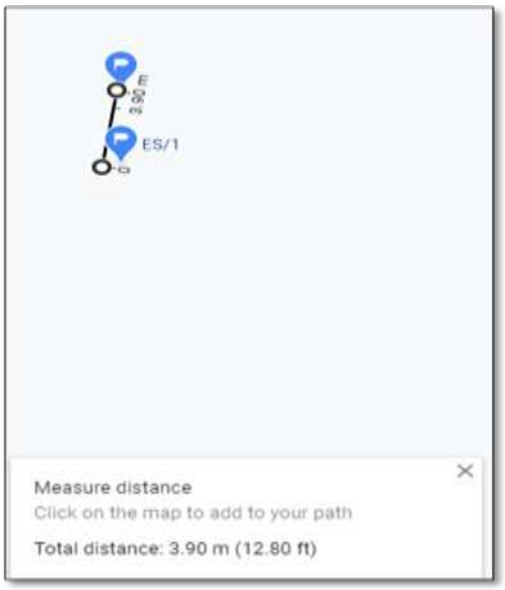


Fig. A.3.C.2.19.1 Area and Location of Different Trees of *Elaeocarpus sikkimensis* in Darjeeling Wild Life Division

A.3.C.2.20 *Emblica officinalis*

Only 1 candidate plus tree was found in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table A.3.C.2.20.1 Growth Data of Candidate Plus Trees of *Emblica officinalis in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/EO/1	13	6	0.55	3	4	10	10	10

A.3.C.2.21 *Eriobotrya petiolata*

6 plus trees were found there in the division after rejection of 2 trees on the basis of phenotypical appraisal. The growth data of trees is presented in Table A.3.C.2.21.1.

Table A.3.C.2.21.1 Growth data of Plus Trees of *Eriobotrya petiolata* in Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMB/EP/1	16	9	0.9	11	11	10	10	10
RAMB/EP/3	15	6	1.1	11	11	7	7	10
RAMB/EP/4	19	11	1.2	5	8	10	10	10
RAMB/EP/6	20	12	1.1	8	10	7	7	10
RAMB/EP/7	17.5	4	1.8	18	13	10	10	10
RAMB/EP/8	13	7	1.35	7	10	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.55, III.56 & III.57) and finally the total weightage score was computed as below:

Table A.3.C.2.21.2 Total Weightage Score of Plus Trees of *Eriobotrya petiolata* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RAMB/EP/1	86.25
RAMB/EP/3	73.75
RAMB/EP/4	92.25
RAMB/EP/6	98.75
RAMB/EP/7	90.5
RAMB/EP/8	75.5

Trees are distributed over a large area (Fig. A.3.C.2.21.1), hence all the trees will be retained as plus trees.

Fig. A.3.C.2.21.1 Area and Location of Different Trees of *Eriobotrya petiolata* in Darjeeling Wild Life Division

A.3.C.2.22. *Gmelina arborea*

After rejection, 1 plus tree were there in the division, which was phenotypically superior (Table A.3.C.2.22.1). The tree will be retained as plus tree.

Table A.3.C.2.22.1 Growth data of Plus Trees of *Gmelina arborea* in Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MOHO/GA/1	16.5	11	1.7	5	7	10	10	10

A.3.C.2.23 *Hukuse (Pterygota alata)*

Only 1 candidate plus tree was observed in the division and will be retained as candidate plus tree. Growth data of same is as follow:

Table A.3.C.2.23.1 Growth data of Candidate Plus Trees of *Hukuse (Pterygota alata)* *in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/1	16	6.5	1.85	10	5	10	10	10

A.3.C.2.24 *Ilex godojan*

Only 1 candidate plus tree was observed in the division and will be retained as candidate plus tree. Growth data of same is as follow:

Table A.3.C.2.24.1 Growth data of Candidate Plus Trees of *Ilex godojan in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/1	18	12	1.6	6	7	7	10	10

A.3.C.2.25 *Juglans regia*

In totality 10 Plus trees and candidate plus trees were found in the division. All the trees were phenotypically good (Table A.3.C.2.25.1).

Table A.3.C.2.25.1 Growth Data of Plus Trees and Candidate Plus Tree of *Juglans regia in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMB/JR/1	**24**	**19**	**1.35**	**6**	**6**	**7**	**10**	**10**
RAMB/JR/2	**24**	**17**	**1.65**	**7**	**6**	**10**	**10**	**10**
RAMB/JR/3	**23**	**18**	**1.7**	**5**	**9**	**7**	**7**	**10**
RAMB/JR/4	**24**	**17**	**2.1**	**9**	**9**	**10**	**10**	**10**
RAMB/JR/5	**25**	**15**	**1.95**	**12**	**9**	**7**	**7**	**10**
RISO/JR/1	18	10	1.3	8	8	10	10	10
RISO/JR/2	17	10	1.1	6	9	10	7	10
RISO/JR/3	17	12	1.75	7	9	7	10	10
RISO/JR/4	17	10	1.4	7.8	6	10	7	10
RISO/JR/5	16	13	1.45	9	10	7	7	10

**The bold texts are of Plus Trees.*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.58, III.59 & III.60)and finally the total weightage score was computed as below:

Table A.3.C.2.25.2 Total Weightage Score of Plus Tree and Seed Tree of *Juglans regia* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RAMB/JR/1	**86**
RAMB/JR/2	**90.75**
RAMB/JR/3	**84.25**
RAMB/JR/4	**95.75**
RAMB/JR/5	**86.75**
RISO/JR/1	80.5
RISO/JR/2	72.25
RISO/JR/3	80.5
RISO/JR/4	74
RISO/JR/5	72.5

**The bold texts are of Plus Trees.*

All the plus trees are located in more than 5 hectare area (Fig. A.3.C.2.25.1), hence all the trees will be retained as plus tree. In case of candidate plus trees, all trees are below the average value, hence no plus tree can be selected from them. Hence all 5 will be retained as candidate plus trees.

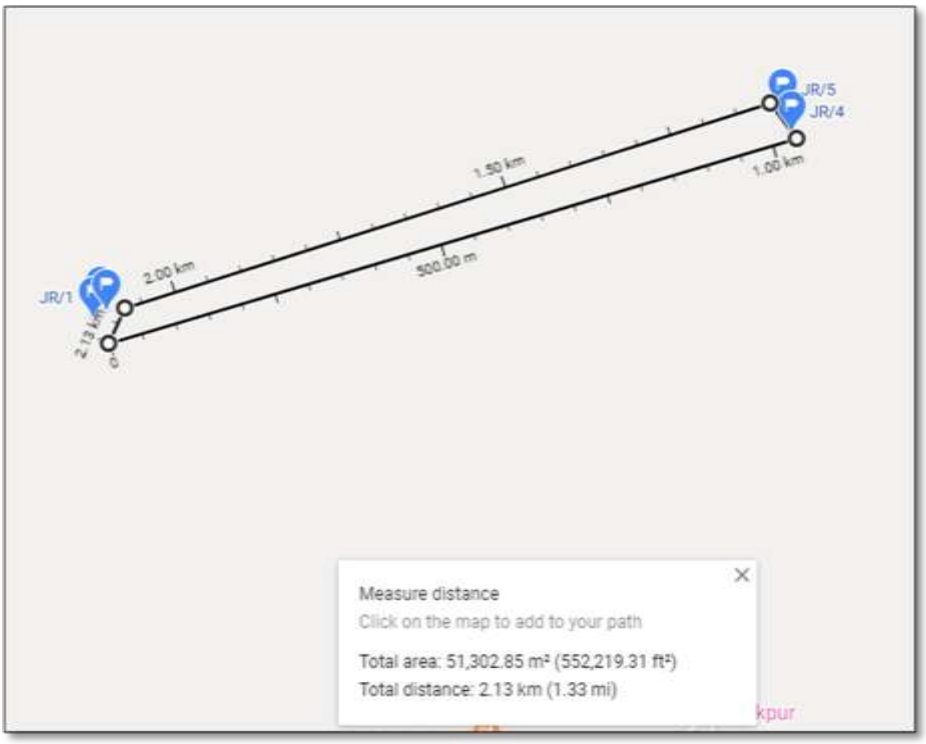


Fig. A.3.C.2.21.1 Area and Location of Different Plus Trees of *Juglans regia* in Darjeeling Wild Life Division

A.3.C.2.26 *Lagerstroemia flos reginae*

In the division, 3 trees were found there having good phenotypic appraisal (Table A.3.C.2.26.1).

Table A.3.C.2.26.1 Growth Data of Plus Trees of *Lagerstroemia flos reginae*in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/LF/1	18	6.5	2.2	11	12	7	10	10
KYAN/LF/2	17.5	11	1.55	9	6	7	7	10
PANCH/LF/3	18	9	1.5	7.5	8	7	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.3.B.1.1.

A.3.C.2.27 *Lagerstroemia hypoleuca*

11 phenotypically good trees were found in the division and growth data of same is as follow:

Table A.3.C.2.27.1 Growth Data of Plus Trees of *Lagerstroemia hypoleuca* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/LH/1	19	14	1.9	13	7	7	10	10
KYAN/LH/2	18	12	2.2	7	5	7	7	10
KYAN/LH/3	18	13	2.15	10	8	7	10	10
KYAN/LH/4	16.5	12.5	2.2	9	9	10	7	10
KYAN/LH/5	22	12	2.5	11	8	10	10	10
KYAN/LH/6	20	17	1.65	12	6	7	10	10
KYAN/LH/7	21	14	1.8	11	6	10	10	10
KYAN/LH/8	20.5	14	1.55	9	7	10	7	10
KYAN/LH/9	20	15	2	8	7	7	7	10
KYAN/LH/10	21	15.5	2	9	7	10	7	10
KYAN/LH/11	19	15.5	1.6	9	7	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.61, III.62 & III.63) and finally the total weightage score was computed as below:

Table A.3.C.2.27.2 Total Weightage Score of Plus Trees of *Lagerstroemia hypoleuca* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/LH/1	82
KYAN/LH/2	74.5
KYAN/LH/3	82.25
KYAN/LH/4	78.75
KYAN/LH/5	91.5
KYAN/LH/6	85.25
KYAN/LH/7	87
KYAN/LH/8	80.25
KYAN/LH/9	80
KYAN/LH/10	88.25
KYAN/LH/11	81.25

Trees are distributed within 1 hectare area, hence KYAN/LH/5 will be retained as as plus trees.KYAN/LH/1, KYAN/LH/3, KYAN/LH/6, KYAN/LH/7, KYAN/LH/10 and KYAN/LH/11 will be marked as candidate plus trees. Rest trees will be rejcetd.

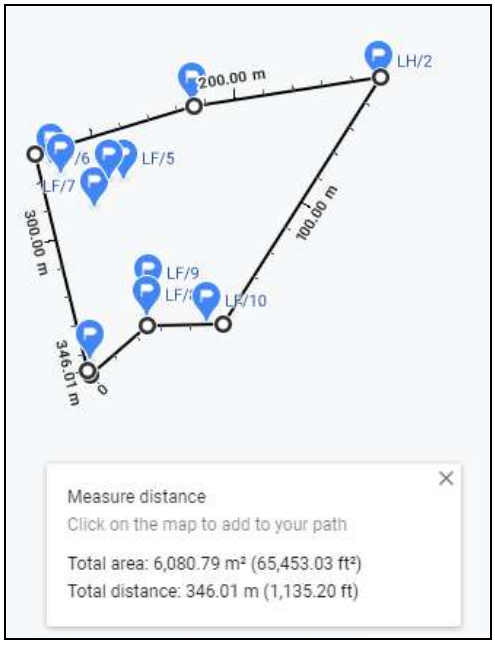


Fig. A.3.C.2.27.1 Area and Location of Different Plus Trees of *Lagerstroemia hypoleuca* in Darjeeling Wild Life Division

A.3.C.2.28. *Lagerstroemia parviflora*

After rejection, only 1 tree was left in the division which was phenotypically good (Table A.3.C.2.28.1). The tree will be retained as plus tree.

Table A.3.C.2.28.1 Growth data of Plus Trees of *Lagerstroemia parviflora* in Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/LP/3	19	14	1.9	13	7	7	10	10

A.3.C.2.29. *Machilus edulis*

In the division, only 1plus tree was found which was phenotypically good (Table A.3.C.2.29.1). The same will be retained as plus tree.

Table A.3.C.2.29.1 Growth Data of Plus Trees of *Machilus edulis* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/ME/1	23	19	1.8	5	9	10	7	10

A.3.C.2.30 *Magnoliacampbellii*

In the division, only 1plus tree was found which was phenotypically good (Table A.3.C.2.30.1). The same will be retained as plus tree.

Table A.3.C.2.30.1 Growth data of Candidate Plus Trees of *Magnolia campbellii in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RISO/MC/1	16	8	1.35	14	10	10	7	10

A.3.C.2.31 *Mangifera sylvatica*

4 candidate plus tree were found in 3 locations of the division. All trees were phenotypically good (Table A.3.C.2.31.1) and will be retained as candidate plus trees.

Table A.3.C.2.31.1 Growth data of Candidate Plus Trees of *Mangifera sylvatica in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANC/MS/4	14	6.5	1.4	7	12	7	10	10
UCHA/MS/1	14	3	2.1	9	7	7	10	10
UCHA/MS/2	18	7.5	1.6	8.3	8	10	7	10
CHUK/MS/3	13	2.5	1.3	6.6	6	10	10	10

A.3.C.2.32 *Mesua ferrea*

3 plus trees were located in the division and no direct rejection was there. The growth data of same is presented as below:

Table A.3.C.2.32.1 Growth Data of Plus Trees of *Mesua ferrea* in Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/MF/1	12	3.7	1.35	14	15	10	7	10
KYAN/MF/2	13	3	1.05	12	14	7	7	10
KYAN/MF/3	15	3.5	1.4	8	13	7	7	10

After all the analysis (Annexure-III, TableIII.64, III.65 & III.66), the total weighted score of individuals are as follow:

Table A.3.C.2.32.2 Total Weightage Score of Plus Trees of *Mesua ferrea* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/MF/1	89.5
KYAN/MF/2	70
KYAN/MF/3	87.5

KYAN/MF/3 is located far from two other trees, hence will be retained as plus tree. However the remaining 2 are located within 100m distance, hence only 1 tree will be retained as plus tree (KYAN/MF/1) between these two. KYAN/MF/2 will be marked as candidate plus tree.

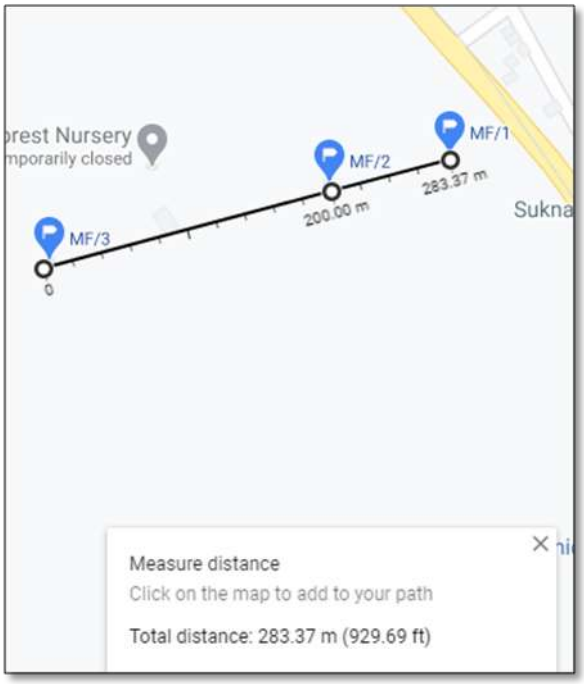


Fig. A.3.C.2.32.1 Area and Location of Different Plus Trees of *Mesua ferrea* in Darjeeling Wild Life Division

A.3.C.2.33 *Michelia cathcartii*

In the division, only 4plus tree were found which were phenotypically good (Table A.3.C.2.33.1).

Table A.3.C.2.33.1 Growth Data of Plus Trees of *Michelia cathcartii in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RESO/MC/9	21	14	1.2	10	8	10	7	10
RESO/MC/10	25	20	1.15	7	12	7	7	10
RESO/MC/11	24	19	1.05	7	11	7	7	10
RESO/MC/12	19	9	1.45	16	12	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.67, III.68 & III.69) and finally the total weightage score was computed as below:

Table A.3.C.2.33.2 Total Weightage Score of Plus Trees of *Michelia cathcartii* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RESO/MC/9	79.25
RESO/MC/10	84
RESO/MC/11	81.75
RESO/MC/12	82

All the trees are located in more than 3 hectare area (Fig. A.3.C.2.33.1), hence all the trees will be retained as plus trees.

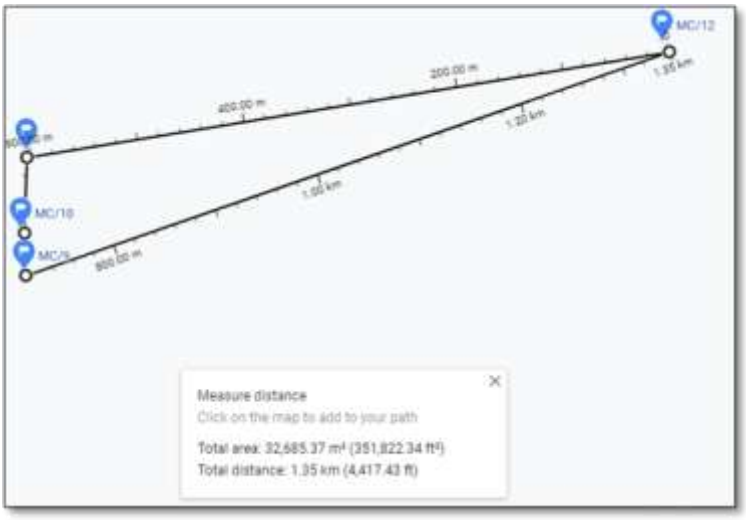


Fig. A.3.C.2.33.1 Area and Location of Different Plus Trees of *Michelia cathcartii* in Darjeeling Wild Life Division

A.3.C.2.34 *Michelia Champaca*

6 plus trees and 2 candidate plus trees were located in the division and all were phenotypically good (Table A.3.C.2.34.1).

Table A.3.C.2.34.1 Growth Data of Plus Trees and Candidate Plus Tree of *Michelia champaca in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
HATI/MC/4	**18**	**14**	**1.8**	**8**	**9**	**7**	**10**	**10**
HATI/MC/5	**20**	**15**	**2.6**	**13.6**	**8**	**10**	**10**	**10**
HATI/MC/6	**17**	**14**	**2.1**	**13**	**6**	**7**	**7**	**10**
MOHO/MC/1	**27**	**22**	**2.1**	**9**	**6**	**10**	**10**	**10**
MOHO/MC/2	**27**	**19**	**3**	**17**	**10**	**7**	**7**	**10**
MOHO/MC/3	**26**	**16**	**2.35**	**10**	**12**	**10**	**10**	**10**
ADAL/MC/1	28	7	3.3	17	15	10	7	10
ADAL/MC/2	27	3.5	2.8	13.7	10	7	10	10

**The bold texts are of Plus Trees.*

Score and weightage was given for each trait (Annexure-III, tableIII.70, III.71 & III.72) and finally the total weightage score was computed as ahead:

Table A.3.C.2.34.2 Total Weightage Score of Plus Tree and Candidate Plus Tree of *Michelia champaca* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
HATI/MC/4	**75.75**
HATI/MC/5	**88.5**
HATI/MC/6	**73.5**
MOHO/MC/1	**92**
MOHO/MC/2	**88.5**
MOHO/MC/3	**89.5**
ADAL/MC/1	87.5
ADAL/MC/2	84.75
Mean	**85.0**

**The bold texts are of Plus Trees.*

All the plus trees are within 1 hectare area (Fig. A.3.C.2.34.1), hence only 1 tree will be retained as plus tree (MOHO/MC/1) and remaining 5 will be marked as candidate plus trees. In case of candidate plus trees,ADAL/MC/1 will be marked as plus tree (value more than average) and remaining 1 will be retained as candidate plus tree.

Fig. A.3.C.2.34.1 Area and Location of Different Plus Trees of *Michelia champaca* in Darjeeling Wild Life Division

A.3.C.2.35 *Phoebe attenuata*

In the division, only 1plus tree was found after rejection which was phenotypically good (Table 3.C.2.35.1). The same will be retained as plus tree.

Table A.3.C.2.35.1 Growth Data of Plus Trees of *Phoebe attenuata*Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/PA/11	14	8.5	1.3	9	11	10	7	10

A.3.C.2.36 *Prunus napaulensis*

3 phenotypically superior trees were located in the division. The growth data is presented as below:

Table A.3.C.2.36.1 Growth data of Plus Trees of *Prunus napaulensis in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RISO/PN/3	32	20	1.8	12	14	10	7	10
RISO/PN/4	26	12	1.08	6	7	7	7	10
RISO/PN/5	32	24	1.3	6	6	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.73, III.74 & III.75) and finally the total weightage score was computed as below:

Table A.3.C.2.36.2 Total Weightage Score of Plus Trees of *Prunus napaulensis in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RISO/PN/3	93.5
RISO/PN/4	67
RISO/PN/5	83

The trees are located in more than 1 hectare area (Fig. A.3.C.2.36.1), hence 2 trees will be retained as plus trees (RISO/PN/3 and RISO/PN/5) and remaining 1 will be marked as candidate plus tree.

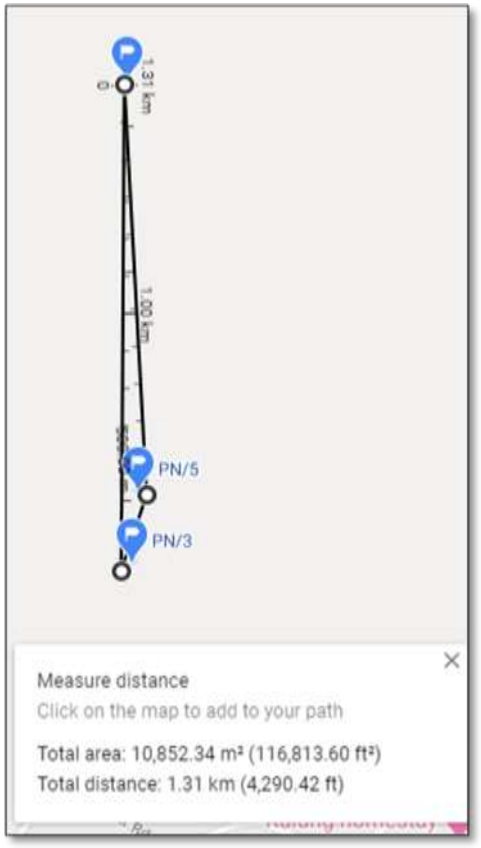


Fig. A.3.C.2.36.1 Area and Location of Different Plus Trees of *Prunus napaulensis* in Darjeeling Wild Life Division

A.3.C.2.37 *Pterocarpus marsupium*

1 plus tree and 1 candidate plus tree was observed in the division. Both will be retained as same. Growth data of the trees are as below:

Table 3.C.2.37.1 Growth Data of Plus Trees and Candidate Plus Tree of *Pterocarpus marsupium in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANCH/PM/1	**27**	**20**	**2.4**	**11**	**12**	**7**	**10**	**10**
PANC/PM/1	27	11	1.6	9	8	10	10	10

**The bold textis of Plus Tree.*

A.3.C.2.38 *Quercus lamellosa*

In the division, 4 phenotypically good plus tree of the species were found. Growth data of the trees is presented in the table below:

Table A.3.C.2.38.1 Growth Data of Plus Trees of *Quercus lamellosa in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RESO/QL/1	21	6	1.5	11	20	7	10	10
RESO/QL/2	14	7	1.1	13	14	7	10	10
RESO/QL/3	19	10	1.35	13	18	10	7	10
RESO/QL/4	15	8	1.15	9	10	10	10	10
RESO/QL/5	17	5	1.2	13	15	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.76, III.77 & III.78) and finally the total weightage score was computed as below:

Table A.3.C.2.38.2 Total Weightage Score of Plus Trees of *Quercus lamellosa in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RESO/QL/1	91.25
RESO/QL/2	79
RESO/QL/3	91.75
RESO/QL/4	86.25
RESO/QL/5	82

All the trees are within 1 hectare (Fig. A.3.C.2.38.1), hence only 1 tree will be retained as plus tree (RESO/QL/3) and remaining will be marked as candidate plus trees.

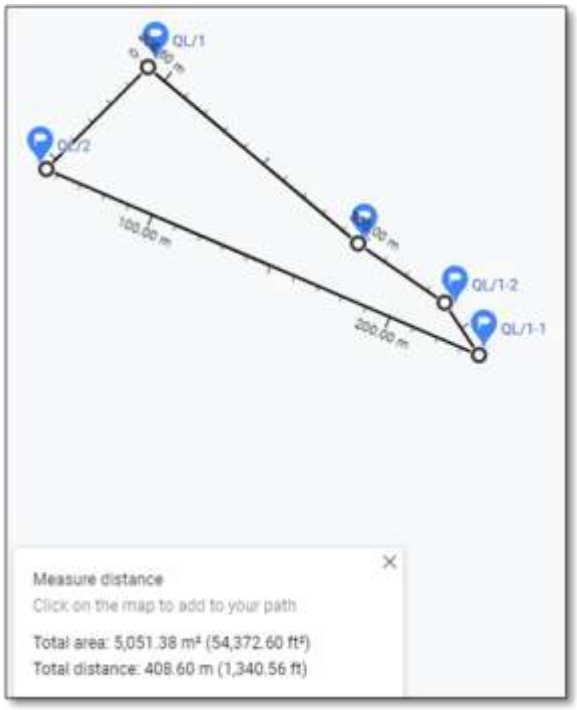


Fig. A.3.C.2.38.1 Area and Location of Different Trees of *Quercus lamellosa* in Darjeeling Wild Life Division

A.3.C.2.39 *Quercus pachyphylla*

5 plus trees and 5 candidate plus trees were found in the division. Growth data of same is as below:

Table A.3.C.2.39.1 Growth data of Plus Trees and Candidate Plus Tree of *Quercus pachyphylla in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RESO/QP/1	**16**	**9**	**1.75**	**15**	**14**	**7**	**10**	**10**
RESO/QP/2	**22**	**4**	**2.3**	**19**	**20**	**10**	**10**	**10**
RESO/QP/3	**18**	**10**	**1.7**	**10**	**24**	**7**	**10**	**10**
RESO/QP/4	**21**	**3**	**2.6**	**14**	**24**	**10**	**7**	**10**
RESO/QP/5	**22**	**4**	**2**	**20**	**18**	**10**	**10**	**10**
RAMB/QP/4	24	19	1.3	14	15	10	7	10
RAMB/QP/5	20	12	2.1	18	15	7	10	10
RESO/QP/1	26	10	1.75	12	17	10	7	10
RESO/QP/2	20	13	1.4	8	13	7	10	10
RESO/QP/3	22	17	1.35	9	15	7	10	10

**The bold texts are of Plus Trees*

Score and weightage was given for each trait (Annexure-III, TableIII.79, III.80 & III.81)and finally the total weightage score was computed as below:

Table A.3.C.2.39.2 Total Weightage Score of Plus Tree and Candidate Plus Tree of *Quercus pachyphylla* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
RESO/QP/1	**76.25**
RESO/QP/2	**86.75**
RESO/QP/3	**78.5**
RESO/QP/4	**84**
RESO/QP/5	**84.5**
RAMB/QP/4	84.75
RAMB/QP/5	84.25
RESO/QP/1	84.25
RESO/QP/2	79
RESO/QP/3	82.75
Mean	**82.50**

**The bold texts are of Plus Trees*

All the plus trees are within 1 hectare area (Fig. A.3.C.2.39.1), hence only 1 tree will be retained as plus tree (RESO/QP/2) and remaining 4 will be marked as candidate plus trees. candidate plus trees are located in area more than 2 hectare, 3 trees can be marked as plus trees.RAMB/QP/4, RAMB/QP/5 and RESO/QP/1 will be marked as plus trees and remaining as candidate plus trees.

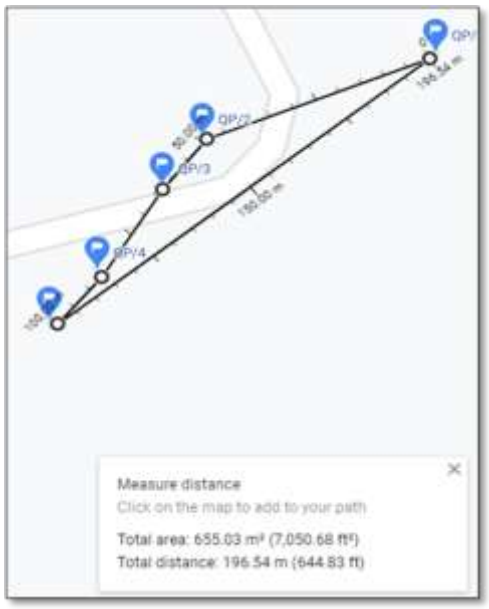


Fig. A.3.C.2.39.1 Area and Location of Different Plus Trees of *Quercus pachyphylla* in Darjeeling Wild Life Division

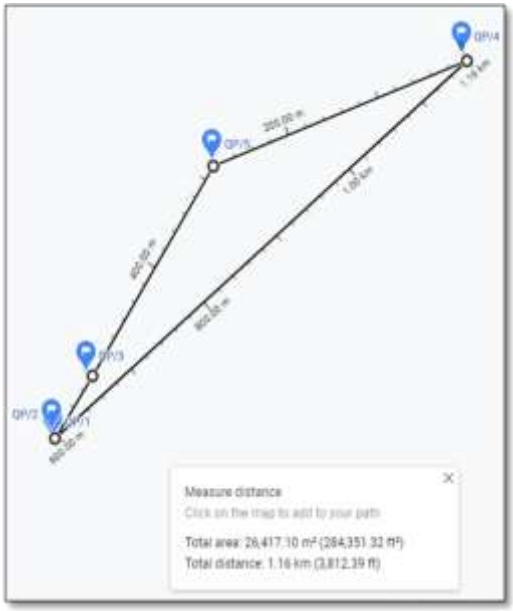


Fig. A.3.C.2.39.2 Area and Location of Different Plus Trees of *Quercus pachyphylla* in Darjeeling Wild Life Division

A.3.C.2.40 *Schima wallichii*

In the division 3 plus trees and 2 candidate trees were found. Growth data of the trees is as below:

Table A.3.C.2.40.1 Growth Data of Plus Trees and Candidate Pus Trees of *Schima wallichii* inDarjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MOHO/SW/3	**26**	**19**	**2.25**	**12**	**8**	**7**	**10**	**10**
KUHI/SW/1	**27**	**21**	**2.55**	**7**	**6**	**10**	**10**	**10**
KUHI/SW/2	**28**	**22**	**1.85**	**6**	**4**	**7**	**10**	**10**
ADAL/SW/1	24	5	2.6	9	17	10	7	10
ADAL/SW/2	22	3.5	3	6	12	10	10	10

***The bold trees name are of Plus Trees.**

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.82, III.83 & III.84) and finally the total weightage score was computed as below:

Table A.3.C.2.40.2 Total Weightage Score of Plus Tree and Candidate Plus Trees of *Schima wallichii* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
MOHO/SW/1	**87.25**
KUHI/SW/1	**94.5**
KUHI/SW/2	**85.5**
ADAL/SW/1	80.5
ADAL/SW/2	84.5
Mean	**86.45**

**The bold texts are of Plus Trees.*

KUHI/SW/1 and KUHI/SW/2 are very near to each other (Fig. A.3.C.2.40.1), only 1 tree will be retained as plus tree (KUHI/SW/1) and other will be marked as candidate plus tree. MOHO/SW/1 will be retained as plus tree. The candidate plus trees will be retained as candidate plus trees.

Fig. A.3.C.2.40.2 Area and Location of Different Plus Trees of *Schima wallichii* in Darjeeling Wild Life Division

A.3.C.2.41 *Shorea robusta*

4 phenotypically good trees were found in the division after rejection of inferior trees from the list. All the trees will be retained as candidate plus trees in the division. Growth data of trees is as follow:

Table A.3.C.2.41.1 Growth Data of Candidate Plus Trees of *Shorea robusta in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/SR/2	23	17	1.75	9	8	7	10	10
KYAN/SR/3	22	16	2	13	10	10	7	10
KYAN/SR/5	19	17	1.75	4	8	7	10	10
KYAN/SR/6	20	10.5	2	8	12	10	10	10

A.3.C.2.42 *Strychnosnux vomica*

In the division only 1 tree was located after rejection of inferior one and was phenotypically good (Table 3.C.2.43.1). The same will be retained as candidate plus tree.

Table A.3.C.2.42.1 Growth Data of Candidate Plus Trees of *Strychnos nuxvomica in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/SN/1	16.5	4	1.2	5	17	7	10	10

A.3.C.2.43 *Swietenia mahogany*

3 healthy plus trees were located in the division and no direct rejection was there. The growth data is presented in table A.3.C.2.43.1.

Table A.3.C.2.43.1 Growth data of Plus Trees of *Swietenia mahogany in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/SM/1	15	5	2.65	19	12	10	7	10
SUKNA/SM/2	18	10	2	2.7	9	7	7	10
SUKNA/SM/3	16	7.6	1.95	4	7	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.85, III.86 & III.87) and finally the total weightage score was computed as below:

Table A.3.C.2.43.2 Total Weightage Score of Plus Trees of *Swietenia mahogany* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/SM/1	81.25
SUKNA/SM/2	81.25
SUKNA/SM/3	72.5

SUKNA/SM/2 and SUKNA/SM/3 area located far from each other (Fig. A.3.C.2.43.1) and KYAN/SM/1 is in the different location. Hence all the trees will be retained as plus trees.

Fig. A.3.C.2.43.1 Area and Location of Different Trees of *Swietenia mahogany* in Darjeeling Wild Life Division

A.3.C.2.44 *Tectona grandis*

In the division 2 plus trees were remained there after rejection of inferior ones. The growth data of same is as below:

Table A.3.C.2.44.1 Growth data of Plus Trees of *Tectona grandis in* Darjeeling Wild Life Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHAM/TG/9	26	4	2.25	9	15	10	10	10
CHAM/TG/10	21.5	7	2.7	7	8	7	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.88, III.89 & III.90), the total weightage score was computed as below:

Table A.3.C.2.44.2 Total Weightage Score of Plus Trees of *Tectona grandis in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
CHAM/TG/9	96
CHAM/TG/10	93.5

As both the trees are located within 25 meter distance (Fig. 3.C.2.45.1), hence only 1 tree will be retained as plus tree (CHAM/TG/9) and remaining will be marked as candidate plus tree.

Fig. A.3.C.2.44.1 Area and Location of Different Trees of *Tectona grandis* in Darjeeling Wild Life Division

A.3.C.2.45 *Terminalia arjuna*

Only 1 tree was found in the division and was phenotypically superior (Table 3.C.2.46.1). The same will be retained as plus tree.

Table A.3.C.2.45.1 Growth Data of Plus Tree of *Terminalia arjuna in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits						Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark Thickness (mm)	Stem Straightness	Stem Form	Infection
SUKNA/TA/1	11	4	1.5	4	14	0.5	10	10	10

A.3.C.2.46 *Terminalia bellirica*

Only 1 tree was found in the division and was phenotypically superior (Table A.3.C.2.46.1). The same will be retained as plus tree.

Table A.3.C.2.46.1 Growth data of Plus Trees of *Terminalia bellirica in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MOHO/TB/1	15	10	1.6	10.5	5	7	10	10

A.3.C.2.47 *Terminalia crenulata*

3 plus trees and 1 candidate plus tree were found there in the division. All the trees were phenotypically good (Table A.3.C.2.47.1).

Table A.3.C.2.47.1 Growth Data of Plus Trees and Candidate Plus Tree of *Terminalia crenulata in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHAM/TT/1	**28**	**6**	**2.2**	**8**	**9**	**7**	**10**	**10**
CHAM/TT/2	**25**	**4**	**1.7**	**5.5**	**7**	**10**	**10**	**10**
CHAM/TT/3	**27**	**18**	**1.4**	**5**	**10**	**7**	**10**	**10**
SUKNA/TT/1	22	9	2.35	11.5	13	10	7	10

**The bold texts are of Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.91, III.92 & III.93) and finally the total weightage score was computed as ahead:

Table A.3.C.2.47.2 Total Weightage Score of Plus Trees and Candidate Plus Tree of *Terminalia crenulata* in Darjeeling Wild Life Division

Tree No.	Total Weightage Score
CHAM/TT/1	**86.5**
CHAM/TT/2	**83.25**
CHAM/TT/3	**84.5**
SUKNA/TT/1	85.5

**The bold texts are of Plus Trees*

All the plus trees are located within an area of 12 hectare (Fig. A.3.C.2.47.1). All the 3 plus trees will be retained as plus trees. 1 trees will be retained as candidate plus trees (SUKNA/TT/1).

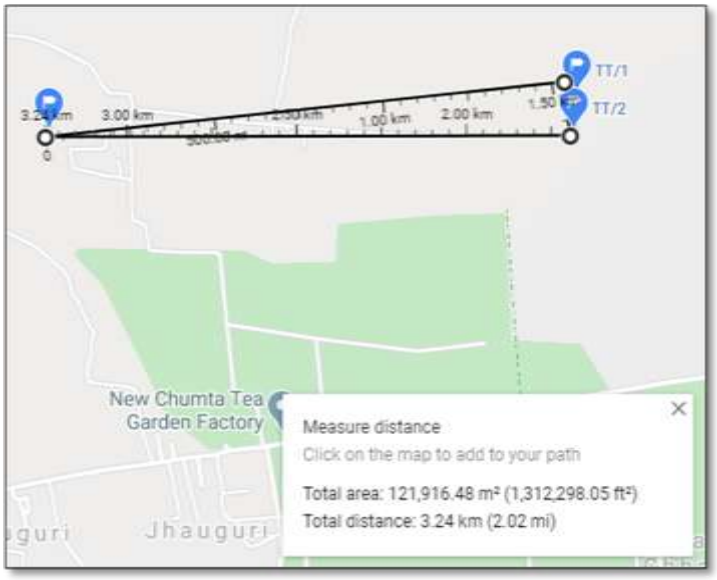


Fig. A,3.C.2.47.1 Area and Location of Different Trees of *Terminalia crenulata* in Darjeeling Wild Life Division

A.3.C.2.48 *Terminalia myriocarpa*

2 healthy trees were there in the division and no direct rejection was there. The growth data of the trees is as follow:

Table A.3.C.2.48.1 Growth Data of Plus Trees of *Terminalia myriocarpa in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUHI/TM/6	25	5.5	4.3	16	9	10	10	10
KUHI/TM/7	21	16	2.4	11	6	7	10	10

After all the analysis (Annexure-III, TableIII.94, III.95 & III.96), the total weightage score of individual tree is presented in table A.3.C.2.48.2.

Table A.3.C.2.48.2 Total Weightage Score of Plus Trees of *Terminalia myriocarpa in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KUHI/TM/6	98
KUHI/TM/7	91.5

As the trees are not located so far from each other (Fig. A.3.C.2.48.1), hence only 1 tree will be retained as plus tree (KUHI/TM/6) and remaining will be marked as candidate plus tree.

Fig. A.3.C.2.48.1 Area and Location of Different Trees of *Terminalia myriocarpa* in Darjeeling Wild Life Division

A.3.C.2.49 *Tsuga brunoniana*

2 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.C.2.49.1.

Table A.3.C.2.49.1 Growth data of Plus Trees of *Tsuga brunoniana in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SONA/TD/1	28	20	1.9	10	17	10	10	10
SONA/TD/2	28	12	1.9	9	34	7	10	10

After all the analysis (Annexure-III, TableIII.97, III.98 & III.99), the total weightage score of individual tree is presented in table A.3.C.2.49.2.

Table A.3.C.2.49.2 Total Weightage Score of Plus Trees of *Tsuga brunoniana in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
SONA/TD/1	99.75
SONA/TD/2	93.25

Both the trees are located very close to each other (Fig. A.3.C.2.49.1), hence only 1 tree will be retained as plus tree (SONA/TD/1) and remaining will be marked as candidate plus tree.

Fig. A.3.C.2.49.1 Area and Location of Different Trees of *Tsuga brunoniana* in Darjeeling Wild Life Division

A.3.C.2.50 *Xylia dolabriformis*

2 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.C.2.50.1.

Table 3.C.2.50.1 Growth Data of Plus Trees of *Xylia dolabriformis in* Darjeeling Wild Life Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KYAN/XD/1	22	15	2.35	11	12	10	10	10
KYAN/XD/2	22	14	2.5	7.8	9	7	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.100, III.101 & III.102), the total weightage score was computed as below:

Table A.3.C.2.50.2 Total Weightage Score of Plus Trees of *Xylia dolabriformis in* Darjeeling Wild Life Division

Tree No.	Total Weightage Score
KYAN/XD/1	98
KYAN/XD/2	93

Both the trees are located close to each other (Fig. A.3.C.2.50.1), hence only 1 tree will be retained as plus tree (KYAN/XD/1) and remaining will be marked as candidate plus tree.

Fig. A.3.C.2.50.1 Area and Location of Different Trees of *Xylia dolabriformis* in Darjeeling Wild Life Division

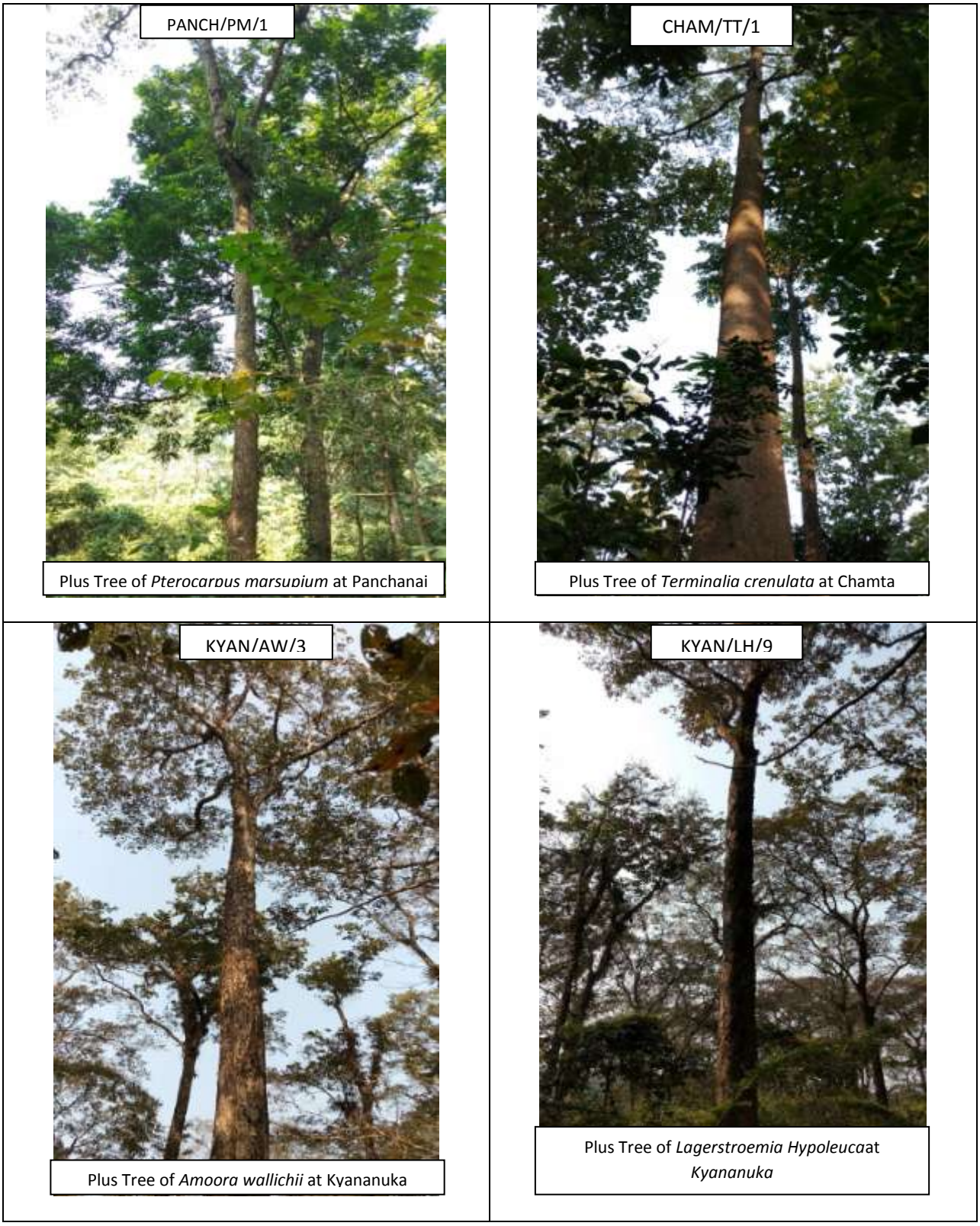


Fig. A.3.C.1 Glimpse of Existing Plus Trees in Darjeeling Wildlife Division

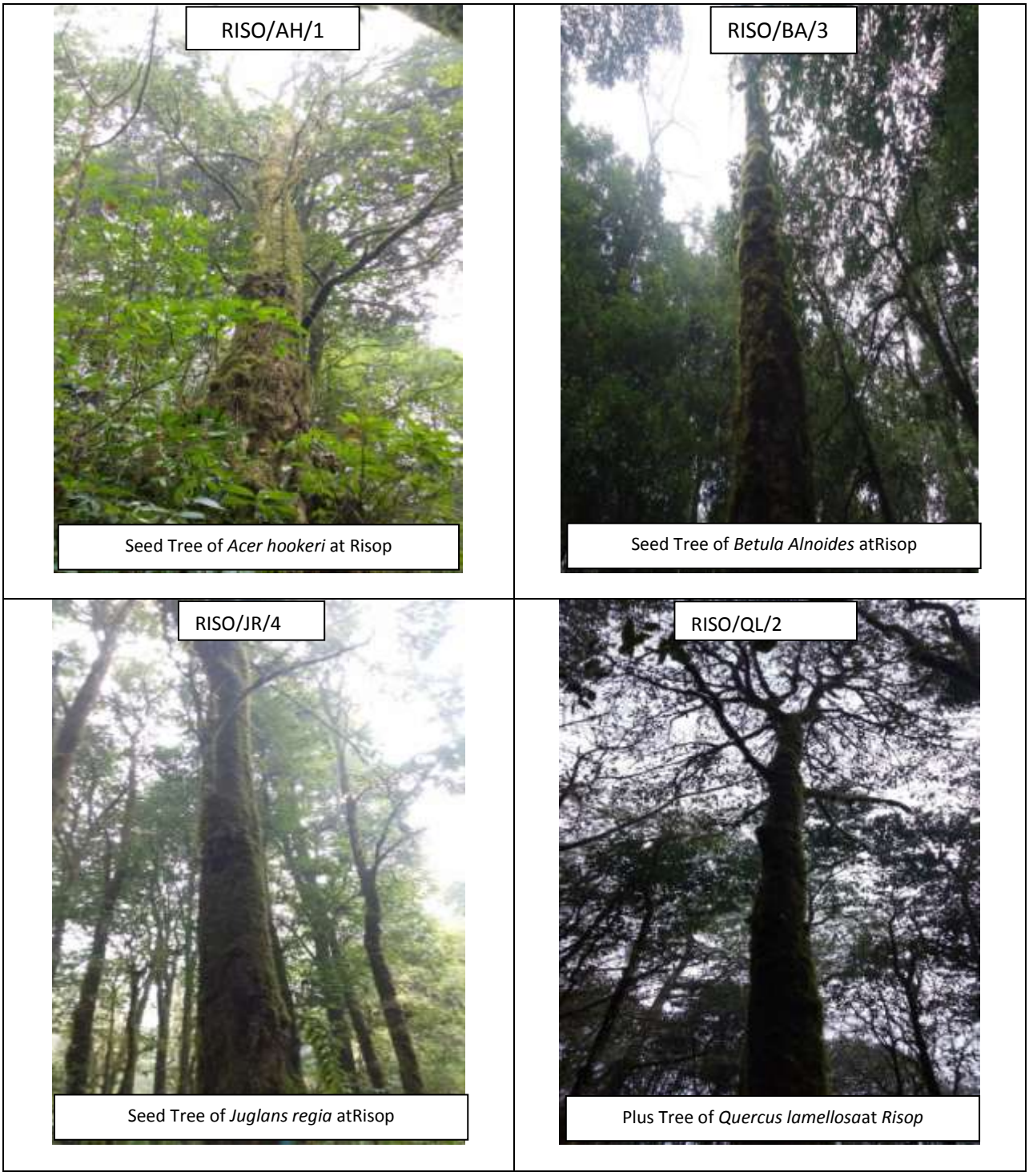


Fig. A.3.C.2 Glimpse of Existing Candidate Plus Trees in Darjeeling Wildlife Division

A.3.D Kalimpong Division

In the division only plus trees were there as per the list provided by the State Forest Department, West Bengal. Out of 258 plus trees, 159 trees were traceable in the field (Table A.3.D.1).

Table A.3.D.1 Abstract of Plus Trees in Kalimpong Division

Sl No.	Species Name	Total no. of trees as per SFD Records	New trees beyond the records	No. of trees evaluated	No. of trees not traceable	Total trees	Balance Plants to be evaluated
1.	*Acer campbellii*	4	0	4	0	4	0
2.	*Acer thomsonii*	2	0	0	2	2	0
3.	*Acrocarpusfraxinifolius*	3	0	0	3	3	0
4.	*Ailanthus grandis*	14	0	5	9	14	0
5.	*Alnus nepalensis*	17	0	17	0	17	0
6.	*Amoora wallichii*	8	0	3	5	8	0
7.	*Anthocephalus cadamba*	1	0	1	0	1	0
8.	*Beilschmiedia roxburghiana*	6	0	6	0	6	0
9.	*Betula alnoides*	6	0	6	0	6	0
10.	*Bischofia javanica*	2	0	2	0	2	0
11.	*Bombax ceiba*	4	0	2	2	4	0
12.	*Bucklandia populnea*	6	0	6	0	6	0
13.	*Canarium sikkimensis*	1	0	0	1	1	0
14.	*Castanopsis tribuloides*	2	0	0	2	2	0
15.	*Chukrasia tabularis*	5	0	2	3	5	0
16.	*Cinnamomum cecidodaphne*	15	0	15	0	15	0
17.	*Duabanga indica*	9	0	5	4	9	0
18.	*Dysoxylum procerum*	18	0	6	12	18	0
19.	*Elaeocarpus sikkimensis*	2	0	2	0	2	0
20.	*Gmelina arborea*	6	0	5	1	6	0
21.	*Juglans regia*	2	0	2	0	2	0
22.	*Knema angustifolia*	1	0	1	0	1	0
23.	*Lagerstroemia hypoleuca*	6	0	3	3	6	0
24.	*Lagerstroemiaflos reginae*	13	0	3	10	13	0
25.	*Litsea salicifolia*	3	0	0	3	3	0
26.	*Machilus gammieana*	2	0	2	0	2	0

27.	*Machilus edulis*	1	0	1	0	1	0
28.	*Michelia cathcartii*	4	0	4	0	4	0
29.	*Michelia champaca*	2	0	1	1	2	0
30.	*Michelia excelsa*	9	0	8	1	9	0
31.	*Michelia lanuginose*	6	0	6	0	6	0
32.	*Nassa javanica*	5	0	5	0	5	0
33.	*Polyalthia simiarum*	1	0	0	1	1	0
34.	*Phoebeattenuata*	8	0	3	5	8	0
35.	*Pinus petula*	5	0	5	0	5	0
36.	*Populus gamblei*	1	0	0	1	1	0
37.	*Prunus napaulensis*	2	0	2	0	2	0
38.	*Quercus lamellosa*	4	0	4	0	4	0
39.	*Quercus lineata*	5	0	5	0	5	0
40.	*Schima wallichii*	8	0	1	7	8	0
41.	*Shorea robusta*	1	0	1	0	1	0
42.	*Tectona grandis*	12	0	2	10	12	0
43.	*Terminalia bellirica*	1	0	1	0	1	0
44.	*Terminalia crenulata*	11	0	6	5	11	0
45.	*Terminalia myriocarpa*	8	0	6	2	8	0
46.	*Toona ciliata*	3	0	0	3	3	0
47.	*Tsuga brunoniana*	3	0	0	3	3	0
	Total	**258**	**0**	**159**	**99**	**258**	**0**

A.3.D.1 Direct Rejection of plus trees in the field on the basis of phenotypic traits

Out of 159 plus trees, 19 trees of 14 species (Table A.3.D.1.1) were discarded from the list on the basis phenotypical characters observed in the field which werenot desirable characters.

Table A.3.D.1.1 Abstract of Plus Trees Rejected in Kalimpong Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Acer campbellii*	1	LAVA-AC-13	Lava-6	Top portion of the tree was damaged.
2	*Alnus nepalensis*	2	MEYO-AN-3	Lava-2	Top portion of the tree was damaged.
			MEYO-AN-17	Paiyong	Tree was along the road.
3	*Beilschmiedia roxburghiana*	1	RISUM-BR-5	Rishom-2	Forking started just from the base of the tree.

4	*Betula alnoides*	3	KAFF-BA-4	Kaffer-4	Forking was observed at 3 meter height.
			RISUM-BA-5	Pemling-1	Tree was along the road.
			KAFF-BA-6	Rishum-1	Forking was observed at middle of tree height
5	*Bombax ceiba*	1	TASHI-BC-6	Tashiding-1	Prominent bend was observed in the upper part of the tree.
6	*Bucklandia populnea*	1	LAVA-BP-6	Lava-2	Forking was observed at middle of tree height
7	*Elaeocarpus sikkimensis*	1	KOLB-ES-4	Kolbong-1	Tree was not straight. Bending at the middle of the tree was observed.
8	*Gmelina arborea*	1	DAMD-GA-3	Damdih NH -31	Forking was observed at middle of tree height
9	*Machilus gammieana*	1	PEML-MG-1	peming-1	Tree was along the road.
10	*Michelia cathcartii*	1	PAKT-MC-3	Paktham	Forking was observed at a height of 5 meter.
11	*Michelia excelsa*	1	ALGA-ME-7	Algarah	Forking was observed at a height of 6 meter.
12	*Michelia lanuginose*	3	LAVA-ML-5	Lava-1	Dead
			RISUM-ML-1	Rishum-1	Dead
			RISUM-ML-2	Rishum-1	Dead
13	*Quercus lineata*	1	KOLB-QL-1	Kolbong-3	Forking was observed at a height of 6 meter.
14	*Terminalia myriocarpa*	1	DULAP-TM-3	Dulapchand	Tree was totally crooked.

A.3.D.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.3.D.2.1 *Acer campbellii*

After rejection of 1 tree, 3 healthy plus trees were remained there in the division. The growth data of trees is presented in Table 3.D.2.1.1

Table A.3.D.2.1.1 Growth data of Plus trees of *Acer campbellii* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KOLB/AC/10	13	7	0.8	4	5	10	7	10
KOLB/AC/11	15	7	1.2	8	9	10	10	10
LAVA/AC/12	16	7	3.1	8	9	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.103, III.104 & III.105) and finally the total weightage score was computed as below:

Table A.3.D.2.1.2 Total Weightage Score of Plus Trees of *Acer campbellii* in Kalimpong Division

Tree No.	Total Weightage Score
KOLB/AC/10	79
KOLB/AC/11	92
LAVA/AC/12	95

Trees are located over an area of 4 hectares, hence all trees will be retained as plus trees.

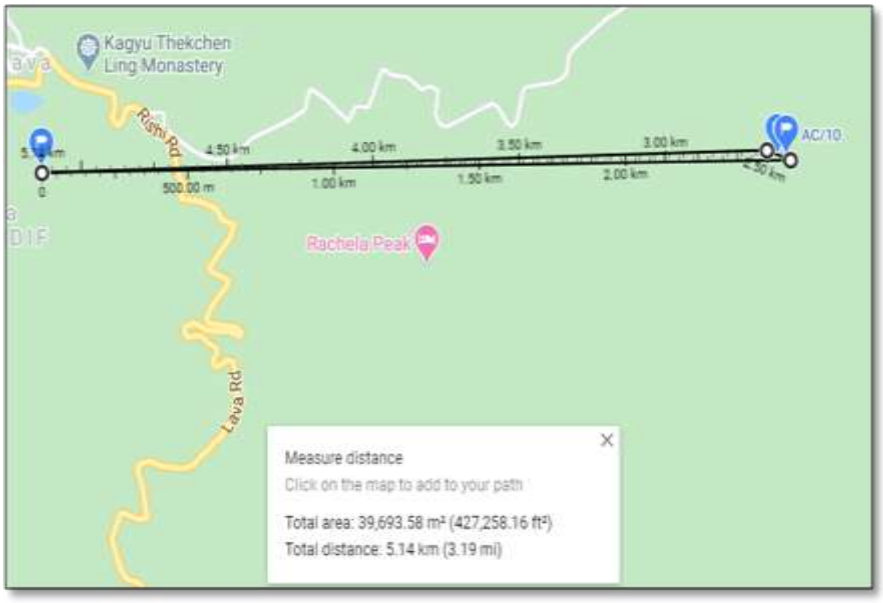


Fig. 3.D.2.1.1 Area and Location of Different Trees of *Acer campbellii*in Kalimpong Division

A.3.D.2.2 *Ailanthus grandis*

5 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.D.2.2.1

Table A.3.D.2.2.1 Growth Data of Plus Trees of *Ailanthus grandis* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/AG/3	24	18	1.85	5	13	10	7	10
MAL/AG/4	26	22	2.65	6	12	10	10	10
TASHI/AG/1	21	15	2.05	6	6	10	7	10
CHURA/AG/1	30	15	2.35	7	6	10	7	10
CHURA/AG/2	30	24	2.8	5	6	10	7	10

After all the analysis of data (Annexure-III, Table No. III.106, III.107 & III.108), the total weightage score of individual tree is mentioned in table A.3.D.2.2.2.

Table 3.D.2.2.2 Total Weightage Score of Plus Trees of *Ailanthus grandis* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/AG/3	78
MAL/AG/4	92.25
TASHI/AG/1	74
CHURA/AG/1	82.5
CHURA/AG/2	93.5

CHURA/AG/1 and CHURA/AG/1 are close to each other (Fig. A.3.D.2.2.1), hence only 1 tree will be retained as plus tree (CHURA/AG/2) and other one will be marked as candidate plus trees. Rests of the trees are in different locations; hence all the 3 trees will be retained as plus trees (MAL/AG/3, MAL/AG/4 and TASHI/AG/1).

Fig. A.3.D.2.2.1 Area and Location of Different Trees of *Ailanthus grandis* in Kalimpong Division

A.3.D.2.3 *Alnus nepalensis*

15 good trees were found in the division after rejection of 2 inferior trees from the list presented in table A.3.D.2.3.1

Table A.3.D.2.3.1 Growth data of Plus Trees of *Alnus nepalensis*in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/AN/4	25	9	2.15	10	16	10	7	10
LAVA/AN/5	28	18	1.6	10	12	10	7	10
MEYO/AN/6	21	15	2.2	10	9	10	7	10
MEYO/AN/7	22	14	2.7	6	8	10	7	10
MEYO/AN/8	20	15	2.15	8	7	10	7	10
MEYO/AN/9	21	15	2.85	3	8	10	7	10
MEYO/AN/10	20	4	2.85	14	12	10	7	10
MEYO/AN/11	18	3.5	1.95	7	6	10	7	10
MEYO/AN/12	20	5	2.4	4	5	10	7	10
MEYO/AN/13	25	11	2.7	14	13	7	10	10
MEYO/AN/14	20	13	2.1	7	6	10	7	10
MEYO/AN/15	22	10	2.6	9	7	10	7	10
MEYO/AN/16	24	19	3.2	14	12	10	7	10
MEYO/AN/18	23	18	2.55	6	6	7	7	10
MEYO/AN/19	20	15	2.2	7	5	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees has been carried out in para B.3.C.1.1.

A.3.D.2.4 *Amoora wallichii*

3 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.D.2.4.1

Table A.3.D.2.4.1 Growth data of Plus Trees of *Amoora wallichii* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straighteness	Stem Form	Infection
MAL/AW/3	28	25	2.65	10	18	10	10	10
MAL/AW/1	20	15	3.5	10	15	10	10	10
MAL/AW/2	28	17	2.65	4	6	7	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.109, III.110 & III.111), the total weightage score was computed as below:

Table 3.D.2.4.2 Total Weightage Score of Plus Trees of *Amoora wallichii* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/AW/3	92
MAL/AW/1	85.75
MAL/AW/2	75

2 treesMAL/AW/2 and MAL/AW/3 are very close to each other, however MAL/AW/1 is quite far (Fig. A.3.D.2.4.1). Hence 2 trees will be retained as plus tree (MAL/AW/1 and MAL/AW/3) and MAL/AW/2 will be marked as candidate plus tree.

Fig. A.3.D.2.4.1 Area and Location of Different Trees of *Amoora wallichii* in Kalimpong Division

A.3.D.2.5 *Anthocephalus cadamba*

Only 1 plus tree was found in the division and was phenotypically superior (Table 3.D.2.5.1). The same will be retained as plus tree.

Table A.3.D. 2.5.1 Growth Data of Plus Trees of *Anthocephalus cadamba* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/AC/1	20	14	1.8	6	10	10	7	10

A.3.D.2.6 *Beilschmiedia roxburghiana*

5 plus trees of concerned species were evaluated after rejection of 1 tree in the division. The growth data of same is presented in Table A.3.D.2.6.1.

Table 3.D.2.6.1 Growth data of Plus Trees of *Beilschmiedia roxburghiana* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/BR/3	31	20	3.65	9	9	10	7	10
LAVA/BR/4	24	17	3.23	16	10	7	7	10
PAKT/BR/1	20	15	2.2	12	7	7	7	10
PAKT/BR/2	19	9	3	12	16	10	10	10
PAKT/BR/4	20	7	2.2	18	20	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.112, III.113 & III.114) and finally the total weightage score was computed as below:

Table A.3.D.2.6.2 Total Weightage Score of Plus Trees of *Beilschmiedia roxburghiana* in Kalimpong Division

Tree No.	Total Weightage Score
LAVA/BR/3	93.75
LAVA/BR/4	83
PAKT/BR/1	73.25
PAKT/BR/2	81
PAKT/BR/4	78

At lava, both trees are far enough, so LAVA/BR/3 and LAVA/BR/4 will be retained as plus trees (Fig. A.3.D.2.6.1). However in second location all the trees are within 1 hectare area (Fig. A.3.D.2.6.1), hence only 1 tree (PAKT/BR/2) will be retained as plus tree and other 2 will be marked as candidate plus tree.

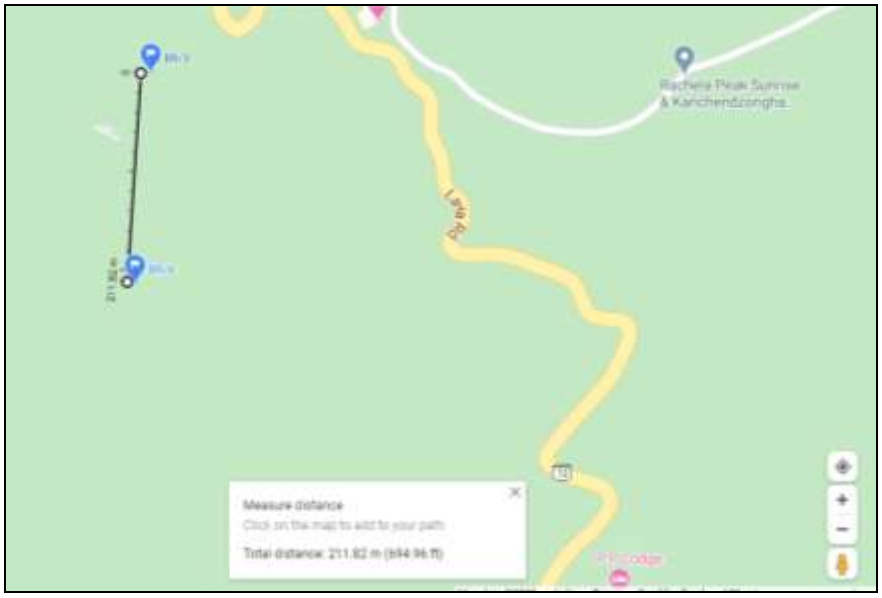


Fig. A.3.D.2.6.1 Area and Location of Different Trees of *Beilschmiedia roxburghiana* at Lavain Kalimpong Division

Fig. A.3.D.2.6.2 Area and Location of Different Trees of *Beilschmiedia roxburghiana at* Other Locationin Kalimpong Division

A.3.D.2.7 *Betula alnoides*

3 plus trees of the species were evaluated after rejection of 3 trees in the division. The growth data of same is presented in Table A.3.D.2.7.1.

Table A.3.D. 2.7.1 Growth data of Plus Trees of *Betula alnoides* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KAFF/BA/7	18	12	1.25	5	8	10	7	10
DULAP/BA/2	21	15.5	2.35	7	10	10	7	10
DULAP/BA/3	20	10	2.9	16	6	10	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.115, III.116 & III.117), the total weightage score was computed as below:

Table A.3.D.2.7.2 Total Weightage Score of Plus Trees of *Betula alnoides*in Kalimpong Division

Tree No.	Total Weightage Score
KAFF/BA/7	74
DULAP/BA/2	92.5
DULAP/BA/3	85

DULAP/BA/2 and DULAP/BA/3 are very close to each other (Fig. A.3.D.2.7.1) and KAFF/BA/7 is in the other location. Hence only two trees KAFF/BA/7 and DULAP/BA/2 will be retained as plus trees and remaining 1 will be marked as candidate plus tree.

Fig. A.3.D.2.7.1 Area and Location of Different Trees of *Betula alnoides*in Kalimpong Division

A.3.D.2.8 *Bischofia javanica*

2 plus trees of concerned species were found in the field of the division. The growth data of same is presented in Table A.3.D.2.8.1

Table A.3.D.2.8.1 Growth data of Plus Trees of *Bischofia javanica* in Kalimpong Division.

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/BJ/1	10	2	1.9	5	15	7	10	10
MAL/BJ/2	8	3	1.53	6	8	7	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.118, III.119 & III.120) and finally the total weightage score was computed as below:

Table A.3.D.2.8.2 Total Weightage Score of Plus Trees of *Bischofia javanica* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/BJ/1	93.25
MAL/BJ/2	91.75

Both the trees are very close to each other, hence only 1 tree will be retained as plus tree (MAL/BJ/1) and remaining will be marked as candidate plus tree.

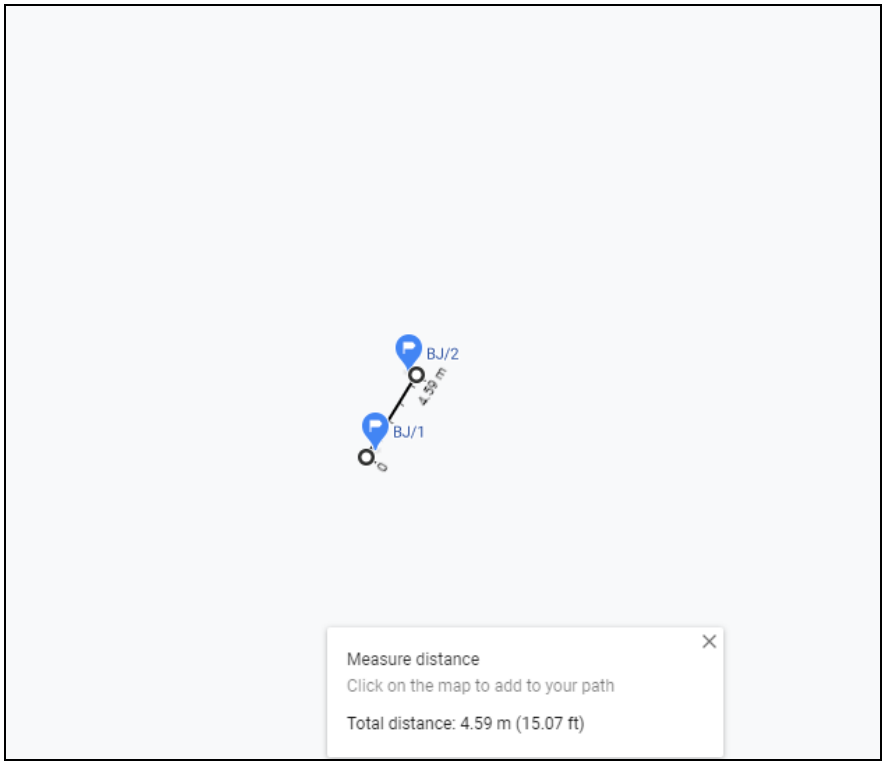


Fig. A.3.D.2.8.1 Area and Location of Different Trees of *Bischofia javanica* in Kalimpong Division

A.3.D.2.9 *Bombax ceiba*

Only 1 plus tree was evaluated after rejection of 1 tree in the division and was phenotypically superior (Table A.3.D.2.9.1). The same will be retained as plus tree.

Table A.3.D.2.9.1 Growth data of Plus Trees of *Bombax ceiba* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TASHI/BC/5	14	9	4	11	9	10	7	10

A.3.D.2.10 *Bucklandia populnea*

5 phenotypically good trees were found in the division after rejection of 1 inferior tree from the list. Growth data of trees is as follow:

TableA.3.D.2.10.1 Growth data of Plus Trees of *Bucklandia populnea* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BOKH/BP/1	17	12	1.1	6	13	10	7	10
PEML/BP/2	25	11	3.2	3	6	10	7	10
PEML/BP/3	27	12	2.7	4	7	10	7	10
PEML/BP/4	25	11	3.2	6	8	10	7	10
PEML/BP/7	14.5	3.5	1.3	6	8	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.3.

A.3.D.2.11. *Chukrasia tabularis*

2 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.D.2.11.1

Table A.3.D.2.11.1 Growth data of Plus Trees of *Chukrasia tabularis* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHUR/CT/1	23	6	2.65	8	9	10	10	10
MAL/CT/1	26	4	3.85	7	20	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.121, III.122 & III.123) and finally the total weightage score was computed as ahead:

Table A.3.D.2.11.2 Total Weightage Score of Plus Trees of *Chukrasia tabularis* in Kalimpong Division

Tree No.	Total Weightage Score
CHUR/CT/1	96.25
MAL/CT/1	97.75

Both trees are in different locations, hence will be retained as plus trees.

A.3.D.2.12 *Cinnamomum cecidodaphne*

15 phenotypically good plus trees were found in the division and evaluated in table A.3.D.2.12.1

Table A.3.D.2.12.1 Growth data of Plus Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SAMS/CC/1	30	5	3.7	12	8	10	10	10
SAMS/CC/2	25	7	2.35	6	15	7	10	10
SAMS/CC/3	20	3	0.95	6	9	10	10	10
SAMS/CC/4	25	8	2.4	8	7	10	7	10
SAMS/CC/5	25	4	2.4	5	6	7	10	10
SAMS/CC/6	28	8	2.55	7	12	7	7	10
SAMS/CC/7	25	4	1.9	7	9	7	10	10
SAMS/CC/8	26	5	2	8	10	7	10	10
SAMS/CC/9	20	4	2.35	7	11	7	7	10
SAMS/CC/10	26	2	2.5	8	10	10	10	10
SAMS/CC/11	22	9	2.3	7	6	7	10	10
SAMS/CC/12	20	4	1.35	6	9	7	7	10
SAMS/CC/13	21	3	1.8	4	6	7	7	10
SAMS/CC/14	20	5	2.3	7	10	7	10	10
SAMS/CC/15	20	6	2.7	7	10	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.4.

A.3.D.2.13 *Duabanga indica*

5 trees of *Duabanga indica* were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.3.D.2.13.1 Growth data of Plus Trees of *Duabanga indica* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TASHI/DI/3	16.5	6	2.45	10	8	10	7	10
BHAL/DI/1	17	11	1.8	7	5	10	7	10
MAL/DI/7	20	16	2.5	4	5	10	10	10
KHUM/DI/1	23	8	2.3	8	7	7	10	10
KHUM/DI/2	25	5	2.3	14	4	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.124, III.125 & III.126) and finally the total weightage score was computed as below:

Table A.3.D.2.13.2 Total Weightage Score of Plus Trees of *Duabanga indica* in Kalimpong Division

Tree No.	Total Weightage Score
TASHI/DI/3	81
BHAL/DI/1	76
MAL/DI/7	94.75
KHUM/DI/1	85.25
KHUM/DI/2	80

KHUM/DI/1 and KHUM/DI/2 are far from each other (Fig. A.3.D.2.13.1) and all others trees are in different locations. Hence all will be retained as plus trees.

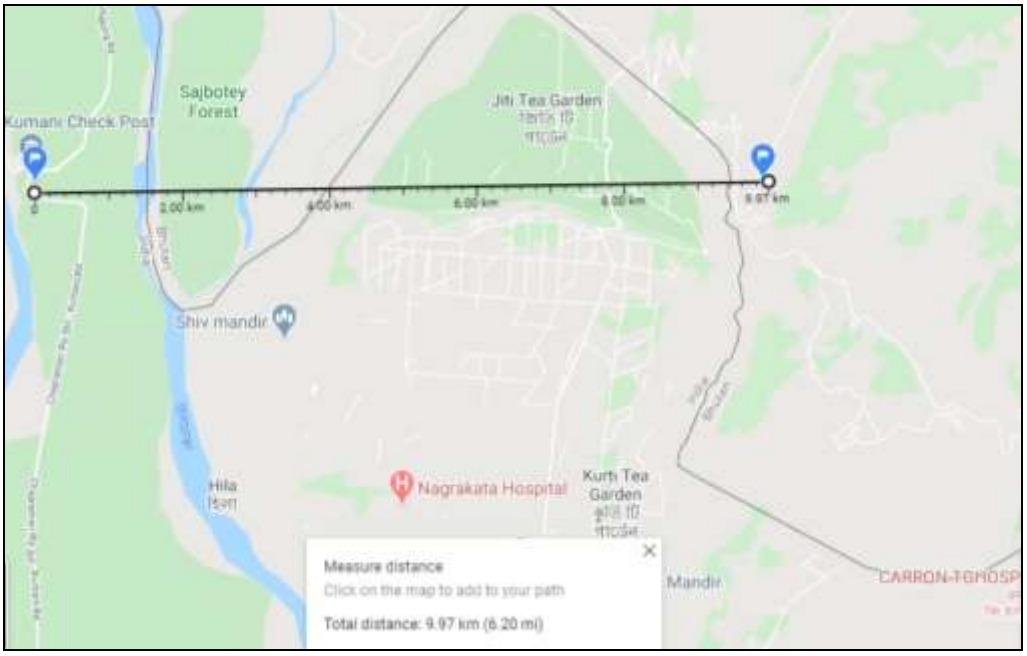


Fig. A.3.D.2.13.1 Area and Location of Different Trees of *Duabanga indica* in Kalimpong Division

A.3.D.2.14. *Dysoxylumprocerum*

In totality 6 trees of *Dysoxylumprocerum*were found in the division having good phenotypic appearance. The growth data of the same is as follow:

Table A.3.D.2.14.1 Growth data of Plus Trees of *Dysoxylumprocerum* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/DP/1	20	3	1.85	10	10	7	7	10
MAL/DP/2	18	4	2.5	8	9	7	7	10
MAL/DP/3	20	2	2.2	8	7	10	10	10
MAL/DP/4	20	5	1.7	7	8	7	10	10
MAL/DP/5	19	3	1.6	6	9	7	10	10
MAL/DP/6	26	4	2.2	12	10	7	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.127, III.128 & III.129), the total weightage score was computed as below:

Table A.3.D.2.14.2 Total Weightage Score of Plus Trees of *Dysoxylumprocerum* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/DP/1	74.25
MAL/DP/2	82
MAL/DP/3	84
MAL/DP/4	81.5
MAL/DP/5	74.25
MAL/DP/6	87

All the trees are located within 1 hectare area (Fig. A.3.D.2.14.1), hence only 1 tree will be retained as plus tree (MAL/DP/6) and remaining will be marked as candidate plus trees.

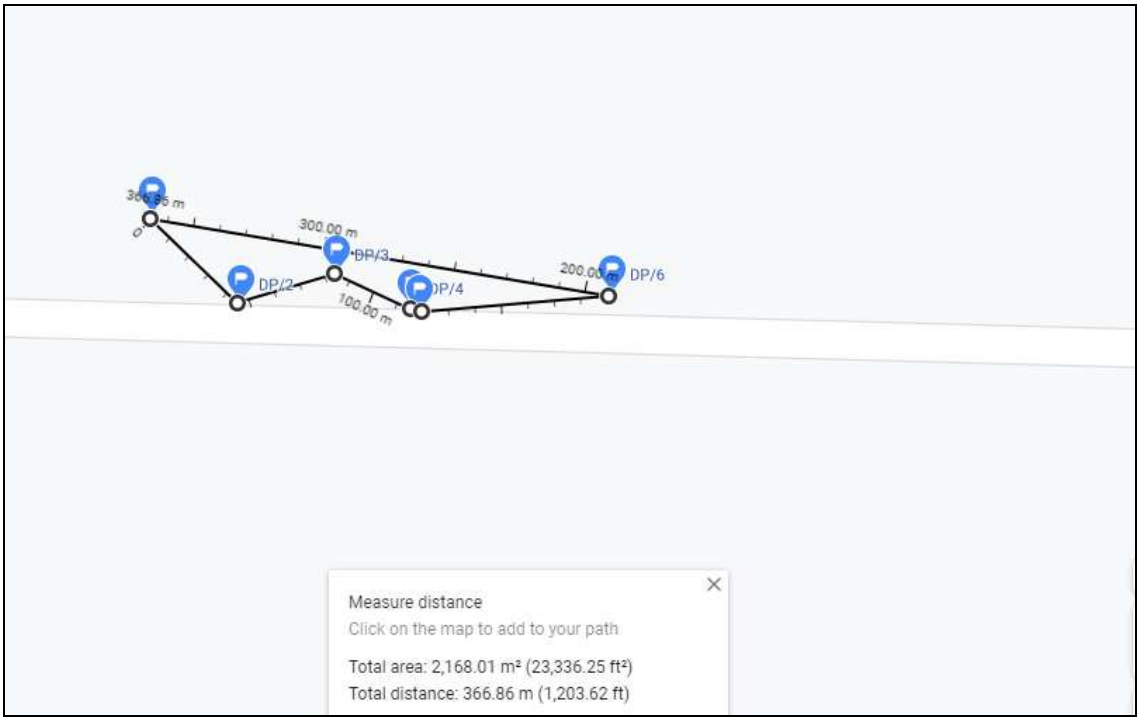


Fig. A.3.D.2.14.1 Area and Location of Different Trees of *Dysoxylumprocerum* in Kalimpong Division

A.3.D.2.15. *Elaeocarpus sikkimensis*

Only 1 tree of *Elaeocarpus sikkimensis* was found in the division after rejection of one tree. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.15.1 Growth data of Plus Trees of *Elaeocarpus sikkimensis* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KOLB/ES/5	19	12	3.55	13	11	10	7	10

A.3.D.2.16 *Gmelina arborea*

4 trees of the species were found phenotypically desirable (Table A.3.D.2.16.1) after the rejection of 1 trees in the division.

Table A.3.D.2.16.1 Growth data of Plus Trees of *Gmelina arborea* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DAMD/GA/1	13	5.5	2.3	7	10	7	7	10
DAMD/GA/2	14	10	2.1	6	7	10	7	10
DAMD/GA/4	15	10.5	1.95	6	7	10	7	10
DAMD/GA/5	14	8	1.95	7	4	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.130, III.131 & III.132) and finally the total weightage score was computed as ahead:

Table A.3.D.2.16.2 Total Weightage Score of Plus Trees of *Gmelina arborea* in Kalimpong Division

Tree No.	Total Weightage Score
DAMD/GA/1	76.75
DAMD/GA/2	88.5
DAMD/GA/4	86
DAMD/GA/5	78.25

All the trees are located within 1 hectare area (Fig. A.3.D.2.16.1), hence only 1 tree will be retained as plus tree (DAMD/GA/2) and remaining will be marked as candidate plus trees.

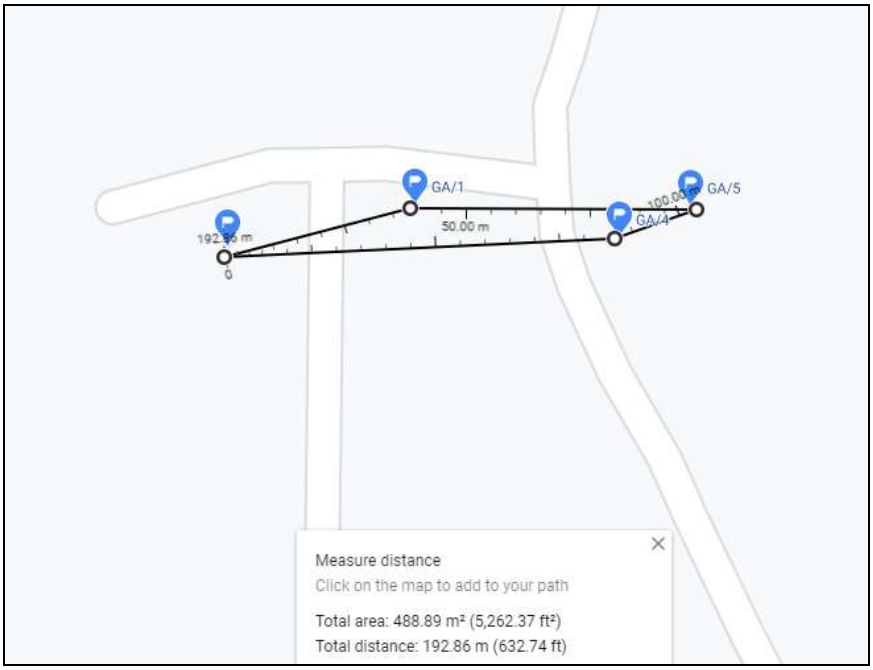


Fig. A.3.D.2.16.1 Area and Location of Different Trees of *Gmelina arborea* in Kalimpong Division

A.3.D.2.17 *Juglans regia*

In totality 2 trees of *Juglans regia*were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.D.2.17.1 Growth data of Plus Trees of *Juglans regia* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RAMD/JR/6	17	4.5	1.8	8	12	10	7	10
RAMD/JR/7	21	15	2	6	10	10	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.133, III.134 & III.135), the total weightage score was computed as below:

Table A.3.D.2.17.2 Total Weightage Score of Plus Trees of *Juglans regia* in Kalimpong Division

Tree No.	Total Weightage Score
RAMD/JR/6	90
RAMD/JR/7	95

Both the trees are very close to each (Fig. A.3.D.2.17.1), hence only RAMD/JR/7 will be retained as plus tree and other will be marked as candidate plus tree.

Fig. A.3.D.2.17.1 Area and Location of Different Trees of *Juglans regia* in Kalimpong Division

A.3.D.2.18. *Knema angustifolia*

Only 1 tree of *Knema angustifolia*was found in the division. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.18.1 Growth data of Plus Trees of *Knema angustifolia*in Kalimpong Division

Tree No.	Quantitative Traits						Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark thickness	Stem Straightness	Stem Form	Infection
RAMD/JR/6	15	8	2.2	15	8	2.2	10	7	10

A.3.D.2.19 *Lagerstroemia flosreginae*

3 trees of *Lagerstroemia flos reginae*were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.3.D.2.19.1 Growth data of Plus Trees of *Lagerstroemia flosreginae* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUM/LF/1	16	6	1.65	7	11	7	7	10
KHUM/LF/2	20	2	1.75	7	7	7	7	10
KHUM/LF/3	21	10	1.8	4	11	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.5.

A.3.D.2.20 *Lagerstroemia hypoleuca*

3 trees of *Lagerstroemia hypoleuca* were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.3.D.2.20.1 Growth data of Plus Trees of *Lagerstroemia hypoleuca* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/LH/1	18	12	1.9	6	7	10	7	10
MAL/LH/2	23	5	2	8	12	10	7	10
MAL/LH/3	22	15	1.75	6	12	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.136, III.137 & III.138) and finally the total weightage score was computed as below:

Table A.3.D.2.20.2 Total Weightage Score of Plus Trees of *Lagerstroemia hypoleuca* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/LH/1	81.5
MAL/LH/2	87.5
MAL/LH/3	83.5

All trees are within 1 hectare area (Fig. A.3.D.2.20.1), hence only MAL/LH/2 will be retained as plus tree and remaining 2 will be marked as candidate plus trees.

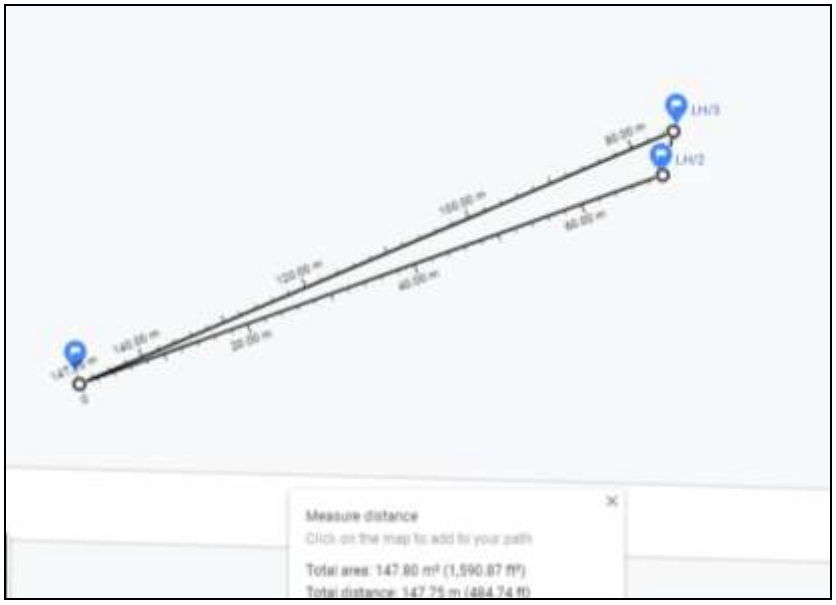


Fig. A.3.D.2.17.1 Area and Location of Different Trees of *Lagerstroemia hypoleuca* in Kalimpong Division

A.3.D.2.21 *Machilus gammieana*

Only 1 tree of *Machilus gammieana* was found in the division after rejection of 1 tree.The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.21.1 Growth data of Plus Trees of *Machilus gammieana* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PEML/MG/2	17	10	2.1	7	7	10	7	10

A.3.D.2.22 *Machilus edulis*

Only 1 tree of *Machilus edulis* was found in the division. the tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.22.1 Growth data of Plus Trees of *Machilus edulis*in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/ME/4	16	4	1.9	16	13	10	10	10

A.3.D.2.23 *Michelia cathcartii*

In totality 4 trees of *Michelia cathcartii* were found in the division with one tree rejection. The growth data of the same is as follow:

Table A.3.D.2.23.1 Growth data of Plus Trees *Michelia cathcartii* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/MC/6	26	10	2.75	20	22	10	10	10
PAKT/MC/4	14	5	1.9	8	12	10	10	10
PAKT/MC/5	20	4.5	2	16	15	10	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.139, III.140 & III.141), the total weightage score was computed as below:

Table A.3.D.2.23.2 Total Weightage Score of Plus Trees of *Michelia cathcartii* in Kalimpong Division

Tree No.	Total Weightage Score
LAVA/MC/6	100
PAKT/MC/4	76
PAKT/MC/5	75.5

PAKT/MC/4 and PAKT/MC/5 are very close to each other (Fig. A.3.D.2.23.1) and LAVA/MC/6 is in the different location. Hence LAVA/MC/6 and PAKT/MC/4 will be retained as plus trees and PAKT/MC/5 will be marked as candidate plus tree.

Fig. A.3.D.2.23.1 Area and Location of Different Trees of *Michelia cathcartii* in Kalimpong Division

A.3.D.2.24 *Michelia champaca*

Only 1 tree of *Michelia champaca* was found in the division. The growth data of the same is as follow:

Table A.3.D.2.24.2 Growth data of Plus Trees *Michelia champaca* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHUR/MC/1	25	14	1.95	5	11	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.6.

A.3.D.2.25 *Michelia excelsa*

In totality 7 good trees of *Michelia excelsa* were found in the division and one rejection was there. The growth data of the same is as follow:

Table A.3.D.2.25.1 Growth data of Plus Trees *Michelia excelsa* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/ME/1	15	9	1.2	6	10	10	7	10
LAVA/ME/2	17	6	1.45	6	12	10	7	10
LAVA/ME/3	18	11	1.25	6	13	10	7	10
LAVA/ME/4	14	10	1.1	6	12	10	7	10
LAVA/ME/5	17	11	1.1	7	9	10	7	10
LAVA/ME/8	16	10	0.9	4	10	7	7	10
LAVA/ME/6	12	5.5	1.3	5	13	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.7.

A.3.D.2.26 *Michelia lanuginose*

3 trees of the species were found phenotypically desirable (Table 3.D.2.26.1) after the rejection of 3 trees in the division.

Table A.3.D.2.26.1 Growth data of Plus Trees *Michelia lanuginose* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/ML/3	19	5	1.66	4	16	10	10	10
LAVA/ML/4	19	5.5	1.65	9	7	10	7	10
LAVA/ML/6	20	2	2	12	11	10	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.142, III.143 & III.144), the total weightage score was computed as below:

Table A.3.D.2.26.2 Total Weightage Score of Plus Trees of *Michelia lanuginose* in Kalimpong Division

Tree No.	Total Weightage Score
LAVA/ML/3	85
LAVA/ML/4	80.25
LAVA/ML/6	91.5

LAVA/ML/3 and LAVA/ML/4 are close to each other (Fig. A.3.D.2.26.1), hence LAVA/ML/3 will be retained as plus trees, however LAVA/ML/6 is in different location and will be retained as plus tree. LAVA/ML/4 will be marked as candidate plus tree.

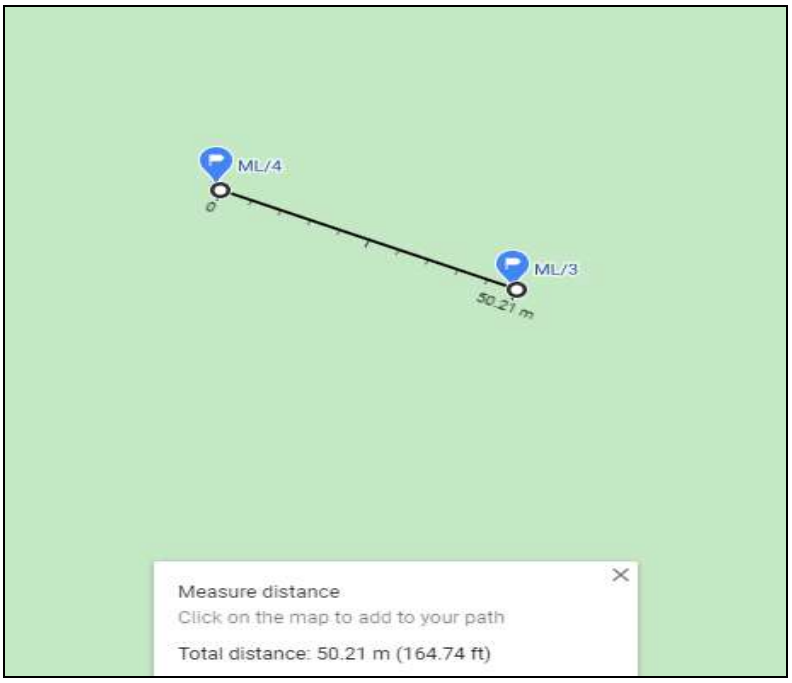


Fig. A.3.D.2.26.1 Area and Location of Different Trees of *Michelia lanuginose* in Kalimpong Division

A.3.D.2.27 *Nyssa javanica*

In totality 5 trees of *Nyssa javanica* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.D.2.27.1 Growth data of Plus Trees *Nyssa javanica*in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KOLB/NJ/10	23	12	2.7	8	13	10	10	10
PEML/NJ/7	19	15	1.7	4	6	7	7	10
PEML/NJ/8	21	16	1.6	9	10	10	10	10
LAVA/NJ/9	21	10.5	2.05	8	8	7	7	10
LAVA/NJ/10	16	10	1.45	8	7	10	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.145, III.146 & III.147) and the total weightage score was computed as below:

Table A.3.D.2.27.2 Total Weightage Score of Plus Trees of *Nyssa javanica* in Kalimpong Division

Tree No.	Total Weightage Score
KOLB/NJ/10	93.75
PEML/NJ/7	80
PEML/NJ/8	90
LAVA/NJ/9	76.5
LAVA/NJ/10	72.5

2 Trees in Pemling (Fig. 3.D.2.27.1) and 2 in Lava (Fig. A.3.D.2.27.2) are very close to each other, hence only 1 tree from each site will be retained as plus trees. However KOLB/NJ/10 is in different location. Hence KOLB/NJ/10, PEML/NJ/8 and LAVA/NJ/9 will be retained as plus trees and rest will be marked as candidate plus trees.

Fig. A.3.D.2.27.1 Area and Location of Different Trees of *Nyssa javanica* at Pemling in Kalimpong Division

Fig. A.3.D.2.27.2 Area and Location of Different Trees of *Nyssa javanica* at Lava in Kalimpong Division

A.3.D.2.28 *Phoebe attenuate*

3 trees of *Phoebe attenuate*were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.3.D.2.28.1 Growth data of Plus Trees *Phoebe attenuate* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/PA/1	16	6	2	10	15	10	10	10
MAL/PA/2	16	4	1.75	7	6	7	7	10
MAL/PA/3	15	5	1.4	8	12	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.148, III.149 & III.150) and finally the total weightage score was computed as below:

A.3.D.2.28.2 Total Weightage Score of Plus Trees of *Phoebe attenuate* in Kalimpong Division

Tree No.	Total Weightage Score
MAL/PA/1	100
MAL/PA/2	77
MAL/PA/3	76.5

All the trees are within 1 hectare area (Fig. 3.D.2.28.1), hence only 1 tree will be retained as plus tree (MAL/PA/1) and remaining will be marked as candidate plus trees.

Fig. A.3.D.2.28.1 Area and Location of Different Trees of *Phoebe attenuate* in Kalimpong Division

A.3.D.2.29 *Pinus petula*

5 trees of *Pinus petula* were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table 3.D.2.29.1 Growth data of Plus Trees of***Pinus petula*in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
LAVA/PP/1	22	10	3.1	14	17	10	10	10
LAVA/PP/2	19	12	1.65	13	15	10	10	10
LAVA/PP/3	21	11	1.5	8	8	10	7	10
BOKH/PP/4	14	11	1.45	6	12	10	7	10
BOKH/PP/5	15	11	1.65	7	8	10	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.151, III.152 & III.153) and finally the total weightage score was computed as below:

Table A.3.D.2.29.2 Total Weightage Score of Plus Trees of *Pinus petula* in Kalimpong Division

Tree No.	Total Weightage Score
LAVA/PP/1	92
LAVA/PP/2	90.25
LAVA/PP/3	81.5
BOKH/PP/4	76
BOKH/PP/5	75.5

At lava all the three trees are within 1 hectare area (Fig. A.3.D.2.29.1), so only LAVA/PP/1 will be retained as plus tree and LAVA/PP/2 and LAVA/PP/3 will be marked as candidate plus trees. At Bokhim location (Fig. A.3.D.2.29.2) both trees are close to each other, hence BOKH/PP/4 will be retained as plus tree and rest as candidate plus tree.

Fig. A.3.D.2.29.1 Area and Location of Different Trees of *Pinus petula* at Lava in Kalimpong Division

Fig. A.3.D.2.29.2 Area and Location of Different Trees of *Pinus petula* at Bokhim in Kalimpong Division

A.3.D.2.30 *Prunus napaulensis*

In totality 2 trees of *Prunus napaulensis* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.D.2.30.1 Growth data of Plus Trees of*Prunus napaulensis* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DAMS/PN/1	22	14	1.3	6	8	10	10	10
DAMS/PN/2	23	16	1.45	8	10	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.154, III.155 & III.156) and finally the total weightage score was computed as below:

Table A.3.D.2.30.2 Total Weightage Score of Plus Trees of *Prunus napaulensis* in Kalimpong Division

Tree No.	Total Weightage Score
DAMS/PN/1	94
DAMS/PN/2	100

Both the trees are very close to each other (Fig. A.3.D.2.30.1), hence only DAMS/PN/2 will be retained as plus tree and other will be marked as candidate plus tree.

Fig. A.3.D.2.30.1 Area and Location of Different Trees of *Prunus napaulensis* in Kalimpong Division

A.3.D.2.31 *Quercus lamellosa*

In totality 4 trees of *Quercus lamellose* were found in the division having good phenotypic appearance. The growth data of the same is as follow:

Table A.3.D.2.31.1 Growth data of Plus Trees of***Quercus lamellosa*** **in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KOLB/QL/6	18	8	3.9	10	6	10	10	10
KOLB/QL/7	16	10	2.1	7	12	10	10	10
PAKT/QL/6	22	2.5	3.4	12	16	10	7	10
PAKT/QL/7	18	4	3.5	18	20	10	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.157, III.158 & III.159), the total weightage score was computed as below:

TableA.3.D.2.31.2 Total Weightage Score of Plus Trees of *Quercus lamellosa* in Kalimpong Division

Tree No.	Total Weightage Score
KOLB/QL/6	91.75
KOLB/QL/7	84.5
PAKT/QL/6	84.75
PAKT/QL/7	87.5

At Koblong location (Fig. A.3.D.2.31.1) both the trees are very far from each other, henceKOLB/QL/6 and KOLB/QL/7 will be retained as plus trees. However in theother location (Fig. A.3.D.2.31.2) the trees are within 60 meter distance, hence PAKT/QL/7 will be retained as plus tree and PAKT/QL/6 will be marked as candidate plus tree.

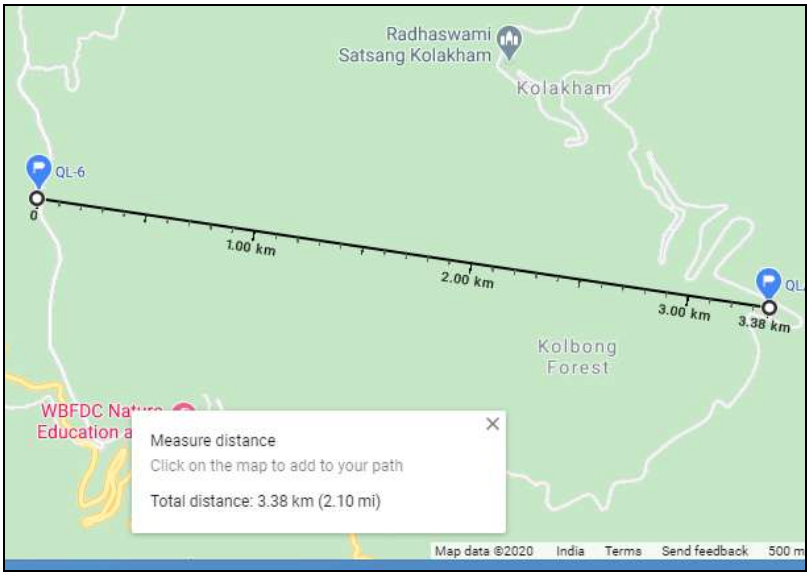


Fig. A.3.D.2.31.1 Area and Location of Different Trees of *Quercus lamellosa* at Koblong Location in Kalimpong Division

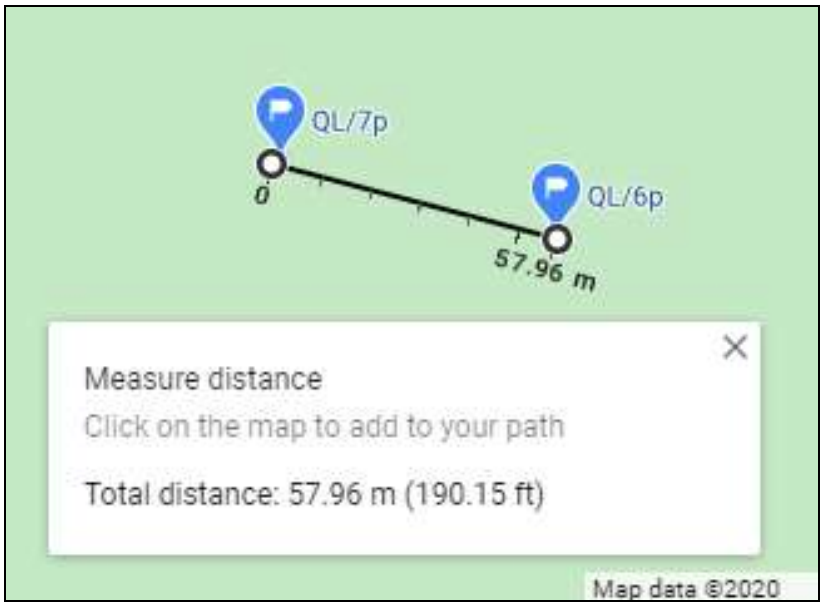


Fig. A.3.D.2.31.2 Area and Location of Different Trees of *Quercus lamellosa* at Paktham Location in Kalimpong Division

A.3.D.2.32 *Quercus lineate*

4 trees of the species were found phenotypically desirable (Table A.3.D.2.32.1) after the rejection of 1 tree in the division.

Table A.3.D.2.32.1 Growth data of Plus Treesof*Quercus lineata* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KOLB/QL/4	20	10	2.35	14	15	10	10	10
KOLB/QL/5	15	8	1.25	6	8	7	10	10
RACH/QL/2	14	4.5	1.55	10	12	10	7	10
RACH/QL/3	21	4	1.5	14	16	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.160, III.161 & III.162) and finally the total weightage score was computed as below:

Table A.3.D.2.32.2 Total Weightage Score of Plus Trees of *Quercus lineata* in Kalimpong Division

Tree No.	Total Weightage Score
KOLB/QL/4	100
KOLB/QL/5	77.5
RACH/QL/2	74.5
RACH/QL/3	86

At Koblong, both trees are located far from each other (Fig. A.3.D.2.32.1), hence KOLB/QL/4 and KOLB/QL/5 will be retained as plus trees. However at Rachela trees are closely located, hence only RACH/QL/3 will be retained a plus tree and RACH/QL/2 will be marked as candidate plus tree.

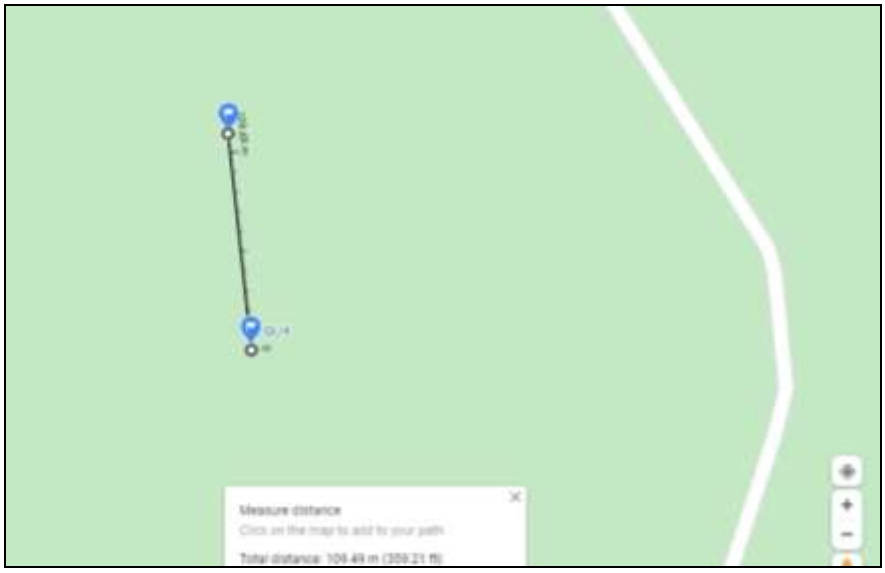


Fig. A.3.D.2.32.1 Area and Location of Different Trees of *Quercus lineata* at Kolbong in Kalimpong Division

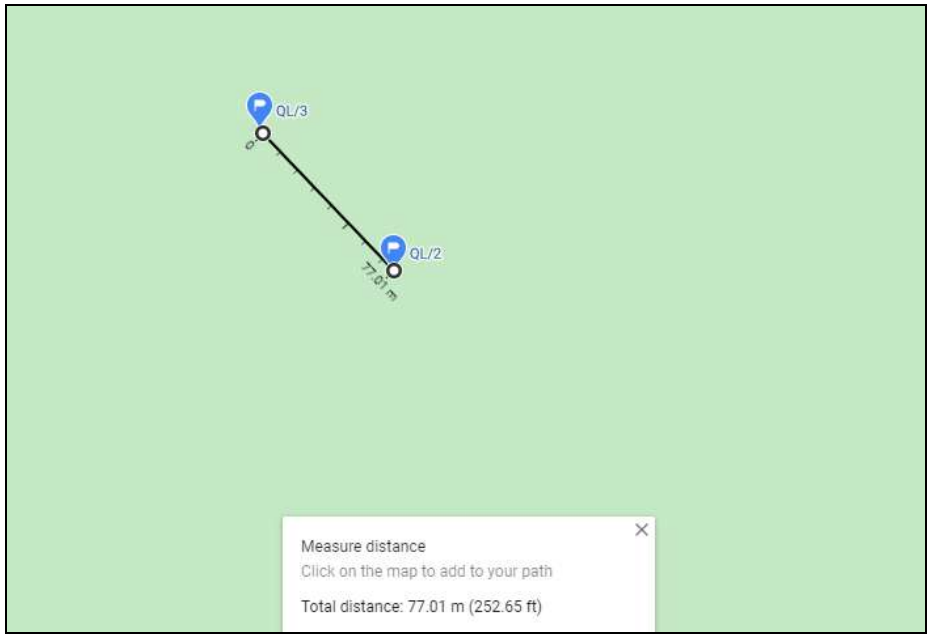


Fig. A.3.D.2.32.1 Area and Location of Different Trees of *Quercus lineata* at Rachela in Kalimpong Division

A.3.D.2.33 *Schima wallichii*

Only 1 tree of *Schima wallichii* was found in the division. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.33.1 Growth data of Plus Tree of***Schima wallichii*** **in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAL/SW/1	26	10	2.2	6	10	7	7	10

A.3.D.2.34 *Shorea robusta*

Only 1 tree of *Shorea robusta* was found in the division. The growth data of the same is as follow:

Table A.3.D.2.34.1 Growth data of Plus Trees of***Shorea robusta*** **in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CHURA/SR/1	30	22	3	7	11	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.9.

A.3.D.2.35 *Tectona grandis*

In totality 2 trees of *Tectona grandis* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.D.2.35.1 Growth data of Plus Trees of***Tectona grandis*in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUM/TG/1	27	3	1.9	5	11	10	7	10
KHUM/TG/2	28	2	1.9	5	13	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.10.

A.3.D.2.36 *Terminalia bellirica*

Only 1 plus tree was found in the division. The tree was phenotypically superior without any rejection, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.D.2.36.1 Growth data of Plus Treesof*Terminalia bellirica* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUM/TB/1	22	9	1.6	5	9	7	7	10

A.3.D.2.37 *Terminalia crenulata*

6 trees of *Terminalia crenulata* were observed in the division. No rejection was there. The growth data of the plus trees is as follow:

Table A.3.D.2.37.1 Growth data of Plus Trees of***Terminalia crenulata*** **in Kalimpong Division**

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUM/TT/1	20	5	1.95	6	9	7	7	10
KHUM/TT/2	22	12	1.75	5	6	10	7	10
KHUM/TT/3	25	4	1.7	6	7	7	10	10
KHUM/TT/4	23	6	2.1	5	8	10	10	10
KHUM/TT/5	19	12	1.3	7	9	10	7	10
KHUM/TT/6	19	5	1.28	4	6	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.163, III.164 & III.165) and finally the total weightage score was computed as below:

Table A.3.D.2.37.2 Total Weightage Score of Plus Trees of *Terminalia crenulata* in Kalimpong Division

Tree No.	Total Weightage Score
KHUM/TT/1	76
KHUM/TT/2	86.5
KHUM/TT/3	81.75
KHUM/TT/4	91
KHUM/TT/5	80.75
KHUM/TT/6	66.75

The trees are distributed over a large area (A.3.D.2.37.1), hence all will be retained as plus trees.

Fig. A.3.D.2.37.1 Area and Location of Different Trees of *Terminalia crenulata* in Kalimpong Division

A.3.D.2.38 *Terminalia myriocarpa*

5 trees of the species were found phenotypically desirable (Table 3.D.2.38.1) after the rejection of 1 trees in the division.

Table A.3.D.2.38.1 Growth data of Plus Treesof*Terminalia myriocarpa* in Kalimpong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DULAP/TM/1	17	11	3.2	13	14	10	10	10
DULAP/TM/2	20	2.5	4	16	15	10	7	10
DULAP/TM/4	18	5	3.5	18	15	10	10	10
MAL/TM/1	19	4	2	9	8	7	10	10
MAL/TM/14	18	10	2	7	6	10	7	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.C.1.11.

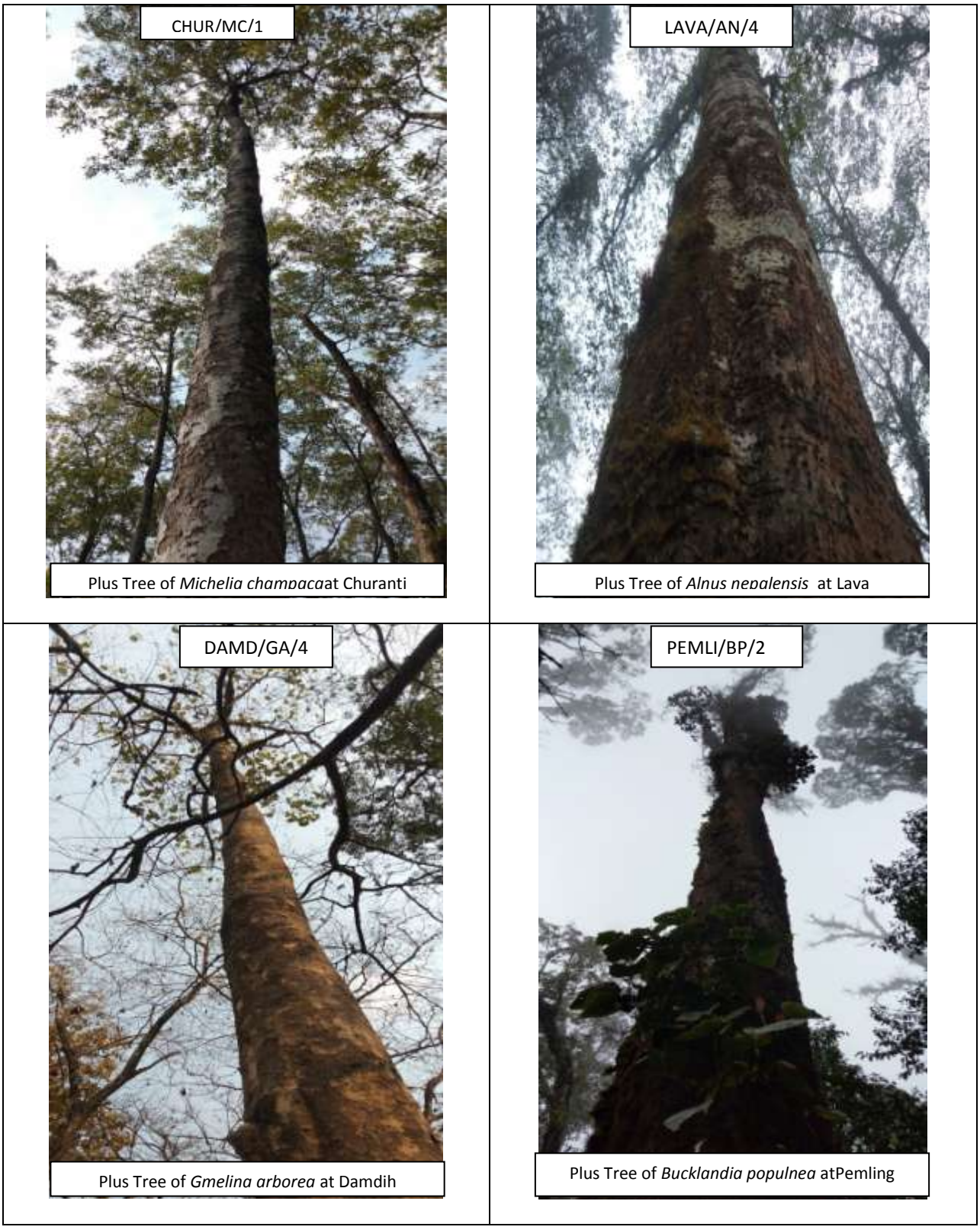


Fig. A.3.D.1 Glimpse of Existing Plus Trees in Kalimpong Division

A.3.E Kurseong Division

In the division only plus trees were there as per the list provided by the State Forest Department, West Bengal. Out of 88 plus trees, 60trees were traceable in the field (Table A.3.E.1).

TableA.3. E.1 Abstract of Plus Trees in Kurseong Division

Sl No.	Species Name	Total no. of Plant as per SFD Records	New trees beyond the records	No. of Plant evaluated	No. of plant not traceable	Total Plant Covered	Balance Plants to be evaluated
a	b	c	d	e	f	g (e+ f)	h
1.	*Acacia catechu*	2	0	0	2	2	0
2.	*Acrocarpus fraxinifolius*	5	0	2	3	5	0
3.	*Albizzia lebbeck*	2	0	1	1	2	0
4.	*Albizzia procera*	2	0	1	1	2	0
5.	*Amoorawallichii*	1	0	1	0	1	0
6.	*Artocarpus chaplasha*	4	0	2	2	4	0
7.	*Bischofia javanica*	3	0	2	1	3	0
8.	*Cedrella toona*	8	0	6	2	8	0
9.	*Chukrasia tabularis*	4	0	1	3	4	0
10.	*Cinnamomum cecidodaphne*	5	0	5	0	5	0
11.	*Dalbergia latifolia*	6	0	0	6	6	0
12.	*Dalbergia sissoo*	4	0	0	4	4	0
13.	*Duabanga indica*	2	0	2	0	2	0
14.	*Emblica officinalis*	2	0	0	2	2	0
15.	*Gmelinaarborea*	5	0	5	0	5	0
16.	*Michelia champaca*	3	0	2	1	3	0
17.	*Nyssa javanica*	10	0	10	0	10	0
18.	*Polyalthiasimiarum*	4	0	4	0	4	0
19.	*Schima wallichii*	2	0	2	0	2	0
20.	*Shorea robusta*	1	0	1	0	1	0
21.	*Tectonagrandis*	8	0	8	0	8	0
22.	*Terminalia bellirica*	1	0	1	0	1	0
23.	*Terminalia myriocarpa*	3	0	3	0	3	0
24.	*Tetrameles nudiflora*	1	0	1	0	1	0
	TOTAL	**88**	**0**	**60**	**28**	**88**	**0**

A.3.E.1 Direct Rejection of Trees in the Field on the basis of phenotypic traits

Out of 60 plus trees, 15 trees of 8 species (Table A.3.E.1.1) were discarded from the list on the basis phenotypical characters observed in the field which were not desirable characters.

TableA.3.E.1.1 Abstract of Plus Trees Rejected in Kurseong Division

Sl No.	Species Name	No. of Trees Rejected	Plus Tree Number	Location	Reason for rejecting/ Discarding
1	*Cedrella toona*	02	UKUN/CT/3	Kundong	Submerged in Teesta river water.
			UKUN/CT/6	Kundong	
2	*Chukrasia tabularis*	01	KUND/CT/3	Uperkundong	Braches started appearing at low height.
3	*Duabanga indica*	01	KUND/DI/3	Kundong	Trunk was not straight, bending from a height of 10 meter was observed.
4	*Gmelina arborea*	02	KUND/GA/8	Kundong	Tree was crooked after a height of 6 meter.
			KUND/GA/9	Kundong	Crooked tree.
5	*Tectona grandis*	04	BAMON/TG/2	Bamonpokhri	Braches started appearing at very low height.
			BAMON/TG/3	Bamonpokhri	Braches started appearing at very low height.
			BAMON/TG/4	Bamonpokhri	Bending from a height of 3 meter was observed.
			BAMON/TG/6	Bamonpokhri	Trunk was not straight, bending from a height of 1 meter was observed.
6	*Terminalia bellirica*	01	BAMON/TB/1	Bamonpokhri	Trunk was not straight
7	*Bischofia javanica*	02	UPAK/BJ/1	Uperkundong	Upper part of trees was damaged.
			UPAK/BJ/2	Uperkundong	
8	*Nyssa javanica*	02	MAHA/NJ/9	Mahaldiram - 1	Top portion was fall down.
			MAHA/NJ/10	Mahaldiram - 1	No branch or crown was there.

A.3.E.2 Analysis of Data

All the trees for a particular species were considered as candidate tree (plus tree as well as Candidate plus trees) and data was analyzed to get desired number of plus trees and Candidate plus trees (depending upon the area).

A.3.E.2.1 *Acrocarpus fraxinifolius*

2 plus trees of concerned species were located in the division. The growth data of same is presented in Table A.3.E. 2.1.

Table A.3.E. 2.1. Growth data of Plus Trees of*Acrocarpus fraxinifolius*in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/AF/1	24	19	2.15	11	6	10	10	10
UKUN/AF/2	24	19	1.5	4	3	10	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.166, III.167 & III.168) and the total weightage score was computed as below:

Table A.3.E.2.1.2 Total Weightage Score of Plus Trees of *Artocarpus fraxinifolius*in Kurseong Division

Tree No.	Total Weightage Score
UKUN/AF/1	100
UKUN/AF/2	93

Both the trees are located far from each other (Fig. A.3.E.2.1.1), hence both will be retained as plus trees.

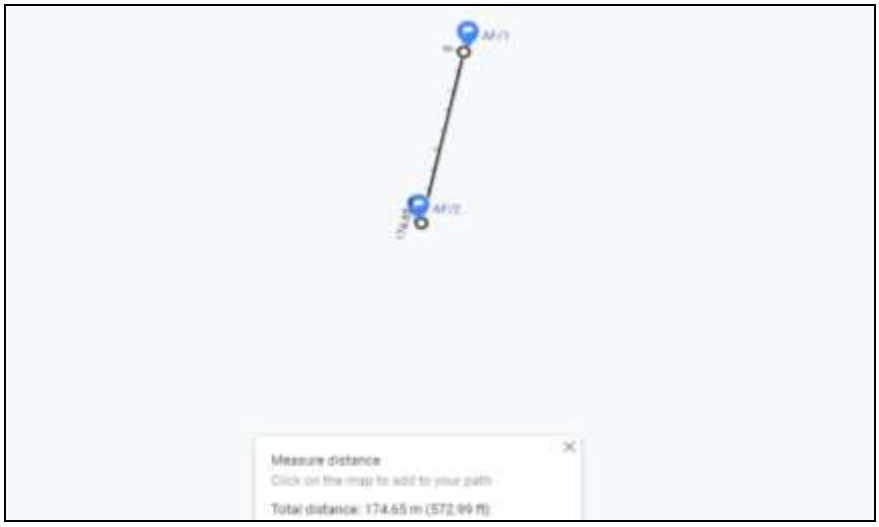


Fig. A.3.E.2.1.1 Area and Location of Different Trees of *Artocarpus fraxinifolius* in Kurseong Division

A.3.E.2.2 Albizia lebbeck

Only 1 tree of *Albizia lebbeck* was found in the division. The tree was phenotypically good, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.E.2.2.1 Growth Data of Plus Trees of *Albizia lebbeck* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/AL/1	17	9	2.1	11	6	7	7	10

A.3.E.2.3 *Albizia procera*

Only 1 tree of *Albizia procera* was found in the division. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

TableA.3. E.2.3.1 Growth data of Plus Trees of *Albizia procera in* Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KALI/AP/2	22	6	1.85	10	8	10	10	10

A.3.E.2.4 *Amoora wallichii*

Only 1 tree of *Amoora wallichii*was found in the division. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.E.2.4.1 Growth data of Plus Tree of *Amoora wallichii* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/AW/4	25	19	2.9	7	11	10	10	10

A.3.E.2.5 *Artocarpus chaplasha*

In totality 2 trees of *Artocarpus chaplasha*were found in the division without any rejection. The growth data of the same is as follow:

Table 3.E.2.5.1 Growth data of Plus Trees of *Artocarpus chaplasha* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/AC/1	21	15	3.15	20	18	7	7	10
UKUN/AC/2	21	14	2.85	16	7	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.169, III.170 & III.171) and finally the total weightage score was computed as below:

Table A.3.E.2.5.2 Total Weightage Score of Plus Trees of *Artocarpus chaplasha*in Kurseong Division

Tree No.	Total Weightage Score
UKUN/AC/1	91
UKUN/AC/2	95.5

The trees are located within 100 meter distance, hence only 1 tree will be retained as plus tree (UKUN/AC/2) and other will be marked as candidate plus tree (UKUN/AC/1).

Fig. A.3.E.2.5.1 Area and Location of Different Trees of *Artocarpus chaplasha* in Kurseong Division

A.3.E.2.6 *Cedrella toona*

4 trees of the species were found phenotypically desirable (Table A.3.E.2.6.1) after the rejection of 2 trees in the division.

TableA.3.E.2.6.1 Growth data of Plus Trees of *Cedrella toona* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/CT/1	20	15	2.2	8	6	7	7	10
UKUN/CT/2	21	14	1.5	7	6	10	10	10
UKUN/CT/4	23	14	2.2	8	10	10	10	10
UKUN/CT/5	15	8	2.35	12	4	7	7	10

After carrying out all the analysis (Annexure-III, TableIII.172, III.173 & III.174), the total weightage score was computed as below:

Table A.3.E.2.6.2 Total Weightage Score of Plus Trees of *Cedrella toona* in Kurseong Division

Tree No.	Total Weightage Score
UKUN/CT/1	84.25
UKUN/CT/2	88.75
UKUN/CT/4	97
UKUN/CT/5	76

All trees are located over a large area (Fig. A.3.E.2.6.1), hence all the trees will be retained as plus trees.

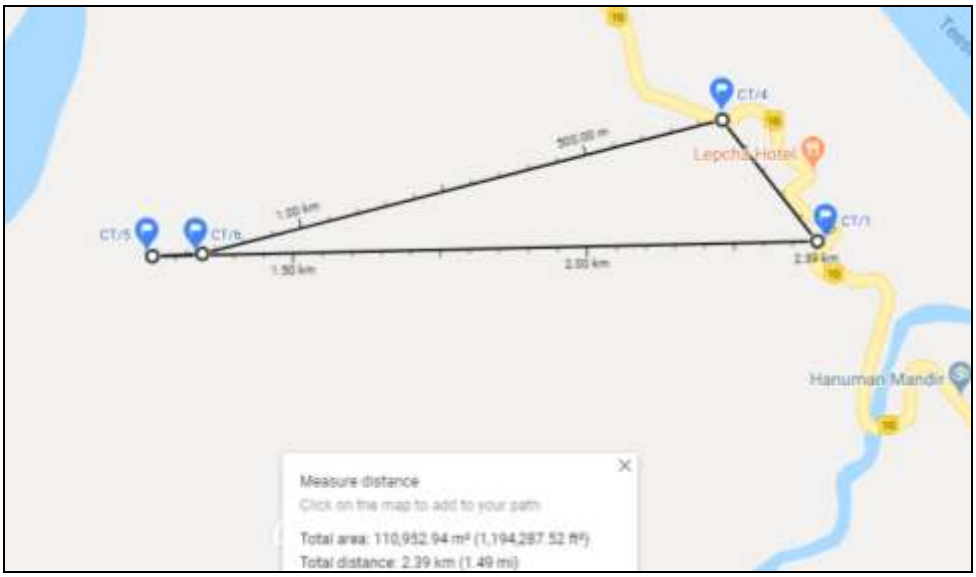


Fig. A.3.E.2.6.1 Area and Location of Different Trees of *Cedrella toona* in Kurseong Division

A.3.E.2.7 *Cinnamomum cecidodaphne*

In totality 5 trees of *Cinnamomum cecidodaphne* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.E.2.7.1 Growth data of Plus Trees of *Cinnamomum cecidodaphne* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/CC/1	24	19	1.9	7	4	10	10	10
UKUN/CC/2	23	17	1.75	6	4	10	10	10
UKUN/CC/3	25	19	2.2	10	8	7	7	10
UKUN/CC/4	24	18	2	13	10	10	10	10
UKUN/CC/5	27	19	2.5	12	7	10	10	10

After giving scores and weightage to each trait (Annexure-III, TableIII.175, III.176 & III.1177) and the total weightage score was computed as below:

Table A.3.E.2.7.2 Total Weightage Score of Plus Trees of *Cinnamomum cecidodaphne* in Kurseong Division

Tree No.	Total Weightage Score
UKUN/CC/1	85.5
UKUN/CC/2	76
UKUN/CC/3	83.25
UKUN/CC/4	85.5
UKUN/CC/5	99.5

The entire trees are located within 1 hectare (Fig. 3.E.2.7.1), hence only 1 tree will be retained as plus tree (UKUN/CC/5) and remaining will be marked as candidate plus trees.

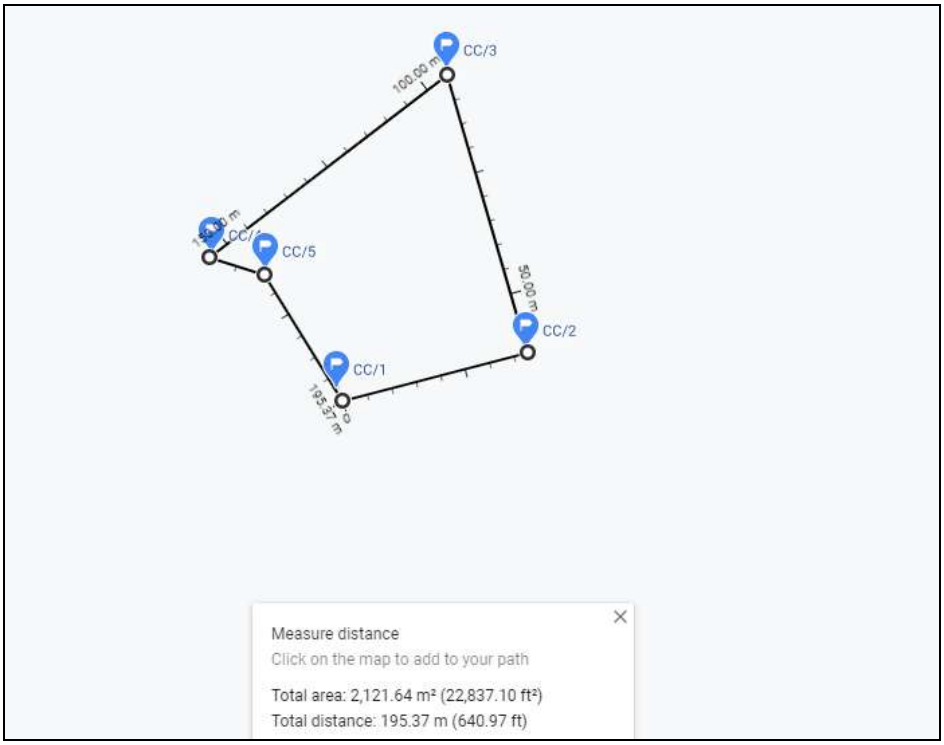


Fig. A.3.E.2.7.1 Area and Location of Different Trees of *Cinnamomum cecidodaphne* in Kurseong Division

A.3.E.2.8 *Duabanga indica*

Only 1 tree of *Duabanga indica* was found in the division after 1 tree rejection. The tree was phenotypically superior, hence will be retained as plus tree. The growth data of the same is as follow:

Table A.3.E.2.8.1 Growth data of Plus Trees of *Duabanga indica*in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUND/DI/4	21	8	2.9	12	4	7	7	10

A.3.E.2.9 *Gmelina arborea*

3 trees of the species were found phenotypically desirable (Table 3.E.2.9.1) after the rejection of 2 trees in the division.

Table A.3.E.2.9.1 Growth data of PlusTrees of*Gmelina arborea* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUND/GA/5	11	2.5	1.9	10	7	10	10	10
KUND/GA/6	18	10	2.2	6	4	7	7	10
KUND/GA/7	16	11	2.3	8	7	7	7	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.178, III.179 & III.180) and finally the total weightage score was computed as below:

Table A.3.E.2.9.2 Total Weightage Score of Plus Trees of *Gmelina arborea* in Kurseong Division

Tree No.	Total Weightage Score
KUND/GA/5	89
KUND/GA/6	89.75
KUND/GA/7	90.75

All the trees are located over a large area, hence all the trees will be retained as plus trees.

Fig. A.3.E.2.9.1 Area and Location of Different Trees of *Gmelina arborea*in Kurseong Division

A.3.E.2.10 *Michelia champaca*

In totality 2 trees of *Michelia Champaca* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.E.2.10.1 Growth data of Plus Tree of *Michelia champaca* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUND/MC/7	22	11	2.4	12	10	10	10	10
KUND/MC/9	22	16	2.7	11	6	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait on the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, TableIII.181, III.182 & III.183) and finally the total weightage score was computed as ahead:

Table A.3.E.2.10.2 Total Weightage Score of plus Trees of *Michelia champaca* in Kurseong Division

Tree No.	Total Weightage Score
KUND/MC/7	96
KUND/MC/9	99.5

Both the trees are located far from each other, hence both trees will be retained as plus trees.

Fig. A.3.E.2.10.1 Area and Location of Different Trees of *Michelia champaca*in Kurseong Division

A.3.E.2.11 *Nyssa javanica*

In totality 8 trees of *Terminalia tomentosa* were found in the division out of 10. The growth data of the same is as follow:

Table A.3.E.2.11.1 Growth data of Plus Trees of *Nyssa javanica* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MAHA/NJ/1	28	20	1.95	18	8	10	10	10
MAHA/NJ/2	24	19	1.5	4	3	10	10	10
MAHA/NJ/3	27	22	1.2	7	6	10	10	10
MAHA/NJ/4	27	14	2	14	9	10	10	10
MAHA/NJ/5	28	24	1.6	8	5	10	10	10
MAHA/NJ/6	26.5	19	2	14	6	7	7	10
MAHA/NJ/7	26	20	1.5	8	6	10	10	10
MAHA/NJ/8	25	21	1.4	10	5	7	7	10

After giving scores and weightage to each trait (Annexure-III, TableIII.184, III.185 & III.186) and the total weightage score was computed as below:

Table A.3.E.2.11.2 Total Weightage Score of Plus Trees of*Nyssa javanica* inKurseong Division

Tree No.	Total Weightage Score
MAHA/NJ/1	95.75
MAHA/NJ/2	82
MAHA/NJ/3	85.75
MAHA/NJ/4	90.25
MAHA/NJ/5	94.5
MAHA/NJ/6	83.25
MAHA/NJ/7	85.75
MAHA/NJ/8	77.25

All trees are located within 1 hectare (Fig. A.3.E.2.11.1), hence only 1 tree will be retained as plus tree (MAHA/NJ/1). Rest will be marked as candidate plus trees except MAHA/NJ/8, which will be rejected from the list.

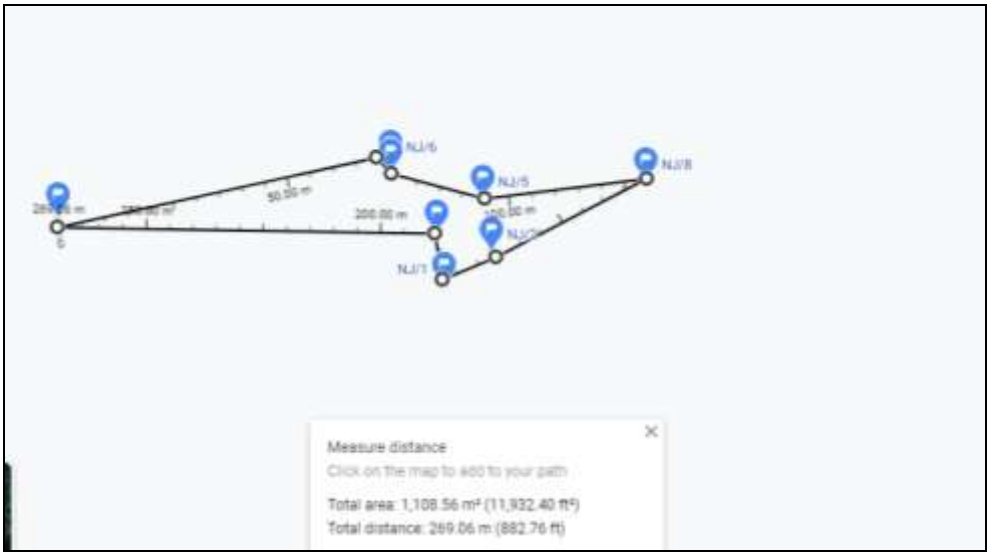


Fig. A.3.E.2.11.1 Area and Location of Different Trees of *Nyssa javanica*in Kurseong Division

A.3.E.2.12 *Polyalthia simiarum*

4 plus trees were located in the division and phenotypically all were good trees. The growth data of same is as follow:

Table A.3.E.2.12.1 Growth data of Plus Trees of *Polyalthia simiarum* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUND/PS/1	20	10	1.2	5	10	7	10	10
KUND/PS/2	19	12	1.1	7	15	10	7	10
KUND/PS/3	24	13	1.1	5	7	7	10	10
KUND/PS/4	21	12	1.1	3	6	10	10	10

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-III, Table III.187, III.188 & III.189) and finally the total weightage score was computed as below:

Table A.3.E.2.12.2 Total Weightage Score of Plus Trees of *Polyalthia simiarum* in Kurseong Division

Tree No.	Total Weightage Score
KUND/PS/1	78.25
KUND/PS/2	79.5
KUND/PS/3	79.75
KUND/PS/4	83.5

All the trees are located within 1 hectare area, hence, only 1 tree will be retained as plus tree (KUND/PS/4) and remaining will be marked as candidate plus trees.

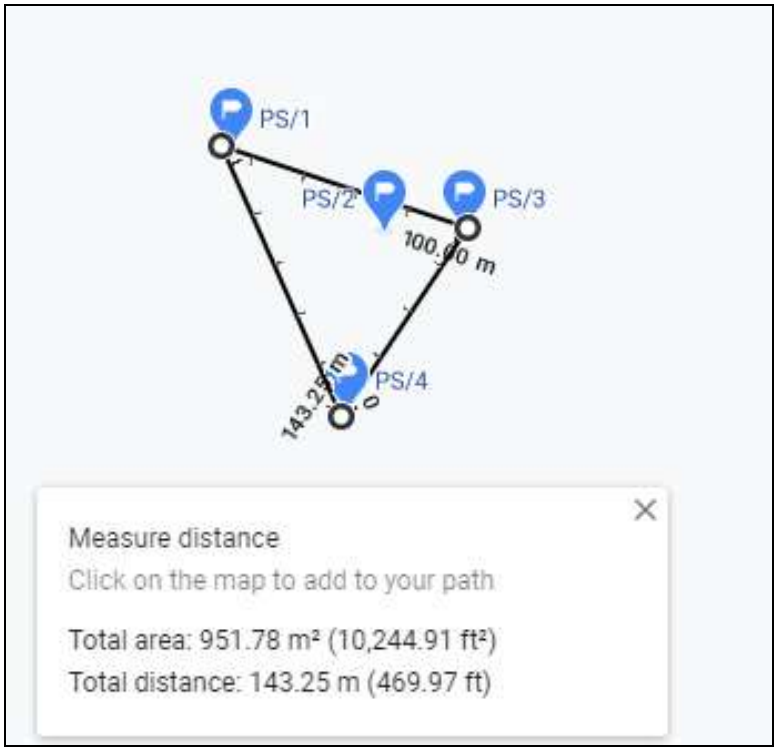


Fig. A.3.E.2.12.1 Area and Location of Different Trees of *Polyalthia simiarum* in Kurseong Division

A.3.E.2.13 *Schima wallichii*

In totality 2 trees of *Schima wallichii* were found in the division without any rejection. The growth data of the same is as follow:

Table A.3.E.2.13.1 Growth data of PlusTrees of*Schima wallichii* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/SW/4	27	3	2.1	9	7	10	10	10
UKUN/SW/5	29	6	3.85	20	12	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.D.1.6.

A.3.E.2.14 *Shorea robusta*

Only 1 tree of *Shorea robusta* was found in the division. The growth data of the same is as follow:

Table A.3.E.2.14.1 Growth data of Plus Tree of *Shorea robusta* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BAMON/SR/2	32	22	3.1	18	8	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.D.1.7.

A.3.E.2.15 *Tectona grandis*

4 trees of the species were found phenotypically desirable (Table A.3.E.2.14.1) after the rejection of 4 trees in the division. All the trees will be retained as candidate plus trees.

TableA.3.E.2.15.1 Growth data of Plus Trees of *Tectona grandis* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BAMON/TG/1	14	11	2.27	10	15	10	10	10
BAMON/TG/5	14	7	2.4	14	18	7	7	10
BAMON/TG/7	15	12	1.95	9	6	7	7	10
BAMON/TG/8	15	12	1.97	6	7	10	10	10

However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.D.1.8.

A.3.E.2.16 *Terminalia myriocarpa*

In totality 3 trees of *Terminalia myriocarpa* were found in the division having good phenotypic appearance. The growth data of the same is as follow:

Table A.3.E.2.16.1 Growth Data of Plus Trees of *Terminalia myriocarpa* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KUND/TM/8/2	20	16	2.5	10	7	10	10	10
KUND/TM/9/3	21	16	2.2	9	7	10	10	10
KUND/TM/10	22	14	2	9	8	10	10	10

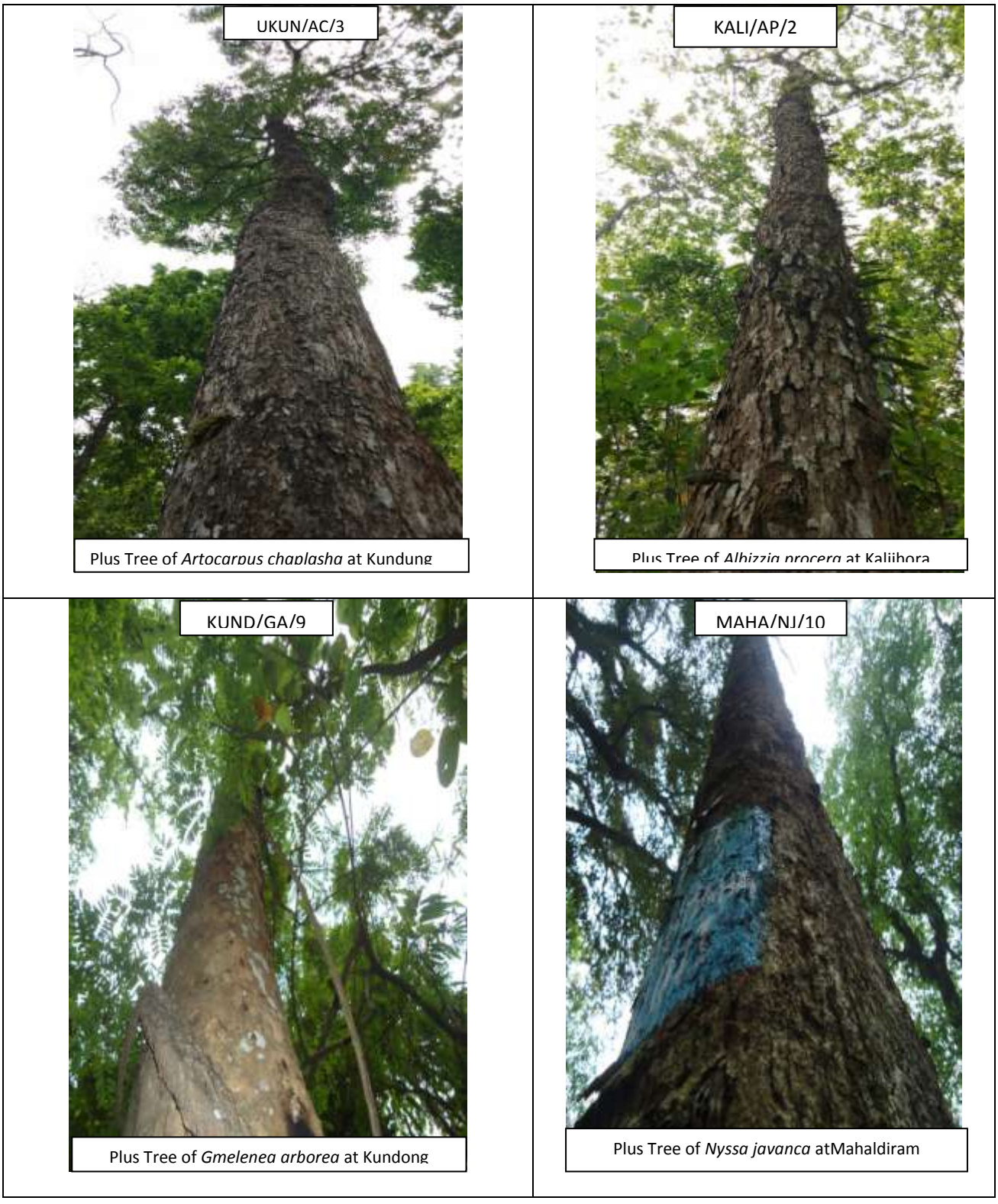
However new candidate plus trees were also selected for the species in the division. Hence further comparison and screening of plus trees and candidate plus trees have been carried out in para B.3.D.1.9.

A.3.E.2.17 *Tetrameles nudiflora*

1 plus trees of concerned species were located in the division. The growth data of same is presented in A.3.E.2.16.1.

Table A.3.E.2.17.1 Growth data of PlusTrees of*Tetrameles nudiflora* in Kurseong Division after Rejection

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
UKUN/TN/1	31	23	5.5	14	12	10	10	10



Plus Tree of *Artocarpus chaplasha* at Kundung

Plus Tree of *Albizzia procera* at Kalijhora

Plus Tree of *Gmelenea arborea* at Kundong

Plus Tree of *Nyssa javanca* atMahaldiram

Fig. A.3.E.1 Glimpse of Existing Plus Trees in Kurseong Division

B. Selection of New Candidate Plus trees and/or Plus trees

New phenotypically superior candidate plus trees of important species were selected in the promising pockets of West Bengal as directed by the State Forest Department, West Bengal. Further analysis was carried out to screen in the new plus trees in the different divisions. New candidate plus trees were selected in all the three circles named as below:

1. Silviculture North
2. Silviculture South
3. Silviculture Hill

B.1 Selection of New Candidate Plus Trees/ Plus Trees in Silviculture North

In silviculture North circle, new candidate plus trees were selected in 2 divisions, named as below:

A. Jalpaiguri
B. Wildlife-II

The new candidate plus trees were also compared with the existing screened in trees of the species in the division, so as to finalize the list of total candidate plus trees and plus tree to be retained in a particular division. The details of selected trees along with its evaluation are discussed as ahead:

B.1.A Jalpaiguri Division

In the division, 33 new candidate plus trees of 7 species were selected by the institute. However there were also 50 trees of 6 species in the division after screening by the institute (Table B.1.A.1). In totality 83 trees of 7 species were taken into account for final selection of plus trees and candidate plus trees.

Table B.1.A.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Jalpaiguri Division

Sl No.	Species Name	New Candidate Plus Trees Selected	Existing Trees	Total no. of Plant evaluated
1.	*Anthocephalus cadamba*	1	2	3
2.	*C. cecidodaphne*	3	0	3
3.	*Lagerstroemia flos reginae*	1	13	14
4.	*M. champaca*	4	7	11
5.	*S. robusta*	8	1	9
6.	*S. wallichii*	15	7	22
7.	*Tectona Grandis*	1	20	21
	Total	**33**	**50**	**83**

B.1.A.1 Analysis of Data

The new candidate plus trees along with the existing trees (candidate plus trees and plus trees) of a particular species were taken for comparison and final selection of new plus trees and/or candidate plus trees of that particular species. Comparison with the existing trees has been done where total number of trees per species is more than 6.

B.1.A.1.1 *Anthocephalus cadamba*

1 phenotypically desirable candidate plus tree was selected in the division. As for plus tree selection we need at least 6 more trees to compare, hence all will be marked as candidate plus tree.

Table B.1.A.1.1.1 Growth data of Selected New Candidate Plus Tree of *Anthocephalus cadamba* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JPG/LT/AC/1	21	18	1.28	5	7	10	10	10
CENT/AC/1	30	16	1.37	7	7	10	7	10
CENT/AC/2	27	12	1.4	7	8	10	7	10

B.1.A.1.2 *Cinnamomum cecidodaphne*

3 phenotypically desirable candidate plus tree was selected in the division. All the trees will be marked as candidate plus tree.

Table B.1.A.1.2.1 Growth Data of Selected New Candidate Plus Tree of Cinnamomum *cecidodaphne* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JPG/MOR/CC/1	25	12	1.9	12	6	10	10	10
JPG/MOR/CC/2	23	18	1.29	6	8	10	10	10
JPG/MOR/CC/3	25	18	1.52	12	5	10	10	10

B.1.A.1.3 *Lagerstroemia flos reginae*

2 trees were discarded on the basis of phenotypic evaluation and 16 plus trees and 1 new tree were taken for further analysis. The growth data of same is as follow:

Table B.1.A.2.3.1 Growth data of Selected New Candidate Plus Tree and Existing Plus trees of *Lagerstroemia flos reginae* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
PANJ/LF/17	18	11	0.9	4.5	7	7	7	10
PANJ/LF/18	19	10	0.98	8	9	7	7	10
PANJ/LF/19	17	9	1.2	3.5	5	7	7	10
PANJ/LF/20	22	6	1	8	11	7	7	10
PANJ/LF/21	23	16	1.03	11	10	10	7	10
PANJ/LF/23	19	8	1.56	11	7	7	7	10
PANJ/LF/24	22	18	1.57	14	8	10	7	10
PANJ/LF/25	21	14	1.19	8	8	10	7	10
CENT/LF/11	22	10	1.25	11	10	10	10	10
CENT/LF/12	29	20	1.4	8	6	10	7	10
CENT/LF/13	30	18	1.26	6	5	10	7	10
CENT/LF/14	26	13	1.66	10	6	10	7	10

CENT/LF/15	23	10	1.43	14	13	10	10	10
BARA/LF/26	20	13	1.6	8	5	10	7	10
BARA/LF/27	16	9	1.7	10	12	7	7	10
BARA/LF/28	19	10	1.6	7	6	10	7	10
JPG/LT/LF/1	**17**	**7.5**	**1.35**	**5**	**5**	**10**	**10**	**10**

** The bold text is of new selected candidate plus tree*

After giving scores and weightage to each trait (Annexure-IV, Table IV.1, IV.2 & IV.3), the total weightage of treesas follow:

Table B.1.A.1.3.2 Total Weightage Score New Candidate Plus Trees & Existing Plus trees of *Lagerstroemia flos reginae in* Jalpaiguri Division.

Tree No.	Total Weightage Score
PANJ/LF/17	69.25
PANJ/LF/18	71.5
PANJ/LF/19	71
PANJ/LF/20	71.25
PANJ/LF/21	82
PANJ/LF/23	75.5
PANJ/LF/24	90
PANJ/LF/25	80
CENT/LF/11	86.5
CENT/LF/12	90.25
CENT/LF/13	89.75
CENT/LF/14	89
CENT/LF/15	89
JPG/LT/LF/1	85.5
BARA/LF/26	78.75
BARA/LF/27	83.5
BARA/LF/28	80

The trees are in three different locations. In Panijhora trees are located in 2 hectare area (Fig. B.1.A.1.3.1), hence 2 trees will be retained as plus trees (PANJ/LF/24 & PANJ/LF/21). In Central, trees are distributed over an area more than 9 hectare (Fig. B.1.A.1.3.2), hence all the trees will be retained as plus trees. JPG/LT/LF/1 score is more than average value and it is located in different location in Baragidi. It will be marked as plus tree**.** Remaining trees in the division will be kept as candidate plus trees.BARA/LF/26, BARA/LF/27 and BARA/LF/28 are more than 100 m from each other so will be retained as plus trees.

Fig. B.1.A.1.3.1 Area and Location of Different Trees of *Lagerstroemia flos reginae* in Panijhora Location of Jalpaiguri Division

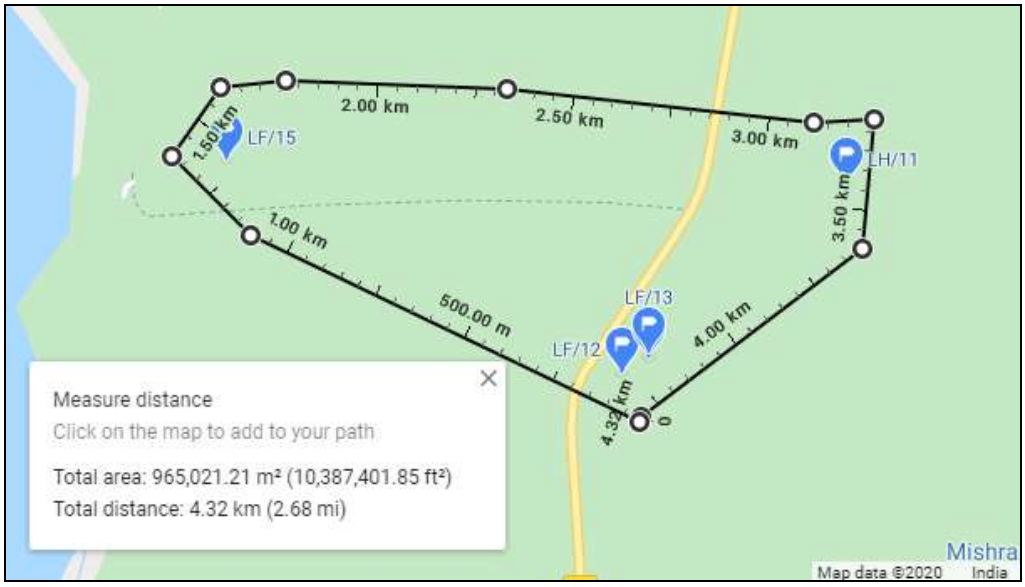


Fig. B.1.A.1.3.2 Area and Location of Different Trees of *Lagerstroemia flos reginae* in Central Location of Jalpaiguri Division

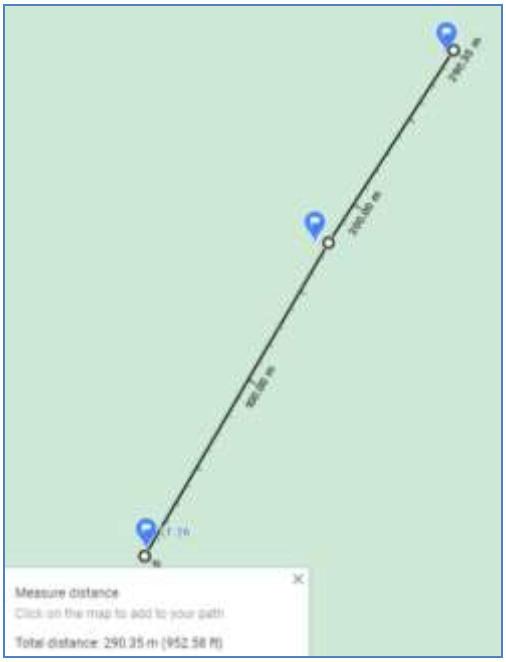


Fig. B.1.A.1.3.3 Area and Location of Different Trees of *Lagerstroemia flos reginae* in Bara Location of Jalpaiguri Division

B.1.A.1.4 *Michelia champaca*

In totality, 13 trees were located in the division after selection of 4 new candidate plus trees. Growth data of same is presented in the table below:

Table B.1.A.1.4.1 Growth data of New Candidate Plus Trees & Existing Plus Trees and Candidate Plus Trees of *Michelia champaca* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
CENT/MC/17	33	22	1.92	13	6	10	7	10
CENT/MC/18	32	15	2.2	18	7	10	10	10
SURS/MC/21	29	17	1.19	12	7	10	7	10
CENT/MC/15	35	25	2.12	18	9	10	10	10
CENT/MC/16	32	21	1.98	11	8	10	7	10
SMOR/MC/19	33	27	2.4	7	11	10	7	10
SMOR/MC/20	28	6.5	2.54	12	12	10	7	10
JPG/LT/MC/1	26	20	1.65	10	7	10	10	10
JPG/LT/MC/2	28	19	1.83	10	7	10	10	10
JPG/LT/MC/3	28	23	1.52	10.5	6	10	10	10
JPG/LT/MC/4	29	24	1.75	7	6	10	10	10

** The bold text are of New Selected Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.4, IV.5& IV.6) and finally the total weightage score was computed as below:

Table B.1.A.2.1.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees and Candidate Plus Trees of *Michelia champaca* in Jalpaiguri Division

Tree No.	Total Weightage Score
JPG/LT/MC/1	84.75
JPG/LT/MC/2	86.25
JPG/LT/MC/3	84
JPG/LT/MC/4	89.75
CENT/MC/17	86.75
CENT/MC/18	92
SURS/MC/21	78
CENT/MC/15	97.75
CENT/MC/16	86.75

SMOR/MC/19	93
SMOR/MC/20	82.25

** The bold texts are of New Selected Candidate Plus Trees*

At central location, trees are distributed over an area of more than 1 hectare; hence 2 trees will be retained as plus trees (CENT/MC/15 and CENT/MC/18). At second location both trees are within 100 meter distance, hence SMOR/MC/19 will be retained as plus tree. **JPG/LT/MC/1, JPG/LT/MC/2 and JPG/LT/MC/4** are in different locations, hence JPG/NG/MC/4 (having weightage score more than average) will be selected as plus tree. All the remaining trees will be marked as candidate plus trees.

Fig. B.1.A.1.4.1 Area and Location of Different Trees *Michelia champaca at* Central Location in Jalpaiguri Division

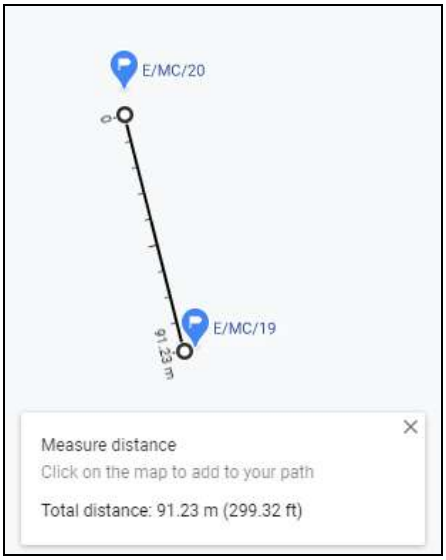


Fig. B.1.A.1.4.2 Area and Location of Different Trees *Michelia champaca at* Khutimari Location inJalpaiguri Division

B.1.A.1.5 *Shorea robusta*

8 new candidate plus trees were selected in the division. 1 existing phenotypically good tree was there in the division. Growth data of trees is as follow:

Table B.1.A.1.5.1 Growth data of New & Existing Plus trees of *Shorea robusta* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JPG/CH/SR/1	**29**	**27**	**1.1**	**7**	**2**	**10**	**10**	**10**
JPG/LT/SR/2	**35**	**29**	**1.8**	**8**	**9**	**10**	**10**	**10**
JPG/LT/SR/3	**35**	**29**	**1.05**	**6**	**7**	**10**	**10**	**10**
JPG/LT/SR/4	**33**	**27**	**1.45**	**10**	**8**	**10**	**10**	**10**
JPG/LT/SR/5	**34**	**29**	**1.52**	**8**	**6**	**10**	**10**	**10**
JPG/LT/SR/6	**32**	**29**	**1.7**	**5.5**	**9**	**10**	**10**	**10**
JPG/LT/SR/7	**33**	**27**	**2.2**	**7**	**6**	**10**	**10**	**10**
JPG/LT/SR/8	**25**	**19**	**1.61**	**5**	**4**	**10**	**10**	**10**
SMOR/SR/35	34	24	2.5	12	10	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

After carrying out all the analysis(Annexure-IV, Table IV.7, IV.8& IV.9), the total weightage of trees are as follow:

Table B.1.A.1.5.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Shorea robusta* in Jalpaiguri Division

Tree No.	Total Weightage Score
JPG/CH/SR/1	**85.25**
JPG/LT/SR/2	**95.5**
JPG/LT/SR/3	**90.75**
JPG/LT/SR/4	**90**
JPG/LT/SR/5	**93**
JPG/LT/SR/6	**93.5**
JPG/LT/SR/7	**93.25**
JPG/LT/SR/8	**78.25**
SMOR/SR/35	91.5
Mean	90.11

** The bold texts are of New Selected Candidate Plus Trees*

All the trees are spread far from each other except **JPG/LT/SR/3** and **JPG/LT/SR/8** (Fig. B.1.A.1.5.1),which were close to each other. Existing tree was in thedifferent location. On the basis of mean value, **JPG/LT/SR/3, JPG/LT/SR/5, JPG/LT/SR/7, JPG/LT/SR/6, JPG/LT/SR/2 and** SMOR/SR/35 will be marked as plus trees. Remaining will be retained as candidate plus trees.

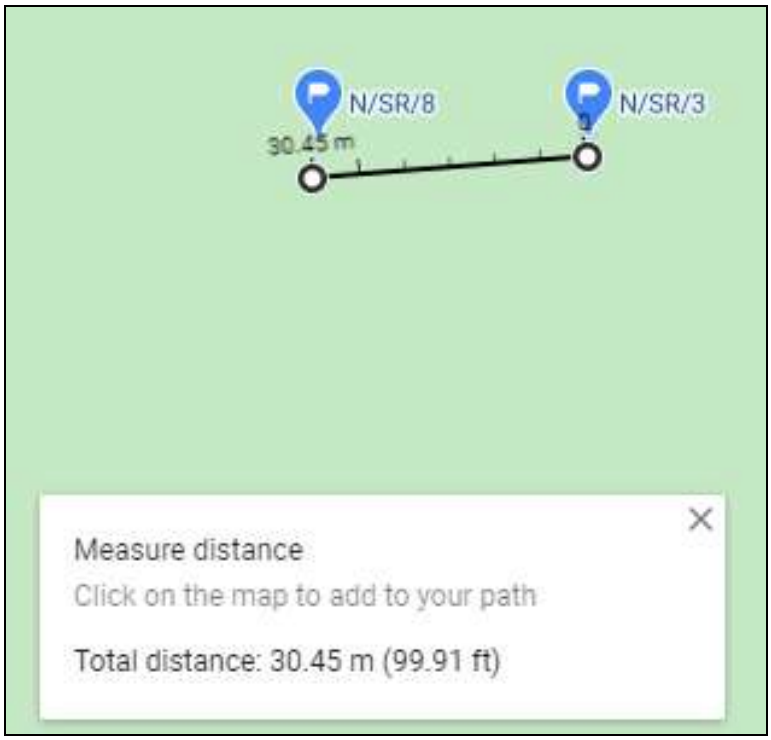


Fig. B.1.A.1.5.1 Area and Location of Different Trees of *Shorea robusta at* Lataguri Location in Jalpaiguri Division

B.1.A.1.6 *Schima wallichii*

15 new candidate plus trees were selected. For comparison, 7 already evaluated existing plus trees were also taken into account. The growth data of the trees are as follow:

Table B.1.A.1.6.1 Growth data of New Candidate Plus Trees & Existing Plus trees of *Schima wallichii* in Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JPG/CH/SW/9	27	23	1.68	8	4	10	10	10
JPG/LT/SW/10	34	30	1.72	9	2	10	10	10
JPG/LT/SW/11	33	26	1.65	9	4	10	10	10

JPG/LT/SW/12	**25**	**17**	**1.25**	**10.5**	**7**	**10**	**10**	**10**
JPG/LT/SW/13	**29**	**24**	**1.75**	**7**	**6**	**10**	**10**	**10**
JPG/LT/SW/14	**31**	**24**	**1.55**	**5.5**	**8**	**10**	**10**	**10**
JPG/LT/SW/15	**30**	**23**	**1.58**	**5.7**	**6**	**10**	**10**	**10**
JPG/LT/SW/1	**21**	**9**	**1.55**	**7**	**9**	**10**	**10**	**10**
JPG/LT/SW/2	**24**	**18**	**1.6**	**6**	**5**	**10**	**10**	**10**
JPG/LT/SW/3	**26**	**20**	**1.52**	**4.5**	**5**	**10**	**10**	**10**
JPG/LT/SW/4	**20**	**13**	**1.55**	**6**	**8**	**10**	**10**	**10**
JPG/LT/SW/5	**19**	**10**	**1.6**	**5**	**4**	**10**	**10**	**10**
JPG/LT/SW/6	**18**	**12**	**1.6**	**4.5**	**6**	**10**	**10**	**10**
JPG/LT/SW/7	**19**	**11**	**1.23**	**5**	**5**	**10**	**10**	**10**
JPG/LT/SW/8	**20**	**13**	**1.64**	**6.5**	**6**	**10**	**10**	**10**
CENT/SW/10	28	13	1.76	5	4	10	7	10
SURS/SW/7	32	20	1.3	13	7	10	7	10
SURS/SW/8	32	22	2.65	18	12	10	7	10
SURS/SW/9	29	20	2.55	14	11	10	10	10
SMOR/SW/1	34	26	2.6	3	10	7	7	10
SMOR/SW/5	28	18	2.7	7	8	10	7	10
SMOR/SW/6	33	17	2.12	7	9	10	7	10
BARA/SW/11	24	15	1.8	7	8	10	7	10
BARA/SW/12	23	12	2	10	7	10	7	10
CELKA/SW/13	21	10	2	10	8	10	10	10
CELKA/SW/14	31	19	2.23	13	8	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.10, IV.11 & IV.12) and finally the total weightage score was computed as below:

Table 4.A.2.6.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Schima wallichii* in Jalpaiguri Division

Tree No.	Total Weightage Score
JPG/CH/SW/9	87.5
JPG/LT/SW/10	92.5
JPG/LT/SW/11	92.75
JPG/LT/SW/12	82
JPG/LT/SW/13	89
JPG/LT/SW/14	90.5
JPG/LT/SW/15	88.75
JPG/LT/SW/1	78.75

JPG/LT/SW/2	84
JPG/LT/SW/3	85.25
JPG/LT/SW/4	78.75
JPG/LT/SW/5	78.25
JPG/LT/SW/6	78.25
JPG/LT/SW/7	76.25
JPG/LT/SW/8	78.5
CENT/SW/10	78.25
SURS/SW/7	82.75
SURS/SW/8	93.25
SURS/SW/9	94
SMOR/SW/1	89.75
SMOR/SW/5	88.75
SMOR/SW/6	86.25
BARA/SW/11	79.75
BARA/SW/12	78
CELKA/SW/13	81
CELKA/SW/14	93.25
Mean	**84.84**

** The bold texts are of New Selected Candidate Plus Trees*

New and existing trees were in the different locations. 5 new candidate plus trees were in a cluster covering an area within1hectare (Fig. B.1.A.1.6.1).Other new trees were spread over a large area and locations with large distances. By comparing their weightage to the average value, **JPG/LT/SW/11, JPG/LT/SW/10, JPG/LT/SW/14, JPG/LT/SW/13, JPG/LT/SW/5, JPG/LT/SW/9** and **JPG/LT/SW/3** will be marked as plus trees and remaining will be retained as candidate plus trees. Existing trees were in 2 different locations. In sursuti location 4 existing plus trees of the species were distributed over an area more than 7 hectares (Fig. B.1.A.1.6.2), hence all will be retained as plus trees. At Khuntimari location, SMOR/SW/5 and SMOR/SW/6 were closely located (Fig. B.1.A.1.6.1), hence only 1 tree will be selected as plus tree (SMOR/SW/5). SMOR/SW/1 was far from the existing 2 trees and will be retained as plus tree. BARA/SW/11 and BARA/SW/12 are far away from each other, hence both will be retained as plus trees. CELKA/SW/13 and

CELKA/SW/14 are close to each other, hence CELKA/SW/14 will be retained as plus tree and CELKA/SW/13 will be marked as candidate plus tree.

Fig. B.1.A.1.6.1 Area and Location of Different Trees of *Schima wallichiiat* Lataguri Location in Jalpaiguri Division

Fig. B.1.A.1.6.2 Area and Location of Different Trees of *Schima wallichiiat* Lataguri Location in Jalpaiguri Division

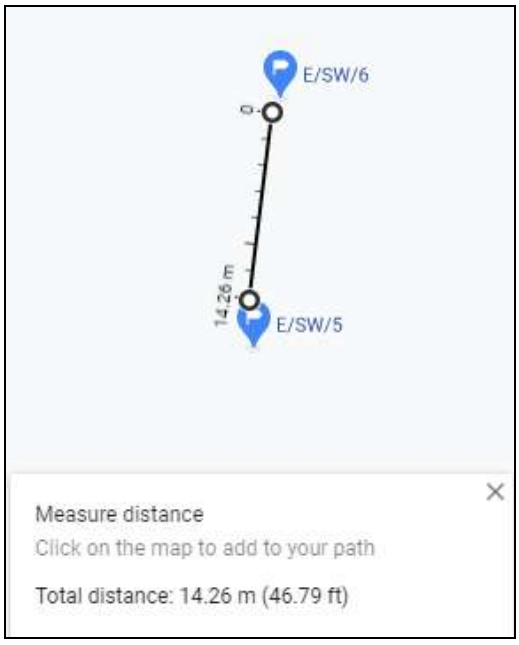
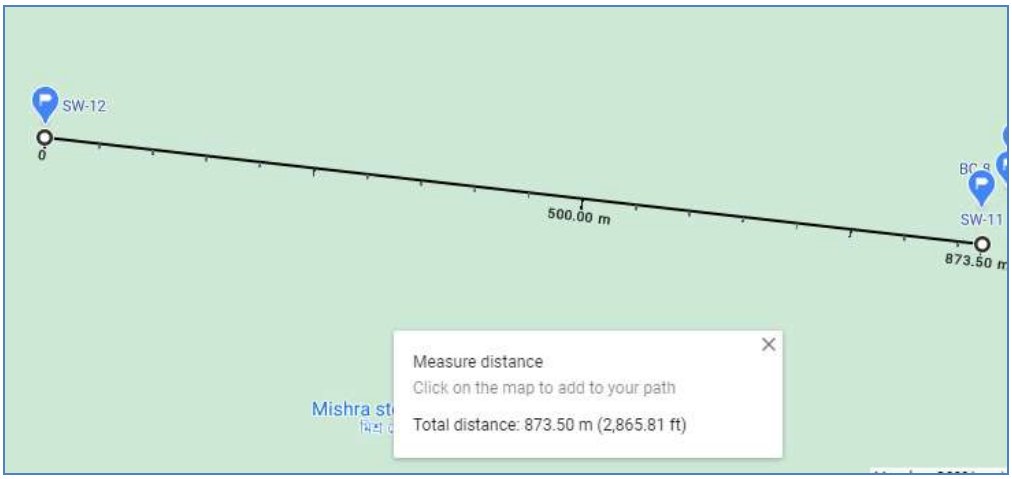
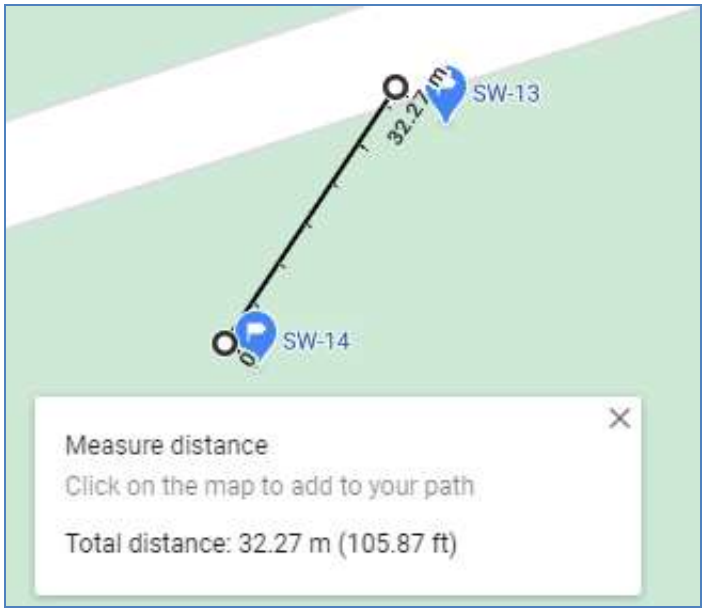


Fig. B.1.A.1.6.3 Area and Location of Different Trees of *Schima wallichiiat* Khutimari Location in Jalpaiguri Division





B.1.A.1.7 *Tectona grandis*

In totally 21 plus trees and candidate plus trees were located in the division after evaluation of existing ones and selection of new candidate plus trees. Growth data of same is as ahead:

Table B.1.A.1.7.1 Growth data of New Candidate Plus Trees &Existing Plus trees of *Tectona grandis in*Jalpaiguri Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RETI/ TG/54	32	21	2.58	7	8	10	7	10
RETI/ TG/55	35	25	2.75	12	10	10	7	10
RETI/ TG/56	26	14	2.35	6.5	8	10	7	10
CENT/TG/29	18	9	1.2	8	12	10	7	10
CENT/TG/30	23	17	1.13	8	12	10	7	10
CENT/TG/31	31	22	1.33	8	14	10	7	10
CENT/TG/32	28	18	1.14	9	11	10	7	10
GOSAI/TG/53	32	22	2.08	11	9	10	7	10
SMOR/TG/48	29	20	1.55	8.5	9	10	7	10
SMOR/TG/47	28	21	1.57	6	8	10	7	10
SMOR/TG/49	31	22	1.75	6	8	10	7	10
SMOR/TG/50	29	20	1.55	7	8	10	7	10
SMOR/TG/51	32	26	1.5	11	10	10	7	10
SMOR/TG/52	29	21	1.6	8	9	10	7	10
JPG/LT/TG/1	**30**	**15**	**1.35**	**7**	**10**	10	10	10
SURS/TG/33	20	7	1.25	6	5	10	7	10
SURS/TG/34	22	18	1.55	6	7	10	7	10
SURS/TG/35	21	18	1.3	5.5	9	10	7	10
SURS/TG/36	22	11	1.1	6	15	10	10	10
SURS/TG/37	19	10	1.2	8	9	10	7	10
SURS/TG/38	20	16	1.2	4	12	10	7	10
KHUN/TG/39	22	16	1.5	4	4	10	7	10
KHUN/TG/40	23	17	1.95	4	6	10	7	10
KHUN/TG/41	26	16	1.96	7	6	10	7	10
KHUN/TG/42	21	12	1.59	5	6	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

After scoring and giving weightage to each trait (Annexure-IV, Table IV.13, IV.14 & IV.15), the total weightage score is as ahead:

Table B.1.A.1.7.2 Total Weightage Score New Candidate Plus Trees & Existing plus trees of *Tectona grandis at* Jalpaiguri Division

Tree No.	Total Weightage Score
RETI/ TG/54	92.25
RETI/ TG/55	95.25
RETI/ TG/56	83.25
CENT/TG/29	72.75
CENT/TG/30	78.25
CENT/TG/31	83.5
CENT/TG/32	80
GOSAI/TG/53	89
SMOR/TG/48	85
SMOR/TG/47	83.25
SMOR/TG/49	84.75
SMOR/TG/50	84.75
SMOR/TG/51	89.25
SMOR/TG/52	85
JPG/LT/TG/1	85.5
SURS/TG/33	72
SURS/TG/34	79.75
SURS/TG/35	76.25
SURS/TG/36	80.75
SURS/TG/37	72.5
SURS/TG/38	76.25
KHUN/TG/39	79
KHUN/TG/40	81.25
KHUN/TG/41	83
KHUN/TG/42	75.75
Mean	**85.34**

** The bold texts are of New Selected Candidate Plus Trees*

All the three trees in Reti location are located over an area more than 2 hectare (Fig. B.1.A.1.7.1), hence all will be retained as plus trees. In Central/4 all the 4 trees are within 1 hectare (Fig. B.1.A.1.7.2), hence only 1 tree will be retained as plus tree (CENT/TG/31). At sursuiti location (Fig. B.1.A.1.7.3) all the trees are located over large area of 6 hectare, hence all the trees will be retained as plus trees including new candidate plus tree, except SURS/TG/36. At Khutimari, all the trees are located within 1 hectare area, hence SMOR/TG/51 will be retained as plus tree, and remaining as candidate plus tree. GOSAI/TG/53 is in different location, hence will be retained as plus tree. Remaining trees will be marked as candidate plus trees. In tendu forest all the trees are located within 1 hectare, hence KHUN/TG/41 will be retained as plus tree and remaining will be marked as candidate plus tree.

Fig. B.1.A.1.7.1 Area and Location of Different Trees *Tectona grandis at* Reti Location in Jalpaiguri Division

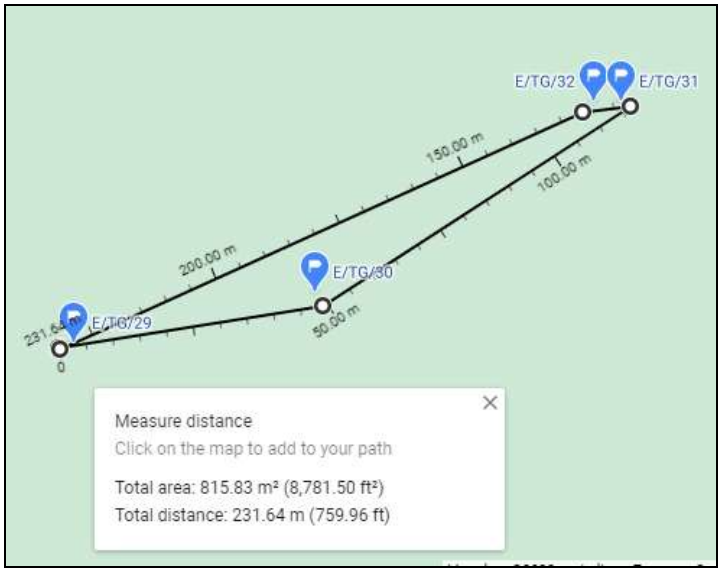


Fig. B.1.A.1.7.2 Area and Location of Different Trees *Tectona grandis at* Central Location in Jalpaiguri Division

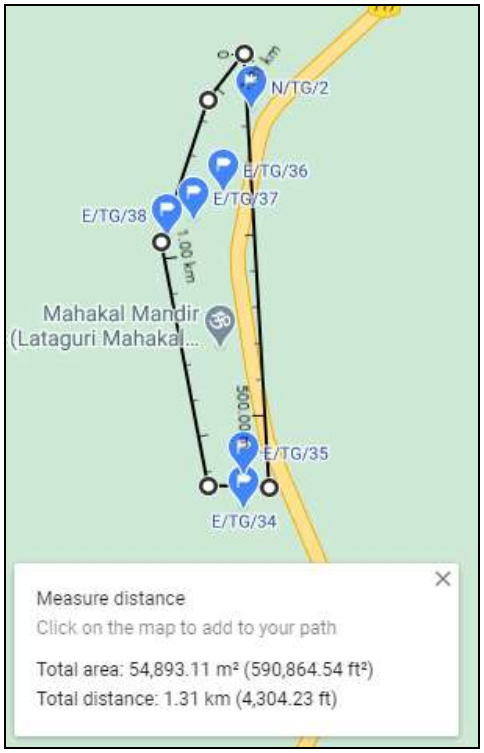


Fig. B.1.A.1.7.3 Area and Location of Different Trees *Tectona grandis at* Sursuiti Location in Jalpaiguri Division

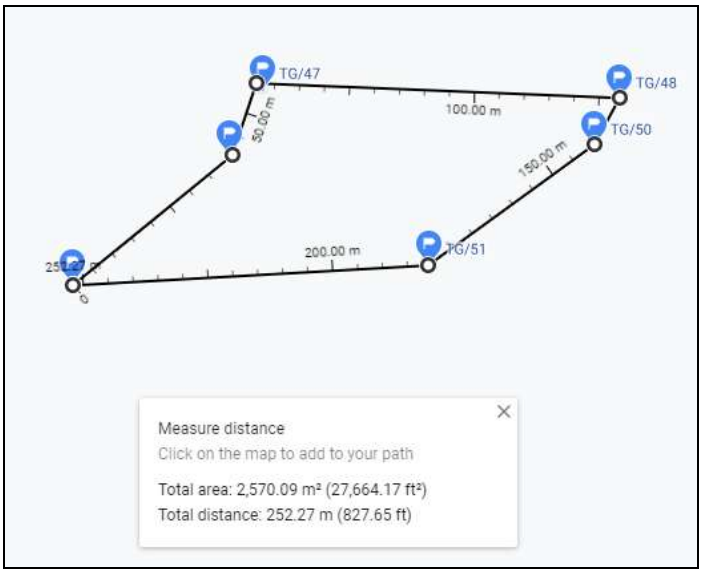
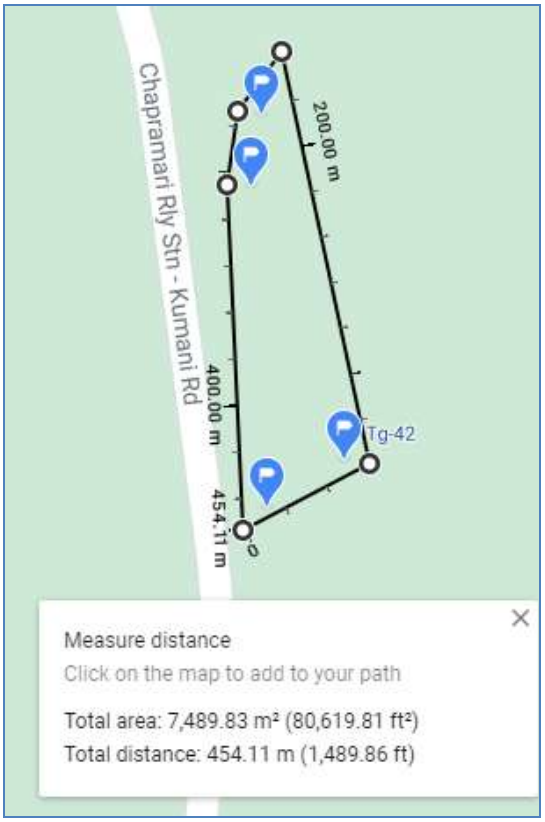


Fig. B.1.A.1.7.4 Area and Location of Different Trees *Tectona grandis at* Khutimari Location in Jalpaiguri Division



B.1.B Wildlife-II Division

7 new candidate plus trees of 3 species were selected in the division (Table B.1.B.1). No prior selection by State Forest department was carried out in the concerned species.

Table B.1.B.1 Abstract of New Candidate Plus Trees in Wildlife-II Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Schima wallichii*	2	0	2
2.	*Shorea robusta*	4	0	4
3.	*Tectona grandis*	1	0	1
	Total	**7**	**0**	**7**

B.1.B.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species, for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.1.B.1.1 *Schima wallichii*

2 phenotypically superior trees were selected in the division (Table B.1.B.1.1.1) and both will be retained as candidate plus trees.

Table B.1.B.1.1.1 Growth data of Selected New Candidate Plus trees of Schima*wallichii* in Wildlife II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
WL-II/NG/SW/1	34	29	1.55	10	7	10	10	10
WL-II/SG/SW/2	28	16	1.45	7	5	10	10	10

B.1.B.1.2 *Shorea robusta*

4 phenotypically superior trees of *Shorea robusta* were selected in the division (Table B.1.B.1.2.1) and both will be retained as candidate plus trees.

Table 4.C.2.2.1 Growth data of Selected New Candidate Plus trees of Shorea *robusta* in Wildlife - II in Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
WL-II/NG/SR/1	23	18	1.6	10.2	6	10	10	10
WL-II/NG/SR/2	29	26	1.38	11	4	10	10	10
WL-II/NG/SR/3	39	33	1.45	8.7	6	10	10	10
WL-II/NG/SR/4	35	30	1.15	9	5	10	10	10

B.1.B.1.3 *Tectona grandis*

Only 1 phenotypically superior tree was located and selected in the division. And same will be retained as candidate plus tree. Growth data of same is as follow:

Table 4.C.2.3.1 Growth data of Selected New Candidate Plus tree of Tectona *grandis* in Wildlife - II Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
WL-II/SG/TG/1	26	18	1.5	6	8	10	10	10

B.2 Selection of New Candidate Plus Trees/ Plus Trees in Silviculture South

In silviculture south circle, new candidate plus trees were selected in 6 divisions, named as below:

A. Bankura (S)
B. Burdwan
C. Jhargram
D. Kangsawati (N)
E. Medinipur
F. Roopnarayan

The new candidate plus trees were also compared with the existing screened in trees of the species in the division, so as to finalize the list of total candidate plus trees and plus tree to be retained in a particular division. The details of selected trees along with its evaluation are discussed as follow:

B.2.A. Bankura (S) Division

17 new candidate plus trees of 12 species were selected in the division, however 7 existing trees of *Terminalia alata* were there, which were taken for final selection of the concerned species (Table B.2.B.1).

Table B.2.A.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Bankura (S) Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Acacia auriculiformis*	01	0	01
2.	*Alstonia scholaris*	04	0	04
3.	*Anogeissus latifolia*	01	01	02
4.	*Buchanania cochinchinensis*	01	05	06
5.	*Diospyros melanoxylon*	01	01	02
6.	*Eucalyptus hybrid*	01	0	01
7.	*Gmelina arborea*	01	0	01
8.	*Pterocarpus santalinus*	02	0	02
9.	*Schleichera oleosa*	01	0	01
10.	*Tectona grandis*	01	01	02
11.	*Terminalia alata*	02	09	11
12.	*Terminalia chebula*	01	03	04
	Total	**17**	**20**	**37**

B.2.B.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.B.1.1 *Acacia auriculiformis*

Only 1 tree was selected in the division having good phenotypical appraisal. Same will be retained as candidate plus tree.

Table B.2.B.1.1 Growth data of Selected New Candidate Plus Trees of *Acacia auriculiformis* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/HB/AA/1	16	10	0.78	4	4	10	10	10

B.2.B.1.2 *Alstonia scholaris*

4 new phenotypically superior trees were selected in the division (table B.2.B.1.2.1) and will be retained as candidate plus trees.

Table B.2.B.1.2.1 Growth data of Selected New Candidate Plus Trees of *Alstonia scholaris* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/KT/AS/1	17	13	0.75	4	4	10	10	10
BNK(S)/KT/AS/2	16	12	0.92	5	4	10	10	10
BNK(S)/SP/AS/3	21	16	1.15	4	6	10	10	10
BNK(S)/SP/AS/4	21	17	1.05	6	5	10	10	10

B.2.B.1.3 *Anogeissus latifolia*

1 good tree (Table B.2.B.1.3.1) was selected in the division and will be retained as candidate plus tree.

Table B.2.B.1.3 Growth data of Selected New Candidate Plus Tree of *Anogeissus latifolia* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/RB/AL/1	19	12	0.95	8	4	10	10	10

B.2.B.1.4 *Buchanania cochinchinensis*

1 healthy tree (Table B.2.B.1.4.1) was selected in the division and will be retained as candidate plus tree

Table B.2.B.1.4.1 Growth data of Selected New Candidate Plus Trees of *Buchanania cochinchinensis* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/JM/BC/1	15	11	1.15	7	5	10	10	10

B.2.B.1.5 *Diospyros melanoxylon*

1 phenotypically good tree (Table B.2.B.1.5.1) was selected in the division and will be retained as candidate plus tree

Table B.2.B.1.5.1 Growth data of Selected New Candidate Plus Trees of *Diospyros melanoxylon* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/JM/DM/1	15	5.5	1.05	6	5	10	10	10

B.2.B.1.6 *Eucalyptus hybrid*

1 good tree (Table B.2.B.1.5.1) was selected in the division and will be retained as candidate plus tree.

Table B.2.B.1.6.1 Growth data of Selected New Candidate Plus Trees of *Eucalyptus hybrid* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/HB/EH/1	21	17	1	3	5	10	10	10

B.2.B.1.7 *Gmelina arborea*

1 phenotypically good tree was located and selected in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table B.2.B.1.7.1 Growth data of New Candidate Plus Trees of *Gmelina arborea* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/FK/GA/1	21	12	1.6	9	10	10	10	10

B.2.B.1.8 *Pterocarpus santalinus*

2 phenotypically superior trees were located and selected in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table B.2.B.1.8.1 Growth data of New Candidate Plus Trees of *Pterocarpus santalinus* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/HB/PS/1	17	14	0.75	3	4	10	10	10
BNK(S)/HB/PS/2	18	12	1	5	4	10	10	10

B.2.B.1.9 *Schleichera oleosa*

1 phenotypically good tree was located and selected in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table B.2.B.1.9.1 Growth data of Candidate Plus Trees of *Schleichera oleosa* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/HB/SO/1	15	4.5	1.5	16	12	10	10	10

B.2.B.1.10 *Tectona grandis*

1 phenotypically good tree was located and selected in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table B.2.B.1.10.1 Growth data of Candidate Plus Trees of *Tectona grandis* in Bankura Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/HB/TG/1	20	12	1.1	10	11	10	10	10

B.2.B.1.11 *Terminalia alata*

2 new candidate plus trees were selected in the division. For further comparison and selection of new plus trees, the data of 7 existing screened candidate plus trees were also taken into account. Growth data of same is as follow:

Table B.2.B.1.11.1 Growth data of Existing & New Candidate Plus Trees of *Terminalia alata* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JHIL/TA/1	15	4	0.75	4	10	10	7	10
JHIL/TA/2	23	8	1.23	3.0	3	10	10	10
JHIL/TA/3	15	4	1.20	7.5	11	7	10	10
JHIL/TA/4	15	9	1.10	5	6	10	7	10
JHIL/TA/5	16	6.5	1.00	8.5	12	10	7	10
JHIL/TA/6	14	5	1.00	9	7	10	10	10
SUTA/TA/1	18	15	1.25	9	13	10	10	10
SUTA/TA/2	20	13	1.05	8	7	7	10	10
SUTA/TA/3	22	10	1.13	4	5	10	10	10
BNK(S)/JM/TA/1	21	13	1.4	10	8	10	10	10
BNK(S)/JM/TA/2	22	11	1.3	7	6	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.16, IV.17 & IV.18) and finally the total weightage score was computed as ahead:

Table B.2.B.1.11.2 Total Weightage Score of Existing &New Candidate Plus Trees of *Terminalia alata* in Bankura (S) Division

Tree No.	Total Weightage Score
JHIL/TA/1	72.25
JHIL/TA/2	90
JHIL/TA/3	79
JHIL/TA/4	80
JHIL/TA/5	82.5
JHIL/TA/6	79.5
SUTA/TA/1	93.5
SUTA/TA/2	89.25
SUTA/TA/3	90.25
BNK(S)/JM/TA/1	98
BNK(S)/JM/TA/2	96.75
Average	**86.45**

** The bold texts are of New Selected Candidate Plus Trees*

At Jhilimili, 4 existing trees were within 1 hectare area (Fig. B.2.B.1.11.2) and JHIL/TA/6 was in another location. At Sultan, 3 trees are close to each other i.e. within 1 hectare (Fig. B.2.B.1.11.2). In another cluster at Jhilimilli all the trees are within 1 hectare area (Fig. B.2.B.1.11.3). Hence JHIL/TA/2, SUTA/TA/1 and **BNK(S)/JM/TA/1** will be marked as plus trees and remaining will be retained as candidate plus trees.

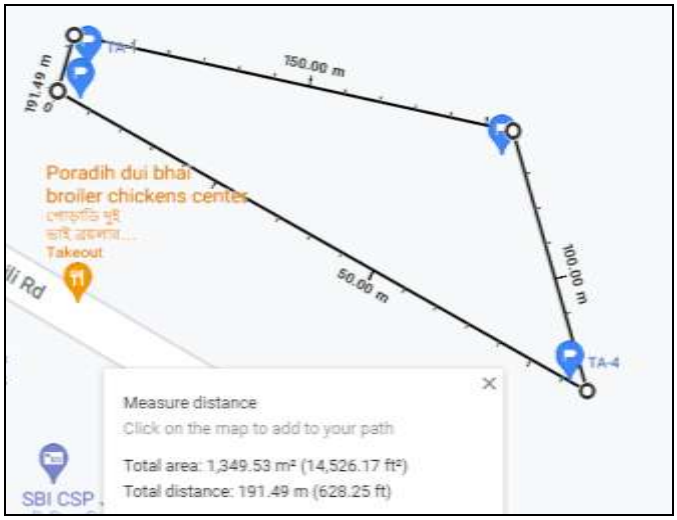


Fig. B.2.B.1.11.1 Area and Location of Different Existing Trees of *Terminalia alata at* Jhilimili Locationin Bankura (S) Division

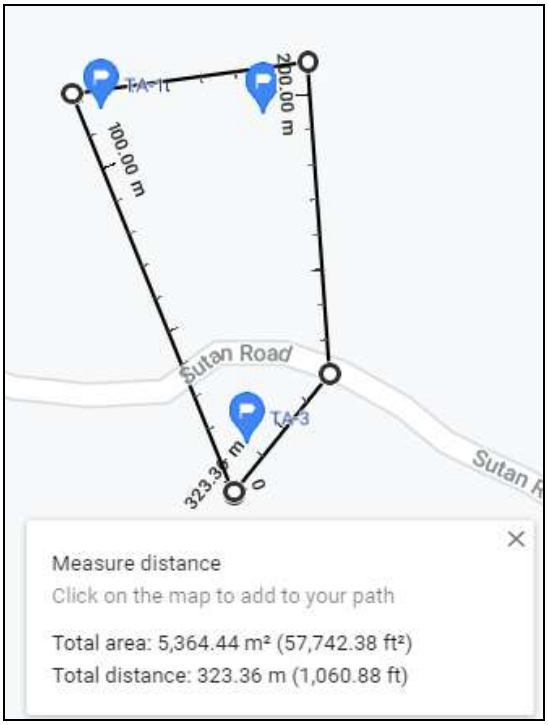


Fig. B.2.B.1.11.2 Area and Location of Different Existing Trees of *Terminalia alata at* Sultan Locationin Bankura (S) Division

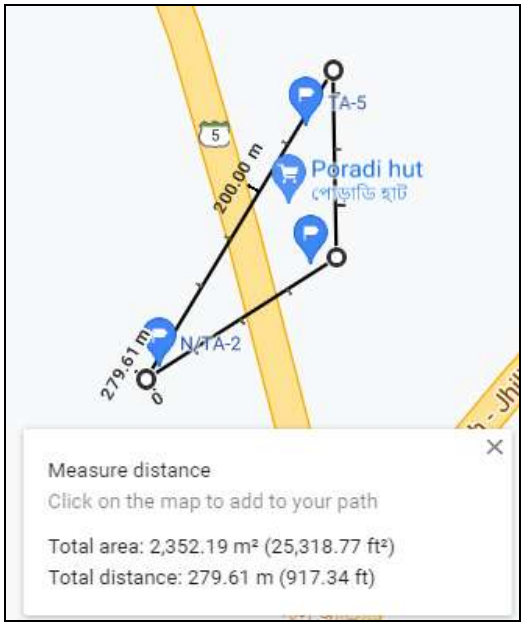


Fig. B.2.B.1.11.3 Area and Location of Different New Trees of *Terminalia alata at* Jhilimili Locationin Bankura (S) Division

B.2.B.1.12 *Terminalia chebula*

1 phenotypically good tree was located and selected in the division and same will be retained as candidate plus tree. Growth data of same is as below:

Table B.2.B.1.12.1 Growth data of New Candidate Plus Trees of *Terminalia chebula* in Bankura (S) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BNK(S)/RB/TC/1	16	3.5	1.7	14	8	10	10	10

B.2.B Burdwan Division

In Burdwan division, 11 new candidate plus trees were selected of 4 species (Table B.2.B.1). However no existing selected trees of these species were there in the division.

Table B.2.B.1 Abstract of Selected New Plus Trees/ Candidate Plus Trees in Burdwan Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Acacia auriculiformis*	5	0	5
2.	*Holoptelea integrifolia*	1	0	1
3.	*Madhuca latifolia*	2	0	2
4.	*Shorea robusta*	3	0	3
	Total	**11**	**0**	**11**

B.2.B.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.B.1.1 *Acacia auriculiformis*

5 new candidate plus trees were selected in the division, which were phenotypically good. Growth data of same is as follow:

Table B.2.B.1.1.1 Growth data of New Candidate Plus Trees of *Acacia auriculiformis* in Burdhwan Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BW/GK/AA/1	15	5	0.65	6	5	10	10	10
BW/GK/AA/2	14	4	0.75	6	4	10	10	10
BW/GK/AA/3	16	10	0.7	5	3	10	10	10
BW/GK/AA/4	15	6.5	0.85	6	4	10	10	10
BW/GK/AA/5	17	12	0.88	4	3	10	10	10

B.2.B.1.2 *Holoptelea integrifolia*

1new phenotypically good candidate plus trees was selected in the division. Growth data of same is as follow:

Table B.2.B.1.2.1 Growth data of New Candidate Plus Tree of *Holoptelea integrifolia* in Burdhwan Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BW/PG/HI/1	18	2.5	1.2	12	7	10	10	10

B.2.B.1.3 *Madhuca latifolia*

2 new candidate plus trees were selected in the division, which were phenotypically good. Growth data of same is as follow:

Table B.2.B.1.3.1 Growth data of New Candidate Plus Trees of *Madhuca latifolia* in Burdhwan Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BW/GK/ML/1	12	2.5	0.65	7	6	10	10	10
BW/GK/ML/2	11	3	0.68	6	5	10	10	10

B.2.B.1.4 *Shorea robusta*

3 new candidate plus trees were selected in the division, which were phenotypically good. Growth data of same is as follow:

Table B.2.B.1.4.1 Growth data of New Candidate Plus Trees of *Shorea robusta* in Burdhwan Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
BW/PG/SR/1	18	11	1.05	5	4	10	10	10
BW/PG/SR/2	16	10.5	0.85	6	5	10	10	10
BW/PG/SR/3	16.5	12	0.8	4	3	10	10	10

B.2.C Jhargram Division

In the division, 25 new candidate plus trees were selected of 14 species (Table B.2.C.1). For further comparison and selection of plus trees, 33 existing trees of 2 species were taken in account.

Table B.2.C.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Jhargram Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Acacia mangium*	2	17	19
2.	*Adina cordifolia*	1	0	1
3.	*Azadirachta indica*	2	0	2
4.	*Bombax ceiba*	2	0	2
5.	*Cassia siamea*	1	0	1
6.	*Eucalyptus camaldulensis*	1	0	1
7.	*Gmelina arborea*	1	0	1
8.	*Haldina cordifolia*	2	0	2
9.	*Madhuca latifolia*	2	0	2
10.	*Emblica officinalis*	1	22	23
11.	*Pterocarpus marsupium*	4	0	4
12.	*Shorea robusta*	3	0	3
13.	*Tectona grandis*	2	0	2
14.	*Terminalia bellirica*	1	0	1
	Total	**25**	**33**	**58**

B.2.C.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.C.1.1 *Acacia mangium*

2 new candidate plus trees were selected in the division and for comparison and final selection, 17 existing trees were taken (Table B.2.C.1.1.1).

Table B.2.C.1.1.1 Growth data of Selected New Candidate Plus Trees and Existing Trees of *Acacia mangium* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNG/AM/1	21	12	1.5	8	12	7	7	10
NNG/AM/2	20	11	1.7	6	13	7	7	10
NNG/AM/4	20	6	1.1	10	17	7	7	10
NNG/AM/5	18	13	0.85	8	9	10	10	10
NNG/AM/7	23	11	1.15	8	14	10	10	10
NNG/AM/8	21	12	1.27	16	19	10	7	10
NNG/AM/10	27.0	10	1.05	7.25	6	8	10	10
NNG/AM/11	15	7	1.12	8	13	7	7	10
NNG/AM/15	22	17	1.09	5	7	10	10	10
NNG/AM/17	27.0	10	1.16	6.00	4	10	6	10
NNG/AM/18	25.0	8	1.10	5.50	3	10	10	10
NNG/AM/21	22	16	0.17	9	13	10	10	10
NNG/AM/24	27	10	1.13	4.75	3	7	10	10
NNG/AM/25	23	11	1.02	9	10	10	10	10
NNG/AM/26	24	11	0.78	6.25	4	10	10	10
NNG/AM/27	13	6	0.78	4.55	4	7	10	10
NNG/AM/30	21	11	0.96	6	7	10	10	10
JG/SL/AM/1	**21**	**10.5**	**1.25**	**7**	**4**	**10**	**10**	**10**
JG/BV/AM/2	**16**	**11**	**0.96**	**6**	**5**	**10**	**10**	**10**

** The bold texts are of New Selected candidate Plus Trees*

After all the analysis (Annexure-IV, Table IV.19, IV.20 & IV.21), the total weightage of trees are as follow:

Table B.2.C.1.1.2 Total Weightage Score of Selected New Plus Trees and Existing Candidate Plus Trees of *Acacia mangium* in Jhargram Division

Tree No.	Total Score
NNG/AM/1	82.75
NNG/AM/2	82.75
NNG/AM/4	75.5
NNG/AM/5	88.25
NNG/AM/7	91.5
NNG/AM/8	86.5
NNG/AM/10	85.5
NNG/AM/11	74
NNG/AM/15	92.75
NNG/AM/17	84
NNG/AM/18	86
NNG/AM/21	89.5
NNG/AM/24	85.5
NNG/AM/25	89.25
NNG/AM/26	86.5
NNG/AM/27	73.5
NNG/AM/30	87.25
JG/SL/AM/1	89.25
JG/BV/AM/2	85.75
Average	**85.05**

** The bold texts are of New Selected Candidate Plus Trees*

Existing and new are in different sites. Existing trees are within 1 hectare area (Fig. B.2.C.1.1.1). NNG/AM/15 will be marked as plus tree and NNG/AM/7, NNG/AM/21, NNG/AM/25, NNG/AM/5, NNG/AM/30 and NNG/AM/8 will be retained as candidate plus trees. Rest will be deleted from the list. The new candidate plus trees are far away from each other. **JG/SL/AM/1 and JG/BV/AM/2** will be marked as plus trees as value of both are above the average.

Fig. B.2.C.1.1.1 Area and Location of Different Existing Trees of *Acacia mangium* in Jhargram Division

B.2.C.1.2 *Adina cordifolia*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.2.1 Growth data of New Candidate Plus trees of *Adina cordifolia* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/MP/AC/1	18	11	1.1	5	7	10	10	10

B.2.C.1.3 *Azadirachta indica*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.3.1 Growth data of New Candidate Plus Trees of *Azadirachta indica* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/GD/AI/1	17	5.5	0.9	9	6	10	10	10
JG/GD/AI/2	15	7.5	0.85	8	7	10	10	10

B.2.C.1.4 *Bombax ceiba*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.4.1 Growth data of New Candidate Plus Trees of *Bombax ceiba* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/BV/BC/1	24	18	1.9	4	6	10	10	10
JG/BV/BC/2	19	16	0.9	6	8	10	10	10

B.2.C.1.5 *Cassia siamea*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.5.1 Growth data of New Candidate Plus Trees of *Cassia siamea* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/GD/CS/1	20	3.5	1.48	4	6	10	10	10

B.2.C.1.6 *Eucalyptus camaldulensis*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.6.1 Growth data of New Candidate Plus Trees of *Eucalyptus camaldulensis* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/EC/1	22	15	1.42	7	8	10	10	10

B.2.C.1.7 *Gmelina arborea*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.7.1 Growth data of New Candidate Plus Tree of *Gmelina arborea* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/GD/GA/1	20	8	1.75	10	4	10	10	10

B.2.C.1.8. *Haldina cordifolia*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.8.1 Growth data of New Candidate Plus Trees of *Holdina cordifolia* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/HC/1	16	8	1.08	12	8	10	10	10
JG/BV/HC/2	19	10.5	1.5	6	6	10	10	10

B.2.C.1.9 *Madhuca latifolia*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.9.1 Growth data of New Candidate Plus Trees of *Madhuca latifolia* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/ML/1	18	2.5	1.45	10	12	10	10	10
JG/JB/ML/2	16	5.5	1.05	6	7	10	10	10

B.2.C.1.10 *Emblica officinalis*

1 new candidate plus tree was selected in the division. However already 22 existing trees were there of concerned species, which were taken for further analysis. Growth data of trees is as follow:

Table B.2.C.1.10.1 Growth data of New Candidate Plus Trees and Existing Trees of *Emblica officinalis* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/EO/1	8	0.9	0.64	10.5	10	7	7	10
NNGR/EO/2	8	0.9	0.95	15	17	7	7	10
NNGR/EO/3	8	0.3	0.93	15.9	18	4	7	10
NNGR/EO/4	7.5	0.5	0.92	9.5	18	4	7	10
NNGR/EO/5	6.5	0.2	0.5	7.5	8	4	7	10
NNGR/EO/6	6	0.1	0.74	8	14	4	7	10
NNGR/EO/7	8	0.1	0.78	9	13	4	7	10
NNGR/EO/8	8	0.2	0.93	12	16	4	7	10
NNGR/EO/9	8	1.5	1.032	11	14	4	7	10
NNGR/EO/10	7.5	0.1	0.8	10	13	4	7	10
NNGR/EO/11	8	0.2	0.95	12	19	4	7	10
NNGR/EO/12	8	0.2	0.78	14.5	9	4	7	10
NNGR/EO/13	4.5	0.3	0.82	7	8	4	7	10
NNGR/EO/14	7.5	0.1	0.95	13	15	4	7	10
NNGR/EO/16	8	2.5	0.83	8.5	7	7	7	10
NNGR/EO/17	8	0.2	0.81	8.5	10	4	7	10
NNGR/EO/18	6	2	0.58	3.5	5	7	7	10
NNGR/EO/19	6	1	0.85	4	7	4	7	10
NNGR/EO/20	5	1.5	0.72	7	13	7	7	10
NNGR/EO/21	5	2	0.64	4	6	4	7	10
NNGR/EO/22	6.5	0.1	1.2	15	22	4	7	10
NNGR/EO/23	5	0.1	0.58	9	13	4	7	10
JG/MP/EO/1	**14**	**4.5**	**0.55**	**4**	**4**	**10**	**10**	**10**

** The bold texts are of New Selected Candidate Plus Trees*

After providing scores and weightage to each trait (Annexure-IV, Table IV.22, IV.23& IV.24), the total weightage score of trees is as ahead:

Table B.2.C.1.10.2 Total Weightage Score of New Candidate Plus Trees and Existing Trees of *Emblica officinalis* in Jhargram Division

Tree No.	Total Weighted Score
NNGR/EO/23	63.5
NNGR/EO/5	64.5
NNGR/EO/21	66.5
NNGR/EO/6	66.75
NNGR/EO/10	67
NNGR/EO/13	67
NNGR/EO/17	68.25
NNGR/EO/19	68.25
NNGR/EO/7	68.5
NNGR/EO/12	68.75
NNGR/EO/4	69.25
NNGR/EO/14	69.5
NNGR/EO/8	71
NNGR/EO/3	71.25
NNGR/EO/11	71.25
NNGR/EO/20	71.75
NNGR/EO/18	72.5
NNGR/EO/22	74
NNGR/EO/16	74.25
NNGR/EO/9	74.75
NNGR/EO/2	75.75
JG/MP/EO/1	70.75
Mean	**66.74**

** The bold texts are of New Selected Candidate Plus Trees*

As trees are distributed over an area more than 2 hectares (Fig. B.2.C.1.10.1). 3 trees (NNGR/EO/2, NNGR/EO/9 and NNGR/EO/16) will be marked as plus trees and remaining will be retained as candidate plus trees except NNGR/EO/23. New selected tree is in the different location, hence will be marked as plus tree.

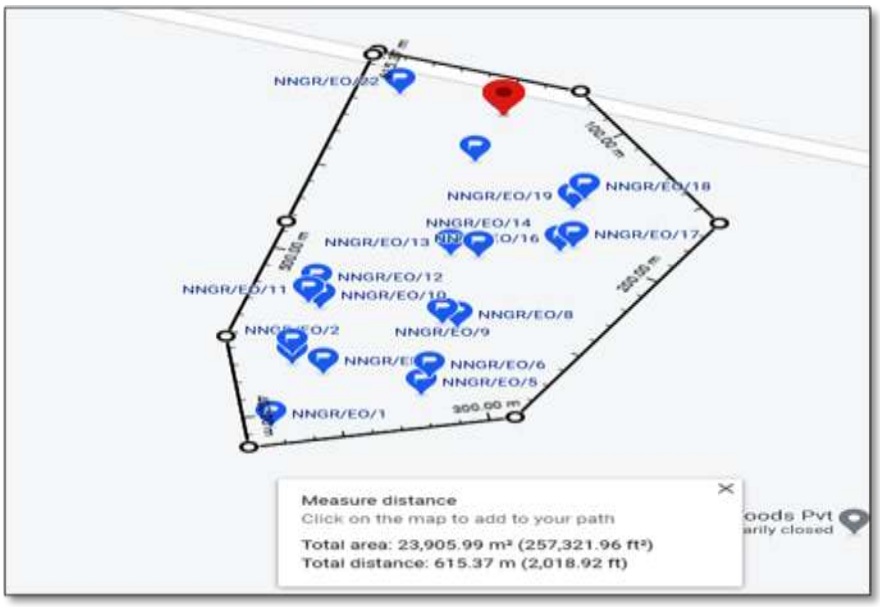


Fig. B.2.C.1.10.1 Area and Location of Different Existing Trees of *Emblica officinalis* in Jhargram Division

B.2.C.1.11 *Pterocarpus marsupium*

4 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.11.1 Growth data of New Candidate Plus Trees of *Pterocarpus marsupium* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/PM/1	21	16	1.2	5	7	10	10	10
JG/BV/PM/2	21	13.5	1.38	4	3	10	10	10
JG/JB/PM/3	20	7.5	1.2	7	8	10	10	10
JG/MP/PM/4	19	12	1.6	15	10	10	10	10

B.2.C.1.12 *Shorea robusta*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.12.1 Growth data of New Candidate Plus Trees of *Shorea robusta* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/SR/1	21	16	1.1	4	5	10	10	10
JG/BV/SR/2	21	17	1.3	5	4	10	10	10
JG/KS/SR/3	22	17	1.65	4	5	10	10	10

B.2.C.1.13 *Tectona grandis*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.13.1 Growth data of New Candidate Plus Trees of *Tectona grandis* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/GD/TG/1	21	12	1.45	6	4	10	10	10
JG/JB/TG/2	20	17	1.12	5	6	10	10	10

B.2.C.1.14 *Terminalia bellirica*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.C.1.14.1 Growth data of New Candidate Plus Trees of *Terminalia bellirica* in Jhargram Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
JG/SL/TB/1	20	4.5	1.25	10	7	10	10	10

B.2.D Kangsawati (North) Division

5 new candidate plus trees of 3 species were selected in the division (Table B.2.D.1).

Table B.2.D.1 Abstract of New Candidate Plus Trees along with Existing Trees of Concerned Species in Kangsawati (North) Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Bombax ceiba*	01	0	01
2.	*Eucalyptus hybrid*	03	0	03
3.	*Terminalia arjuna*	01	0	01
	Total	**5**	**0**	**5**

B.2.D.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.D.1.1 *Bombax ceiba*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.D.1.1.1 Growth data of New Candidate Plus Trees of *Bombax ceiba* in Kangsawati (North) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KSC(N)/PC/BC/1	21	17	1.8	7	8	10	10	10

B.2.D.1.2 *Eucalyptus hybrid*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.D.1.2.1 Growth data of New Candidate Plus Trees of *Eucalyptus hybrid* in Kangsawati (North) Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KSC(N)/PC/EH/1	21	18	1.1	4	5	10	10	10
KSC(N)/PC/EH/2	22	17	1.5	7	6	10	10	10
KSC(N)/PC/EH/3	20	14	1.15	6	10	10	10	10

B.2.D.1.3 *Terminalia arjuna*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.D.1.3.1 Growth data of New Candidate Plus Trees of *Terminalia arjuna* in Kangsawati (North) Division

Tree No.		Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark thickness (mm)	Stem Straightness	Stem Form	Infection
KSC(N)/PC/TA/1	19	10	1.3	8	11	9	10	10	10

B.2.E Medinipur Division

10 new candidate plus trees of 7 species were selected in the division (Table B.2.E.1). No existing tree was there in the division of the concerned species.

Table B.2.E.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Medinipur Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Anogeissus latifolia*	01	0	01
2.	*Buchanania cochinchinensis*	03	0	03
3.	*Dalbergia latifolia*	01	0	01
4.	*Diospyros melanoxylon*	01	0	01
5.	*Pterocarpus santalinus*	01	0	01
6.	*Tectona grandis*	02	0	02
7.	*Terminalia bellirica*	01	04	05
	Total	**10**	**04**	**14**

B.2.E.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.E.1.1 *Anogeissus latifolia*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.1.1 Growth data of New Candidate Plus Tree of *Anogeissus latifolia* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/AL/1	25	3.5	1.45	12	8	10	10	10

B.2.E.1.2 *Buchanania cochinchinensis*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.2.1 Growth data of New Candidate Plus Trees of *Buchanania cochinchinensis* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/BC/1	13	7	0.76	3	4	10	10	10
MR/AB/BC/2	15	6.5	0.9	6	7	10	10	10
MR/AB/BC/3	16	7	0.86	5	5	10	10	10

B.2.E.1.3 *Dalbergia latifolia*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.3.1 Growth data of New Candidate Plus Trees of *Dalbergia latifolia* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/DL/1	22	10	0.85	6	6	10	10	10

B.2.E.1.4 *Diospyros melanoxylon*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.4.1 Growth data of New Candidate Plus Trees of *Diospyros melanoxylon* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/DM/1	14	5.5	0.76	4	6	10	10	10

B.2.E.1.5 *Pterocarpus santalinus*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.5.1 Growth data of New Candidate Plus Trees of *Pterocarpus santalinus* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/PS/1	24	10	1.2	10	11	10	10	10

B.2.E.1.6 *Tectona grandis*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.6.1 Growth data of New Candidate Plus Trees of *Tectona grandis* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/TG/1	21	12	1.2	12	6	10	10	10
MR/AB/TG/2	19	8	1.05	8	7	10	10	10

B.2.E.1.7 *Terminalia bellirica*

1 new candidate plus trees was selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.E.1.7.1 Growth data of New Candidate Plus Trees of *Terminalia bellirica* in Medinipur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
MR/AB/TG/1	21	10	1.5	11	13	10	10	10

B.2.F Roopnarayanpur Division

1 tree of *Pterocarpus santalinus* was selected in the division (Table B.2.F.1). No existing tree of the species was there in the division.

Table B.2.F.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Roopnarayanpur Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Pterocarpus santalinus*	01	0	01

B.2.F.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.2.F.1.1 *Pterocarpus santalinus*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.2.F.1.1.1 Growth data of New Candidate Plus Trees of *Pterocarpus santalinus* in Roopnarayanpur Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
RN/MN/PS/1	25	13	1.7	10	9	10	10	10

3. Silviculture Hill

New candidate plus trees were selected in four (3) division of the circle, named as follow:

a. **Darjeeling Hill**
b. **Darjeeling Wildlife**
c. **Kalimpong**
d. **Kurseong**

The details of selected new candidate plus trees along with its evaluation is discussed as follow:

B.3.A Darjeeling Hill Division

25 new candidate plus trees of 5 species were selected in the division. 2 existing trees were there of *Alnus nepalensis* (table B.3.A.1).

Table B.3.A.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Darjeeling Hill Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1	*Alnus nepalensis*	10	2	12
2	*Bucklandia populnea*	5	0	5
3	*M. champaca*	2	0	2
4	*Shorea robusta*	2	0	2
5	*Tectona grandis*	6	0	6
Total		**25**	**2**	**27**

B.3.A.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.3.A.1.1 *Alnus nepalensis*

10 new candidate plus trees along with two existing screened in trees were found in the division. Growth parameters of same are as below:

Table B.3.A.1.1.1 Growth data of Selected New Candidate Plus trees and Existing Plus of *Alnus nepalensis* in Darjeeling Hill Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DJ/TK/AN/1	**24**	**20**	**0.9**	**5**	**7**	**10**	**7**	**10**
DJ/TK/AN/2	**26**	**22**	**1.5**	**10**	**6**	**10**	**7**	**10**
DJ/TK/AN/3	**28**	**23**	**1.55**	**6**	**10**	**10**	**7**	**10**
DJ/TK/AN/4	**26**	**21**	**1.45**	**10**	**13**	**10**	**7**	**10**
DJ/TK/AN/5	**23**	**19**	**1.1**	**6**	**8**	**10**	**7**	**10**
DJ/TK/AN/6	**25**	**21**	**0.95**	**5**	**8**	**10**	**7**	**10**
DJ/TK/AN/7	**24**	**21**	**1.2**	**12**	**8**	**10**	**7**	**10**
DJ/TK/AN/8	**23**	**17**	**1.15**	**9**	**7**	**10**	**7**	**10**
DJ/TK/AN/9	**24**	**16**	**0.9**	**11**	**9**	**10**	**7**	**10**
DJ/TK/AN/10	**21**	**17**	**0.85**	**10**	**8**	**10**	**7**	**10**
AN 1	28	19	1.75	12	12	10	10	10
AN 2	32	24	1.85	8	12	10	10	10

** The bold texts are of New Candidate Selected Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.25, IV.26 & IV.27) and finally the total weightage score was computed as ahead:

Table B.3.A.1.1.2 Total Weightage Score of Selected Candidate Plus trees and Existing Plus of *Alnus nepalensis*in Darjeeling Hill Division

Tree No.	Total Weightage Score
DJ/TK/AN/1	77.25
DJ/TK/AN/2	87.25
DJ/TK/AN/3	90.5
DJ/TK/AN/4	86.25
DJ/TK/AN/5	75.75
DJ/TK/AN/6	79.25
DJ/TK/AN/7	82.25
DJ/TK/AN/8	74.25
DJ/TK/AN/9	74.5
DJ/TK/AN/10	72.5
AN 1	92.25
AN 2	99.25
Mean	**82.60**

** The bold texts are of New Selected Candidate Plus Trees*

All the trees are located over an area of 6 hectare, hence 7 trees can be selected as plus trees. **DJ/TK/AN/2, DJ/TK/AN/3 and DJ/TK/AN/4** has value more than the average, hence will be marked as plus trees. Remaining new candidate plus trees will be retained as candidate plus trees. Existing plus trees are in different location and will be retained as plus trees.

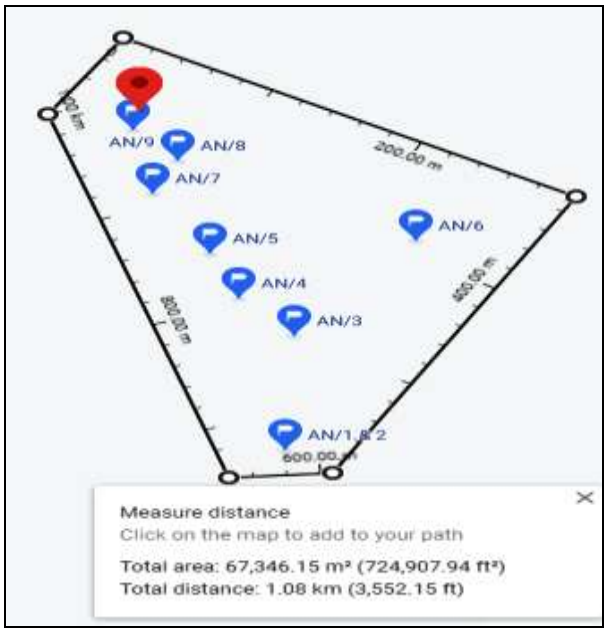


Fig. B.3.A.1.1.1 Area and Location of Different Trees of *Alnus nepalensis*in Darjeeling Division

B.3.A.1.2 *Bucklandia populnea*

5 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.A.1.2.1 Growth data of New Candidate Plus Trees of *Bucklandia populnea* in Darjeeling Hill Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DJ/TK/BP/1	29	24	1.35	14	12	10	10	10
DJ/TK/BP/2	26	20	2.2	12	6	10	10	10
DJ/TK/BP/3	28	21	2.25	6	8	10	10	10
DJ/TK/BP/4	29	18	2.15	13	6	10	10	10
DJ/TK/BP/5	27	22	2.3	5	4	10	10	10

B.3.A.1.3 *Michelia champaca*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.A.1.3.1 Growth data of New Candidate Plus Trees of *Michelia champaca* in Darjeeling Hill Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DJ/SU/MC/1	34	25	1.8	5	3	10	7	10
DJ/SU/MC/2	33	26	1.95	6	4	10	7	10

B.3.A.1.4 *Shorea robusta*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.A.1.4.1 Growth data of Selected New Candidate Plus Trees of *Shorea robusta* in Darjeeling Hill Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DJ/SU/SR/1	32	26	2.9	12	7	10	10	10
DJ/SU/SR/2	34	26	2.3	17	6	10	10	10

B.3.A.1.5 *Tectona grandis*

6 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.A.1.5.1 Growth data of New Candidate Plus Trees of *Tectona grandis* in Darjeeling Hill Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DJ/SU/TG/1	30	27	1.85	5	6	10	10	10
DJ/SU/TG/2	28	24	2.1	5	7	10	10	10
DJ/SU/TG/3	28	24	1.4	9	5	10	10	10
DJ/SU/TG/4	24	20	1.65	4.5	3	10	10	10
DJ/SU/TG/5	30	24	1.9	3	4	10	10	10
DJ/SU/TG/6	30	27	1.8	4.5	3	10	10	10

B.3.B Darjeeling Wildlife Division

14 new candidate plus trees of 2 species have been selected in the division. Lagerstroemia flos reginae had 3 existing plus trees, which were also taken for analysis purpose.

Table B.3.B.1 Abstract of New Candidate Plus Trees along with Existing Trees of Concerned Species in Darjeeling Wildlife Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Lagerstroemia flos reginae*	12	3	15
2.	*Shorea robusta*	2	0	2
	Total	**14**	**3**	**17**

B.3.B.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.3.B.1.1 *Lagerstroemia flos reginae*

12 new candidate plus trees were selected in division. 3 already existed plus trees were there. Growth data of same is as below:

Table B.3.B.1.1.1 Growth data of Selected New Candidate Plus trees & Existing Plus Trees of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DW/SU/LF/1	**18**	**7**	**1.7**	**4.5**	**5**	**10**	**10**	**10**
DW/SU/LF/2	**19**	**10.5**	**1.95**	**9.5**	**5**	**10**	**10**	**10**
DW/SU/LF/3	**27**	**18**	**2.15**	**6**	**5**	**10**	**10**	**10**
DW/SU/LF/4	**25**	**13**	**1.95**	**8**	**7**	**10**	**10**	**10**
DW/SU/LF/5	**28**	**12**	**1.85**	**11**	**5**	**10**	**10**	**10**
DW/SU/LF/6	**25**	**13**	**1.8**	**11**	**3**	**10**	**10**	**10**
DW/SU/LF/7	**24**	**14**	**1.75**	**6.5**	**4**	**10**	**10**	**10**
DW/SU/LF/8	**25**	**17**	**1.3**	**5**	**4**	**10**	**10**	**10**
DW/SU/LF/9	**21**	**10**	**1.9**	**8.5**	**7**	**10**	**10**	**10**
DW/SU/LF/10	**26**	**12**	**1.85**	**7**	**5**	**10**	**10**	**10**
DW/SU/LF/11	**28**	**16**	**1.65**	**8**	**6**	**10**	**10**	**10**
DW/SU/LF/12	**29**	**15**	**2.15**	**8.5**	**7**	**10**	**10**	**10**
KYAN/LF/1	18	6.5	2.2	11	12	7	10	10
KYAN/LF/2	17.5	11	1.55	9	6	7	7	10
PANCH/LF/3	18	9	1.5	7.5	8	7	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.28, IV.29 & IV.30) and finally the total weightage score was computed as below:

Table B.3.B.1.1.2 Total Weightage Score of Selected New CandidatePlus and Existing Plus trees of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Tree No.	Total Weightage Score
DW/SU/LF/1	80.25
DW/SU/LF/2	85
DW/SU/LF/3	98.5
DW/SU/LF/4	91.5
DW/SU/LF/5	91.25
DW/SU/LF/6	89.5
DW/SU/LF/7	89.25
DW/SU/LF/8	88.5
DW/SU/LF/9	86.5
DW/SU/LF/10	89
DW/SU/LF/11	92.75
DW/SU/LF/12	97
KYAN/LF/1	81.5
KYAN/LF/2	72
PANCH/LF/3	76.5
Mean	**87.27**

** The bold texts are of New Selected Candidate Plus Trees*

At SMWS location, all the trees are located over an area more than 6 hectares, hence **DW/SU/LF/3, DW/SU/LF/4, DW/SU/LF/5, DW/SU/LF/6, DW/SU/LF/7** and**DW/SU/LF/8** will be marked as plus trees (having values more than the average). In Kyanuka location trees are located over a large area. Hence all trees excluding **DW/SU/LF/9**will be marked as plus trees. Remaining trees of both locations will be marked as candidate plus trees.

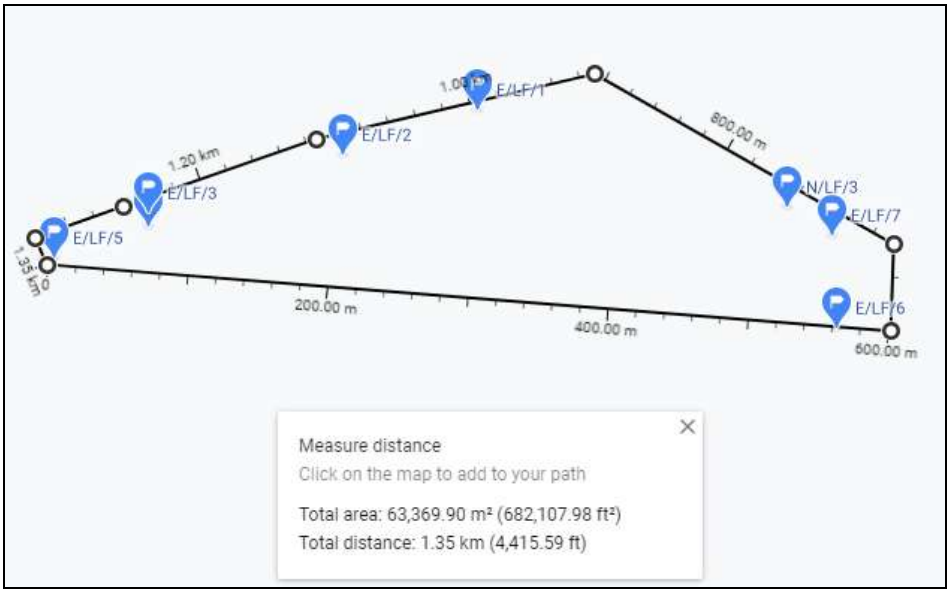


Fig. B.3.B.1.1.1 Area and Location of Different Trees of *Lagerstroemia flos reginae* at MWLS Location in Darjeeling Wildlife Division

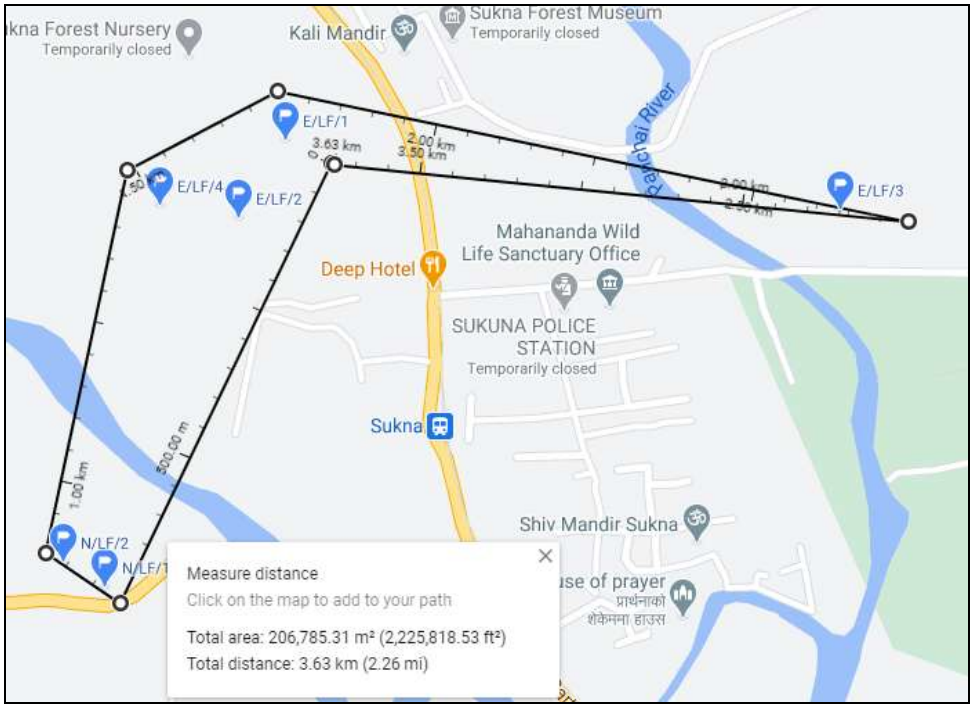


Fig. B.3.B.1.1.1 Area and Location of Different Trees of *Lagerstroemia flos reginae* at Kyanuka Location in Darjeeling Wildlife Division

B.3.B.1.2 *Shorea robusta*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.B.1.2.1 Growth data of New Candidate Plus Trees of *Shorea robusta* in Darjeeling wildlife Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
DW/SU/SR/1	28	19	1.6	7.5	5	10	7	10
DW/SU/SR/2	27	15	1.85	5	5	10	10	10

B.3.C Kalimpong Division

In totality, 72 new candidate plus trees of 11 species were selected in the division. 54 evaluated trees of 8 species were also there. The growth data of same is as follow:

Table B.3.C.1 Abstract of New Candidate Plus Trees Along With Existing Trees of Concerned Species in Kalimpong Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Alnus nepalensis*	10	15	25
2.	*Anthocephalus cadamba*	3	0	3
3.	*Bucklandia populnea*	4	5	9
4.	*Cinnamomum cecidodaphne*	5	15	20
5.	*Lagerstroemia flos reginae*	7	3	10
6.	*Michelia champaca*	14	1	15
7.	*Michelia excelsa*	3	7	10
8.	*Quercus lamellosa*	2	0	2
9.	*Shorea robusta*	7	1	8
10.	*Tectona grandis*	10	2	12
11.	*Terminalia myriocarpa*	7	5	12
Total		**72**	**54**	**126**

B.3.C.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.3.C.1.1 *Alnus nepalensis*

In totality, 25 trees are there in the division. Growth data of same is as follow:

Table B.3.C.1.1.1 Growth data of New candidate Plus Trees & Existing Plus Trees of *Alnus nepalensis* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/AG/AN/1	**16**	**5**	**2.2**	**10**	**12**	**10**	**10**	**10**
KP/AG/AN/2	**20**	**12**	**1.4**	**12**	**9**	**10**	**10**	**10**
KP/AG/AN/3	**21**	**16**	**1.3**	**10**	**8**	**10**	**10**	**10**
KP/AG/AN/4	**22**	**13**	**1.7**	**10**	**14**	**10**	**10**	**10**
KP/AG/AN/5	**25**	**12**	**2**	**15**	**14**	**10**	**10**	**10**
KP/AG/AN/6	**21**	**17**	**1.2**	**13**	**8**	**10**	**10**	**10**
KP/AG/AN/7	**22**	**14**	**1.5**	**8**	**7**	**10**	**10**	**10**
KP/AG/AN/8	**23**	**18**	**1.4**	**5**	**6**	**10**	**10**	**10**
KP/AG/AN/9	**21**	**17**	**1.25**	**4**	**5**	**10**	**10**	**10**
KP/AG/AN/10	**26**	**21**	**1.42**	**6**	**6**	**10**	**10**	**10**
LAVA/AN/4	25	9	2.15	10	16	10	7	10
LAVA/AN/5	28	18	1.6	10	12	10	7	10
MEYO/AN/6	21	15	2.2	10	9	10	7	10
MEYO/AN/7	22	14	2.7	6	8	10	7	10
MEYO/AN/8	20	15	2.15	8	7	10	7	10
MEYO/AN/9	21	15	2.85	3	8	10	7	10
MEYO/AN/10	20	4	2.85	14	12	10	7	10
MEYO/AN/11	18	3.5	1.95	7	6	10	7	10
MEYO/AN/12	20	5	2.4	4	5	10	7	10
MEYO/AN/13	25	11	2.7	14	13	7	10	10
MEYO/AN/14	20	13	2.1	7	6	10	7	10
MEYO/AN/15	22	10	2.6	9	7	10	7	10
MEYO/AN/16	24	19	3.2	14	12	10	7	10
MEYO/AN/18	23	18	2.55	6	6	7	7	10
MEYO/AN/19	20	15	2.2	7	5	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. on the basis of commercial

use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.31, IV.32 & IV.33) and finally the total weightage score was computed as below:

Table B.3.C.1.1.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Alnus nepalensis*in Kalimpong Division

Tree No.	Total Weightage Score
KP/AG/AN/1	**81**
KP/AG/AN/2	**84.5**
KP/AG/AN/3	**87.75**
KP/AG/AN/4	**86.25**
KP/AG/AN/5	**90.25**
KP/AG/AN/6	**86.25**
KP/AG/AN/7	**85.75**
KP/AG/AN/8	**89**
KP/AG/AN/9	**85**
KP/AG/AN/10	**92.25**
LAVA/AN/4	83.5
LAVA/AN/5	88.5
MEYO/AN/6	85.25
MEYO/AN/7	85
MEYO/AN/8	83.75
MEYO/AN/9	88.75
MEYO/AN/10	82.5
MEYO/AN/11	76
MEYO/AN/12	79
MEYO/AN/13	87.75
MEYO/AN/14	81.25
MEYO/AN/15	83.25
MEYO/AN/16	93.5
MEYO/AN/18	84.25
MEYO/AN/19	83.25
Mean	**85.34**

** The bold texts are of New Selected Candidate Plus Trees*

At lava both the trees are very close to each other, hence only LAVA/AN/5 will be retained as plus trees and other as candidate plus tree. At Payong and Mayong location all trees are within 4 hectare, only 4 trees can be retained as plus trees (MEYO/AN/16, MEYO/AN/9, MEYO/AN/13 and **KP/AG/AN/4**). Remaining trees in the location will be marked as candidate plus trees. At Damsung location all trees are located within 10 hectare, hence all the new candidate plus trees in the location except **KP/AG/AN/9** will be marked as plus trees.**KP/AG/AN/9** will be retained as candidate plus tree**.**

Fig. B.3.C.1.1.1 Area and Location of Different Trees of *Alnus nepalensis at* Lava Locationin Kalimpong Division

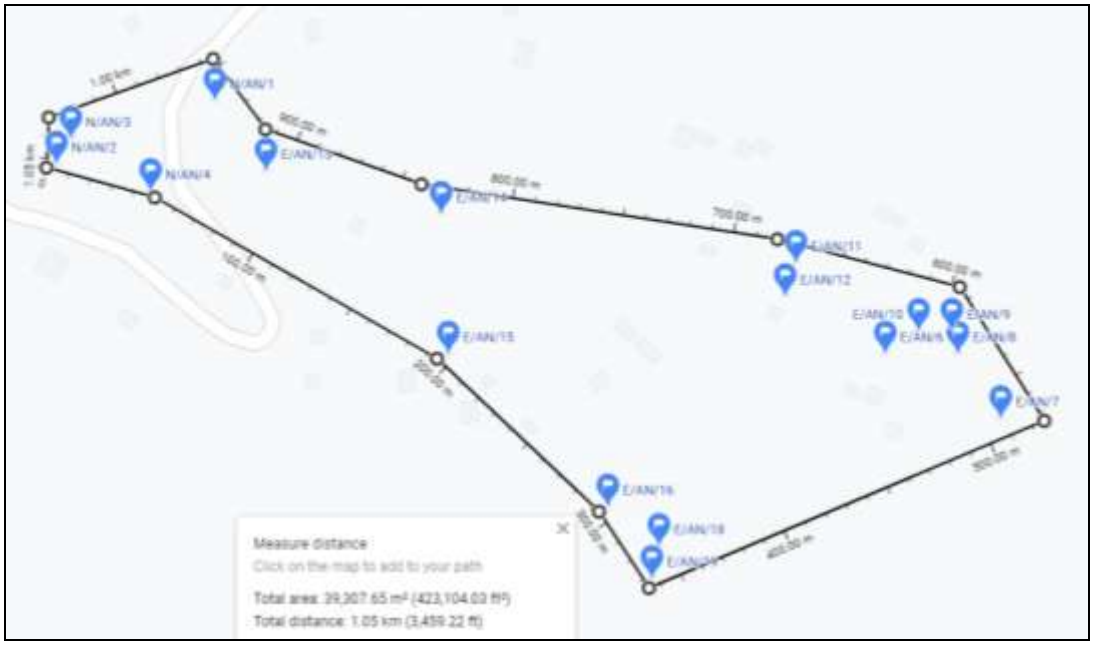


Fig. B.3.C.1.1.2 Area and Location of Different Trees of *Alnus nepalensis at* Meyong and Payong Locationin Kalimpong Division

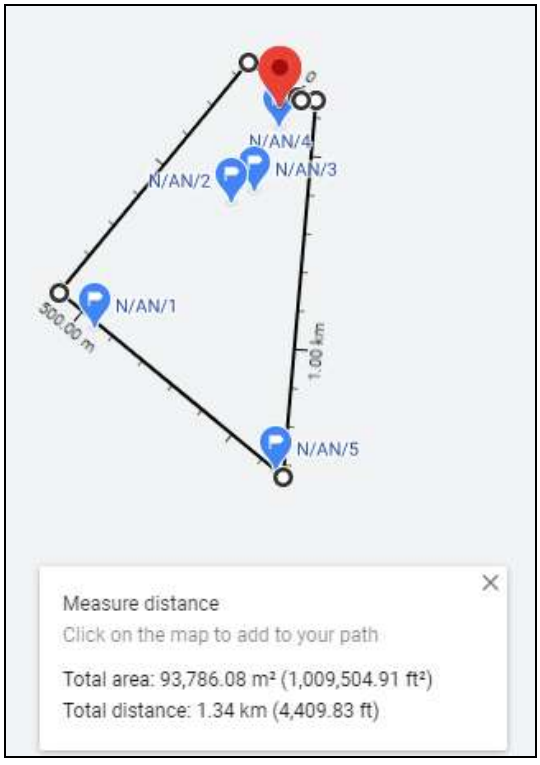


Fig. B.3.C.1.1.3 Area and Location of Different Trees of *Alnus nepalensis at* Damsung Locationin Kalimpong Division

B.3.C.1.2 *Anthocephalus cadamba*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.C.2.1 Growth data of New Candidate Plus Trees of *Anthocephalus cadamba* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/NR/AC/1	20	18	1.82	8	10	10	10	10
KP/NR/AC/2	19	12	1.83	11	15	10	10	10
KP/NR/AC/3	21	7	1.36	7	10	10	10	10

B.3.C.1.3 *Bucklandia populnea*

4 new candidate plus trees and 5 existing evaluated plus trees were there in division. Growth data of trees is presented in the table below:

Table B.3.C.1.3.1 Growth data of Selected New Candidate Plus Trees and Existing Plus Trees of *Bucklandia populnea* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/AG/BP/1	**21**	**4**	**1.75**	**8**	**6**	**10**	**10**	**10**
KP/AG/BP/2	**28**	**10**	**1.55**	**8**	**18**	**10**	**10**	**10**
KP/AG/BP/3	**24**	**10**	**1.6**	**13**	**17**	**10**	**10**	**10**
KP/AG/BP/4	**24**	**5**	**1.75**	**9**	**13**	**10**	**10**	**10**
BOKH/BP/1	17	12	1.1	6	13	10	7	10
PEML/BP/2	25	11	3.2	3	6	10	7	10
PEML/BP/3	27	12	2.7	4	7	10	7	10
PEML/BP/4	25	11	3.2	6	8	10	7	10
PEML/BP/7	14.5	3.5	1.3	6	8	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

After giving scores and weightage to each trait (Annexure-IV, Table IV.34, IV.35 & IV.36), the total scores of the trees are as below:

Table B.3.C.1.3.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Trees of *Bucklandia populnea* in Kalimpong Division

Tree No.	Total Weightage Score
KP/AG/BP/1	**81.5**
KP/AG/BP/2	**91.5**
KP/AG/BP/3	**90.5**
KP/AG/BP/4	**83.75**
BOKH/BP/1	80.5
PEML/BP/2	92
PEML/BP/3	91.75
PEML/BP/4	92.5
PEML/BP/7	72
Mean	**86.22**

** The bold texts are of New Selected Candidate Plus Trees*

All the new selected trees are in one location and very close to each other, except**KP/AG/BP/1,** which is more than 1 km away. Hence **KP/AG/BP/2 will be selected as plus tree and remaining all will be retained as candidate plus trees.** PEML/BP/2, PEML/BP/3 and PEML/BP/4 are located with 1 hectare. Hence only 1 tree will be retained as plus tree (PEML/BP/4). Remaining 2 will be marked as candidate plus trees. PEML/BP/7 and BOKH/BP/1 are in different locations, hence will be retained as plus trees.

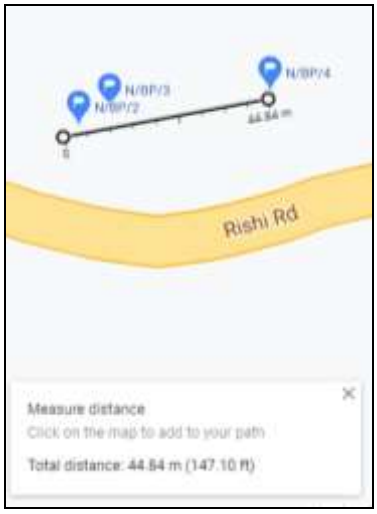


Fig. B.3.C.1.3.1 Area and Location of Different Trees of *Bucklandia populnea* at Rashmi Location in Kalimpong Division

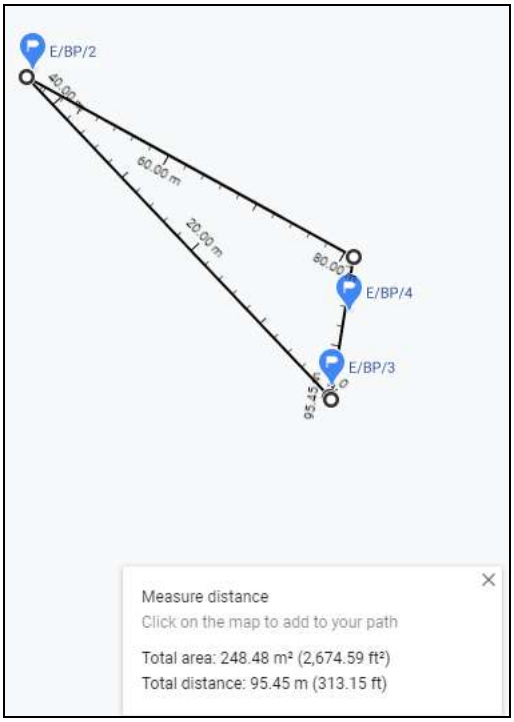


Fig. B.3.C.1.3.2 Area and Location of Different Trees of *Bucklandia populnea* at Pemling Location in Kalimpong Division

B.3.C.1.4 *Cinnamomum cecidodaphne*

5new candidate plus trees were selected in the division, which were phenotypically good. 15 existing trees were also there in the division. Growth data of same is as follow:

Table B.3.C.1.4.1 Growth data of New Candidate Plus Trees of *Cinnamomum cecidodaphne in* Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
SAMS/CC/1	30	5	3.7	12	8	10	10	10
SAMS/CC/2	25	7	2.35	6	15	7	10	10
SAMS/CC/3	20	3	0.95	6	9	10	10	10
SAMS/CC/4	25	8	2.4	8	7	10	7	10
SAMS/CC/5	25	4	2.4	5	6	7	10	10
SAMS/CC/6	28	8	2.55	7	12	7	7	10
SAMS/CC/7	25	4	1.9	7	9	7	10	10
SAMS/CC/8	26	5	2	8	10	7	10	10
SAMS/CC/9	20	4	2.35	7	11	7	7	10
SAMS/CC/10	26	2	2.5	8	10	10	10	10
SAMS/CC/11	22	9	2.3	7	6	7	10	10
SAMS/CC/12	20	4	1.35	6	9	7	7	10
SAMS/CC/13	21	3	1.8	4	6	7	7	10
SAMS/CC/14	20	5	2.3	7	10	7	10	10
SAMS/CC/15	20	6	2.7	7	10	10	10	10
KP/NR/CC/1	**19**	**6**	**1.86**	**6**	**9**	**10**	**10**	**10**
KP/NR/CC/2	**20**	**7**	**1.76**	**8**	**6**	**10**	**10**	**10**
KP/NR/CC/3	**20**	**15**	**1.59**	**9**	**8**	**10**	**10**	**10**
KP/NR/CC/4	**21**	**14**	**1.83**	**10**	**6**	**10**	**10**	**10**
KP/NR/CC/5	**16**	**7**	**1.46**	**6**	**5**	**10**	**10**	**10**

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.37, IV.38 & IV.39) and finally the total weightage score was computed as below:

Table B.3.C.1.4.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

Tree No.	Total Weightage Score
SAMS/CC/1	93.5
SAMS/CC/2	83.25
SAMS/CC/3	78.25
SAMS/CC/4	84.75
SAMS/CC/5	80.25
SAMS/CC/6	82
SAMS/CC/7	78.75
SAMS/CC/8	81
SAMS/CC/9	73.5
SAMS/CC/10	85.5
SAMS/CC/11	83
SAMS/CC/12	69.25
SAMS/CC/13	70.75
SAMS/CC/14	79.75
SAMS/CC/15	88.25
KP/NR/CC/1	82.25
KP/NR/CC/2	82.25
KP/NR/CC/3	88.75
KP/NR/CC/4	88.75
KP/NR/CC/5	78.5
Mean	**81.61**

** The bold texts are of New Selected Candidate Plus Trees*

All the plus trees were distributed over an area more than 1 hectare (Fig. B.3.C.1.4.1), hence 2 trees will be retained as plus trees (SAMS/CC/1 and SAMS/CC/15) and rest will be marked as candidate plus trees except SAMS/CC/12, which will be deleted from the list. Likewise all the selected candidate plus trees are distributed within 1 hectare area (Fig. B.3.C.1.4.1), so **KP/NR/CC/3** will be marked as plus tree and remaining will be retained as candidate plus trees.

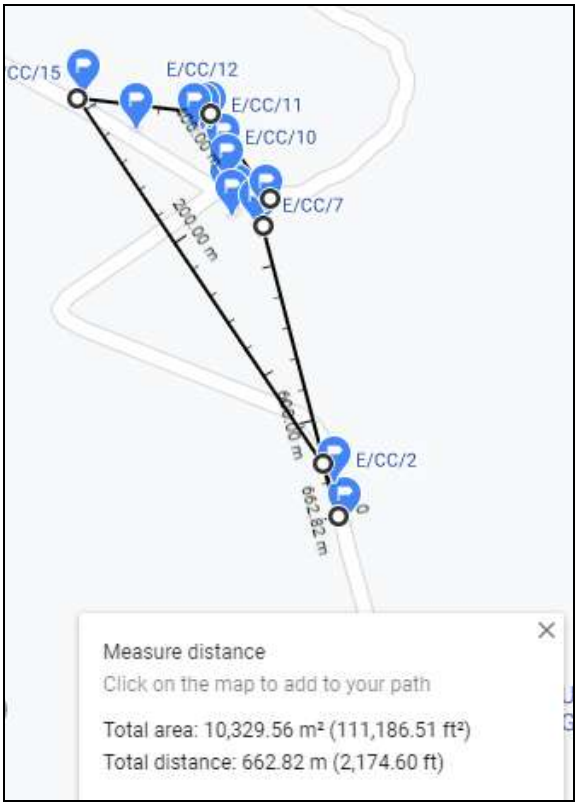


Fig. B.3.C.1.4.1 Area and Location of Existing Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

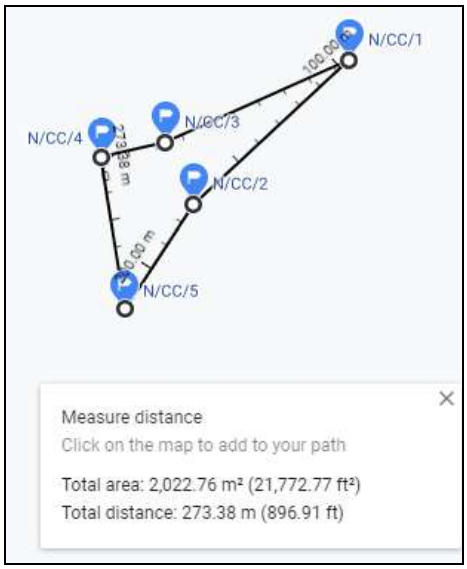


Fig. B.3.C.1.4.2 Area and Location of New Candidate Plus Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

B.3.C.1.5 *Lagerstroemia flos reginae*

7 new candidate plus trees and 3 existing plus trees were selected in the division, which were phenotypically good. Growth data of same is as follow:

Table B.3.C.1.5.1 Growth data of New Candidate Plus Trees and Existing Plus Trees of *Lagerstroemia flos reginae* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KHUM/LF/1	16	6	1.65	7	11	7	7	10
KHUM/LF/2	20	2	1.75	7	7	7	7	10
KHUM/LF/3	21	10	1.8	4	11	10	7	10
KP/NR/LF/1	**12**	**7**	**0.93**	**7**	**6**	**10**	**10**	**10**
KP/NR/LF/2	**13**	**10**	**1.15**	**5**	**7**	**10**	**10**	**10**
KP/NR/LF/3	**15**	**5**	**1.04**	**6**	**8**	**10**	**10**	**10**
KP/NR/LF/4	**14**	**8**	**1.35**	**10**	**6**	**10**	**10**	**10**
KP/NR/LF/5	**13**	**11**	**1.04**	**8**	**10**	**10**	**10**	**10**
KP/NR/LF/6	**12**	**7**	**1.04**	**7**	**6**	**10**	**10**	**10**
KP/NR/LF/7	**13**	**5.5**	**1**	**6**	**5**	**10**	**10**	**10**

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.40, IV.41 & IV.42) and finally the total weightage score was computed as below:

Table B.3.C.1.5.2 Total Weightage Score of New Candidate Plus Trees of *Lagerstroemia flos reginae* in Kalimpong Division

Tree No.	Total Weightage Score
KHUM/LF/1	83.5
KHUM/LF/2	82
KHUM/LF/3	94.5
KP/NR/LF/1	81
KP/NR/LF/2	86.5
KP/NR/LF/3	80.5
KP/NR/LF/4	89
KP/NR/LF/5	85.75
KP/NR/LF/6	81
KP/NR/LF/7	78.5
Mean	**84.23**

New and existing trees were in the different locations. The existing trees were located within 1 hectare (B.3.C.1.5.2), hence only 1 tree will be retained as plus tree (KHUM/LF/3) and remaining 2 will be marked as candidate plus trees. Likewise, all the new candidate plus trees were within 1 hectare area (B.3.C.1.5.2), hence only 1 tree will be marked as plus tree (**KP/NR/LF/4**) and remaining all will be retained as candidate plus trees.

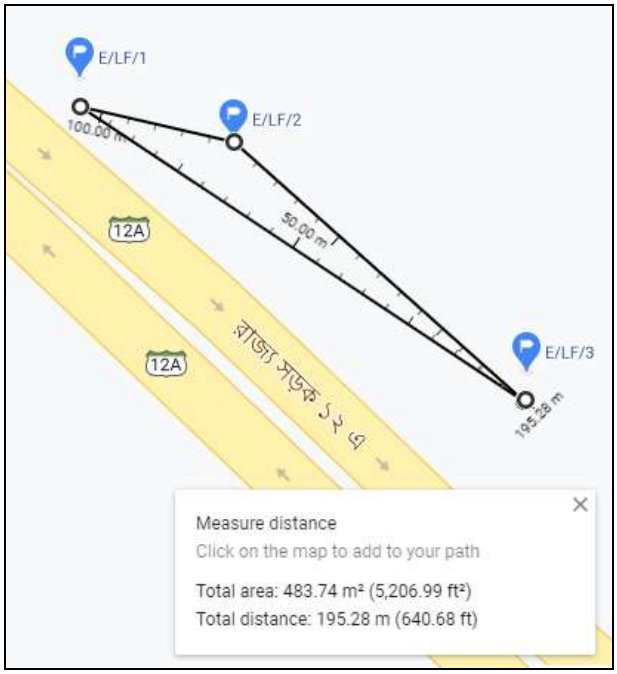


Fig. B.3.C.1.5.1 Area and Location of Existing Trees of *Lagerstroemia flos reginae* at Khumani Location in Kalimpong Division

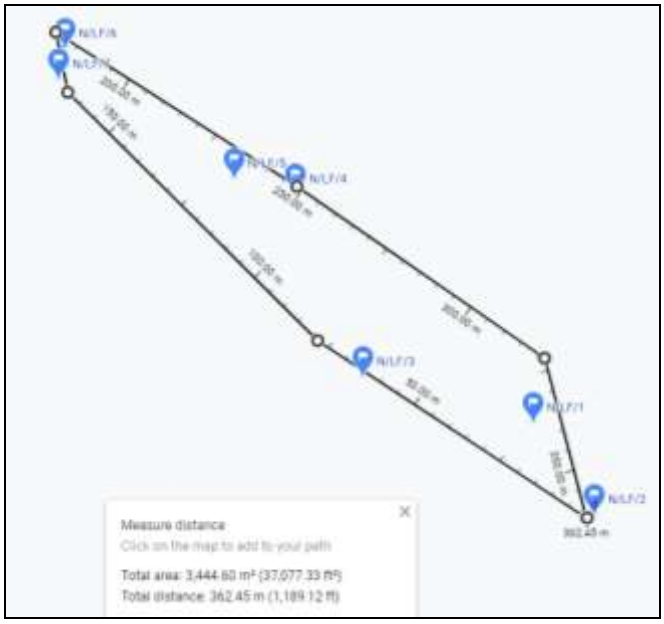


Fig. B.3.C.1.5.2 Area and Location of New Trees of *Lagerstroemia flos reginae* at Newra Location in Kalimpong Division

B.3.C.1.6 *Michelia champaca*

14 new candidate plus trees have been selected in the division. 1 existing plus tree was also there after screening. Growth data of same is as below:

Table B.3.C.1.6.1 Growth data of New Candidate Plus Trees and Existing Plus Trees of *Michelia champaca in* Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/NR/MC/1	**16**	**12**	**1.66**	**7**	**5**	**10**	**10**	**10**
KP/NR/MC/2	**21**	**15**	**1.6**	**10**	**7**	**10**	**10**	**10**
KP/NR/MC/3	**22**	**16**	**1.43**	**6**	**8**	**10**	**10**	**10**
KP/NR/MC/4	**21**	**16**	**1.92**	**7**	**9**	**10**	**10**	**10**
KP/NR/MC/5	**18**	**13**	**1.9**	**7**	**5**	**10**	**10**	**10**
KP/NR/MC/6	**22**	**17**	**1.8**	**7**	**5**	**10**	**10**	**10**
KP/NR/MC/7	**20**	**16**	**1.7**	**8**	**8**	**10**	**10**	**10**
KP/NR/MC/8	**18**	**13**	**1.55**	**6**	**6**	**10**	**10**	**10**
KP/NR/MC/9	**18**	**12**	**1.45**	**6**	**7**	**10**	**10**	**10**
KP/NR/MC/10	**20**	**15**	**1.45**	**5**	**6**	**10**	**10**	**10**
KP/NR/MC/11	**22**	**15**	**1.25**	**5**	**6**	**10**	**10**	**10**
KP/NR/MC/12	**20**	**15**	**1.55**	**7**	**7**	**10**	**10**	**10**
KP/NR/MC/13	**19**	**12**	**1.6**	**8**	**8**	**10**	**10**	**10**
KP/NR/MC/14	**17**	**9**	**1.56**	**7**	**10**	**10**	**10**	**10**
CHUR/MC/1	25	14	1.95	5	11	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

After all the analysis (Annexure-IV, Table IV.43, IV.44 & IV.45), the total weighted scores are as below:

Table B.3.C.1.6.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Trees of *Michelia champaca* in Kalimpong Division

Tree No.	Total Weightage Score
KP/NR/MC/1	82.75
KP/NR/MC/2	90.5
KP/NR/MC/3	91.5
KP/NR/MC/4	96.25
KP/NR/MC/5	90.25
KP/NR/MC/6	95.25
KP/NR/MC/7	94.5
KP/NR/MC/8	86.25
KP/NR/MC/9	82.25
KP/NR/MC/10	87.5
KP/NR/MC/11	87
KP/NR/MC/12	90
KP/NR/MC/13	85
KP/NR/MC/14	81.5
CHUR/MC/1	97
Mean	**89.16**

** The bold texts are of New Candidate Plus Trees*

KP/NR/MC/1, KP/NR/MC/2, KP/NR/MC/3, KP/NR/MC/4 and **KP/NR/MC/5** are in same location (Fig . B.3.C.1.6.1) within 2 hectare area. **KP/NR/MC/3** and **KP/NR/MC/5** will be marked as plus trees and remaining 3 will be retained as candidate plus trees. However **KP/NR/MC/6** and **KP/NR/MC/7** are far away i.e more than 1 kilometer from this location. Both will be marked as plus trees. At Khumani, all trees are within 3 hectare area (Fig . B.3.C.1.6.2), hence 3 trees can be marked as plus tree. But as **KP/NR/MC/12** hasscored more than the average, hence only **KP/NR/MC/12** will be marked as plus tree and remaining as candidate plus trees.CHUR/MC/1 will be retained as plus tree as falls under different location.

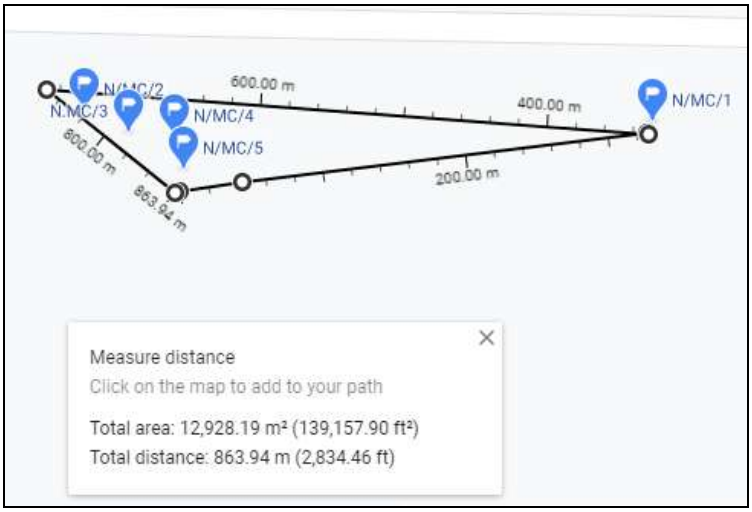


Fig. B.3.C.1.6.1 Area and Location of Different Trees of *Michelia champaca* at Burhokola Location in Kalimpong Division

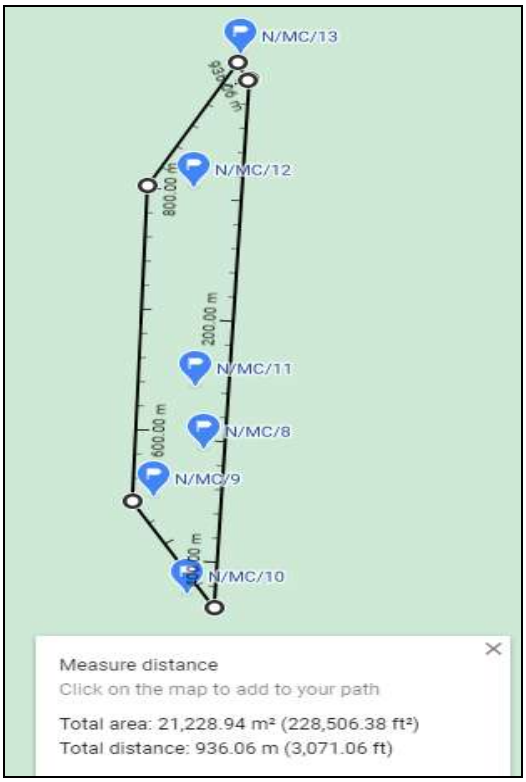


Fig. B.3.C.1.6.2 Area and Location of Different Trees of *Michelia champaca* at Khumani Location in Kalimpong Division

B.3.C.1.7 *Michelia excelsa*

In totality, 10 trees of the species were there in the division. Growth data of same is as below:

Table B.3.C.1.7.1 Growth data of New Candidate Plus Trees and Existing Plus Trees of *Michelia excelsa* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/AG/ME/1	**10**	**5**	**1.21**	**6**	**11**	**10**	**10**	**10**
KP/AG/ME/2	**14.5**	**5**	**1.3**	**6**	**11**	**10**	**10**	**10**
KP/AG/ME/3	**8**	**8**	**1.3**	**10**	**7**	**10**	**10**	**10**
LAVA/ME/1	15	9	1.2	6	10	10	7	10
LAVA/ME/2	17	6	1.45	6	12	10	7	10
LAVA/ME/3	18	11	1.25	6	13	10	7	10
LAVA/ME/4	14	10	1.1	6	12	10	7	10
LAVA/ME/5	17	11	1.1	7	9	10	7	10
LAVA/ME/8	16	10	0.9	4	10	7	7	10
LAVA/ME/6	12	5.5	1.3	5	13	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.46, IV.47 & IV.48) and finally the total weightage score was computed as below:

Table B.3.C.1.7.2 Total Weightage Score of Selected New Plus Trees and Existing Plus Trees of *Michelia excelsa* in Kalimpong Division

Tree No.	Total Weightage Score
KP/AG/ME/1	82.5
KP/AG/ME/2	87.5
KP/AG/ME/3	87.25
LAVA/ME/1	87
LAVA/ME/2	86.75
LAVA/ME/3	92.75
LAVA/ME/4	85.75
LAVA/ME/5	88.5
LAVA/ME/8	80.25
LAVA/ME/6	81.5
Mean	**85.98**

** The bold texts are of New Selected Candidate Plus Trees*

Trees were distributed over 2 different locations. All the new candidate plus trees along with LAVA/ME/6 were at Panikhasari location and distributed within 1 hectare area (Fig. B.3.C.1.7.1). **KP/AG/ME/1**will be marked as plus tree and remaining 3 will be retained as candidate plus trees. In Lava location too, trees are distributed within 1 hectare area (Fig. B.3.C.1.7.1), hence LAVA/ME/3 will be retained as plus tree and remaining will be marked as candidate plus trees.

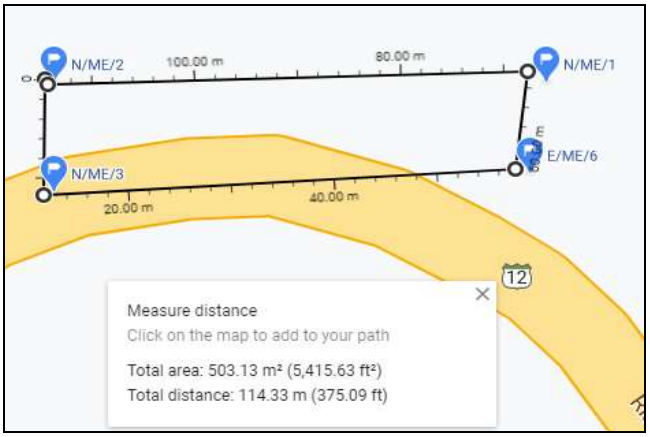


Fig. B.3.C.1.7.1 Area and Location of Different Trees of *Michelia excelsa* at Panikhasari Location in Kalimpong Division

Fig. B.3.C.1.7.2 Area and Location of Different Trees of *Michelia excelsa* at Lava Location in Kalimpong Division

B.3.C.1.8 *Quercus lamellosa*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.C.1.8.1 Growth data of New Candidate Plus Trees of *Quercus lamellosa* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/LV/QL/1	17	4	1.75	16	11	10	10	10
KP/LV/QL/2	21	3	1.85	10	13	10	10	10

B.3.C.1.9 *Shorea robusta*

7 new candidate plus trees and 1 existing plus tree was located in the division. Growth data of trees is as below:

Table B.3.C.1.9.1 Growth data of New Candidate Plus Trees & Existing Plus Treesof *Shorea robusta* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/NR/SR/1	**22**	**16**	**1.56**	**4**	**4**	**10**	**10**	**10**
KP/NR/SR/2	**23**	**18**	**1.24**	**4**	**4**	**10**	**10**	**10**
KP/NR/SR/3	**23**	**14**	**1.41**	**5**	**7**	**10**	**10**	**10**
KP/NR/SR/4	**20**	**15**	**1.38**	**5**	**6**	**10**	**10**	**10**
KP/NR/SR/5	**18**	**13**	**1.24**	**4**	**8**	**10**	**10**	**10**
KP/NR/SR/6	**21**	**11**	**1.8**	**9**	**6**	**10**	**10**	**10**
KP/NR/SR/7	**20**	**8**	**1.54**	**5**	**8**	**10**	**10**	**10**
CHURA/SR/1	30	22	3	7	11	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.49, IV.50 & IV.51) and finally the total weightage score was computed as below:

Table B.3.C.1.9.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Trees of***Shorea robusta*** **in Kalimpong Division**

Tree No.	Total Weightage Score
KP/NR/SR/1	**81.75**
KP/NR/SR/2	**85.25**
KP/NR/SR/3	**83.75**
KP/NR/SR/4	**80.75**
KP/NR/SR/5	**78.75**
KP/NR/SR/6	**83**
KP/NR/SR/7	**77**
CHURA/SR/1	99.5
Mean	**83.72**

** The bold texts are of New Selected Candidate Plus Trees*

All the new candidate plus trees except **KP/NR/SR/3** (1.7 km away from the cluster) are within 1 hectare area (Fig. B.3.C.1.9.1**)**. Hence **KP/NR/SR/2 and KP/NR/SR/3** will be marked as plus trees and remaining as candidate plus trees. CHURA/SR/1 is located in different location, so will be retained as plus tree.

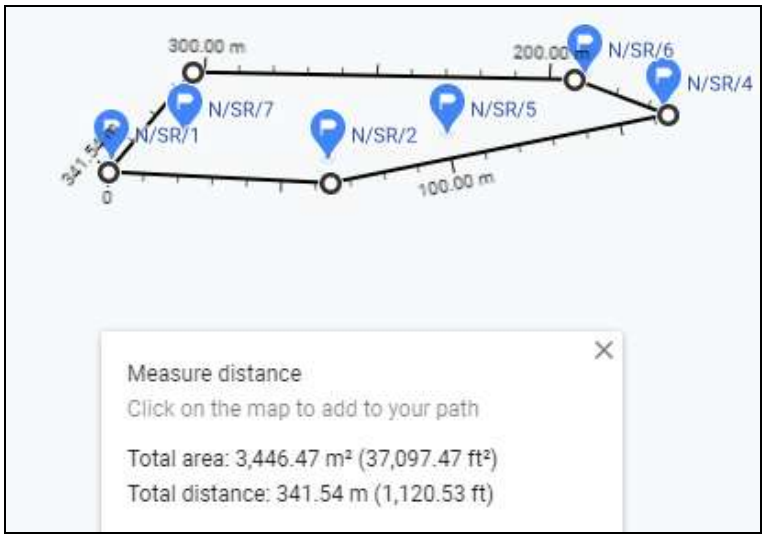


Fig. B.3.C.1.9.1 Area and Location of Different Trees of *Shorea robusta* in Kalimpong Division

B.3.C.1.10. *Tectona grandis*

In totality 12 trees including 10 new candidate plus trees were located in the division. The growth data of same is as follow:

Table B.3.C.1.10.1 Growth data of New Candidate Plus Trees and Existing Plus Treesof *Tectona grandis* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/NR/TG/1	**21**	**14**	**0.99**	**4**	**6**	**10**	**10**	**10**
KP/NR/TG/2	**17**	**12**	**1.2**	**4**	**5**	**10**	**10**	**10**
KP/NR/TG/3	**18**	**14**	**1.3**	**3**	**3**	**10**	**10**	**10**
KP/NR/TG/4	**20**	**15**	**1.05**	**4**	**4**	**10**	**10**	**10**
KP/NR/TG/5	**19**	**15**	**1.13**	**6**	**6**	**10**	**10**	**10**
KP/NR/TG/6	**20**	**7**	**1.53**	**8**	**6**	**10**	**10**	**10**
KP/JD/TG/7	**21**	**16**	**1.55**	**4**	**6**	**10**	**10**	**10**
KP/JD/TG/8	**18**	**13**	**1.55**	**4**	**7**	**10**	**10**	**10**
KP/JD/TG/9	**20**	**3.5**	**1.44**	**7**	**14**	**10**	**10**	**10**
KP/JD/TG/10	**19**	**10**	**1.49**	**4**	**5**	**10**	**10**	**10**
KHUM/TG/1	27	3	1.9	5	11	10	7	10
KHUM/TG/2	28	2	1.9	5	13	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.52, IV.53 & IV.54) and finally the total weightage score was computed as ahead:

Table B.3.C.1.10.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Treesof *Tectona grandis* in Kalimpong Division

Tree No.	Total Weightage Score
KP/NR/TG/1	**86**
KP/NR/TG/2	**84.5**
KP/NR/TG/3	**86**
KP/NR/TG/4	**86**
KP/NR/TG/5	**84.75**
KP/NR/TG/6	**86.75**
KP/JD/TG/7	**92**
KP/JD/TG/8	**88.75**
KP/JD/TG/9	**83.25**
KP/JD/TG/10	**84.5**
KHUM/TG/1	86.5
KHUM/TG/2	91.25
Mean	**86.69**

** The bold texts are of New Selected Candidate Plus Trees*

All the trees are located in two locations i.e Khumani and New Nawara. 4 trees are located in Khumani location covering an area of less than 1 hectare (B.3.C.1.10.1). But all the 4 trees have low value than average and will be retained as candidate plus trees. KHUM/TG/1 and KHUM/TG/2 are more approximately 1 km away from the location. But both trees are very close to each other (B.3.C.1.10.2), hence KHUM/TG/2 will be retained as plus tree and KHUM/TG/1 will be marked as candidate plus tree. In New Newara location, all the 4 trees are within 1 hectare area (B.3.C.1.10.3), hence **KP/JD/TG/7** will be marked as plus tree. Remaining all will be retained as candidate plus trees.

Fig. B.3.C.1.10.1 Area and Location of Different Trees of *Tectona grandis* at Khumani Location in Kalimpong Division

Fig. B.3.C.1.10.2 Area and Location of Different Existing Trees of *Tectona grandis* at Khumani Location in Kalimpong Division

Fig. B.3.C.1.10.2 Area and Location of Different Existing Trees of *Tectona grandis* at New Newara Location in Kalimpong Division

B.3.C.1.11. *Terminalia myriocarpa*

12 trees were located in the division (7 selected candidate plus trees and 5 existing plus trees). Growth data of same is as follow:

Table 6.C.2.11.1 Growth data of New Candidate Plus Trees and Existing Plus Treesof *Terminalia myriocarpa* in Kalimpong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KP/NR/TM/1	**17**	**8**	**1.3**	**7**	**5**	**10**	**10**	**10**
KP/NR/TM/2	**15**	**10**	**1.35**	**7**	**8**	**10**	**10**	**10**
KP/NR/TM/3	**17**	**13**	**1.17**	**4**	**3**	**10**	**10**	**10**
KP/NR/TM/4	**19**	**12**	**1.25**	**6**	**5**	**10**	**10**	**10**
KP/NR/TM/5	**17**	**11**	**1.25**	**7**	**6**	**10**	**10**	**10**
KP/NR/TM/6	**14**	**9**	**1.4**	**8**	**7**	**10**	**10**	**10**
KP/NR/TM/7	**15**	**8**	**1.21**	**7**	**8**	**10**	**10**	**10**
DULAP/TM/1	17	11	3.2	13	14	10	10	10
DULAP/TM/2	20	2.5	4	16	15	10	7	10
DULAP/TM/4	18	5	3.5	18	15	10	10	10
MAL/TM/1	19	4	2	9	8	7	10	10
MAL/TM/14	18	10	2	7	6	10	7	10

** The bold texts are of New Selected Candidate Plus Trees*

After giving scores and weightage to each trait (Annexure-IV, Table IV.55, IV.56 & IV.57), total weightage scores are as follow:

Table B.3.C.1.11.2 Total Weightage Score of New Candidate Plus Trees and Existing Plus Treesof *Terminalia myriocarpa* in Kalimpong Division

Tree No.	Total Weightage Score
KP/NR/TM/1	**83.5**
KP/NR/TM/2	**82.75**
KP/NR/TM/3	**87**
KP/NR/TM/4	**90.25**
KP/NR/TM/5	**85.5**
KP/NR/TM/6	**82.75**
KP/NR/TM/7	**80.75**
DULAP/TM/1	92.75
DULAP/TM/2	87.5
DULAP/TM/4	90.5
MAL/TM/1	80.25
MAL/TM/14	84.5
Mean	**85.67**

** The bold texts are of New Selected Candidate Plus Trees*

All the trees are located within 1 hectare area in New Newara location (Fig. B.3.C.1.11.1), hence **KP/NR/TM/4** will be marked as plus tree and remaining will be retained as candidate plus trees except **KP/NR/TM/7** and MAL/TM/1 (both will be deleted from the list). At Dulapchand location all the 3 trees are distributed within 1 hectare area (Fig. B.3.C.1.11.2), hence only 1 tree will be retained as plus tree (DULAP/TM/1) and remaining 2 will be marked as candidate plus trees.

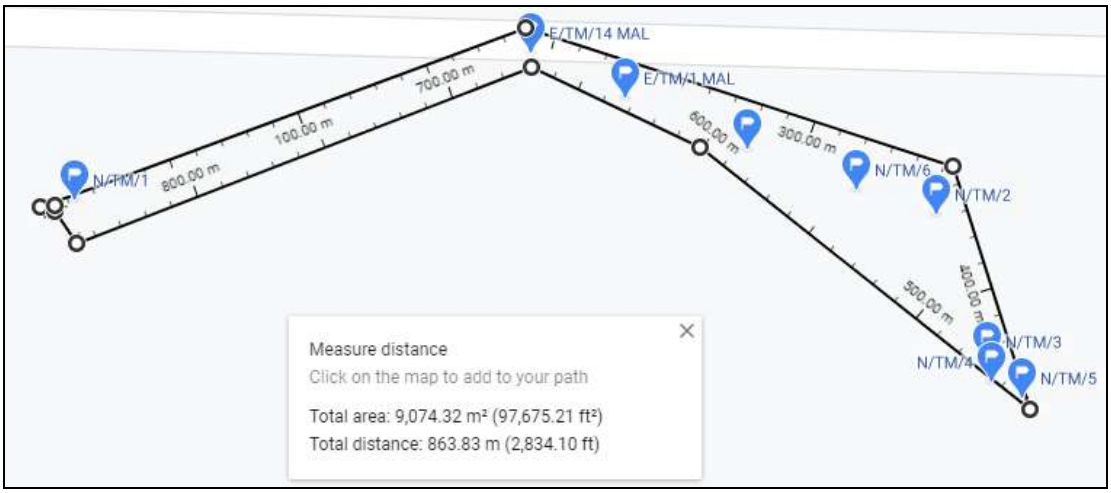


Fig. B.3.C.1.11.1 Area and Location of Different Trees of *Terminalia myriocarpa*at New Newara & Mal-7 Location in Kalimpong Division

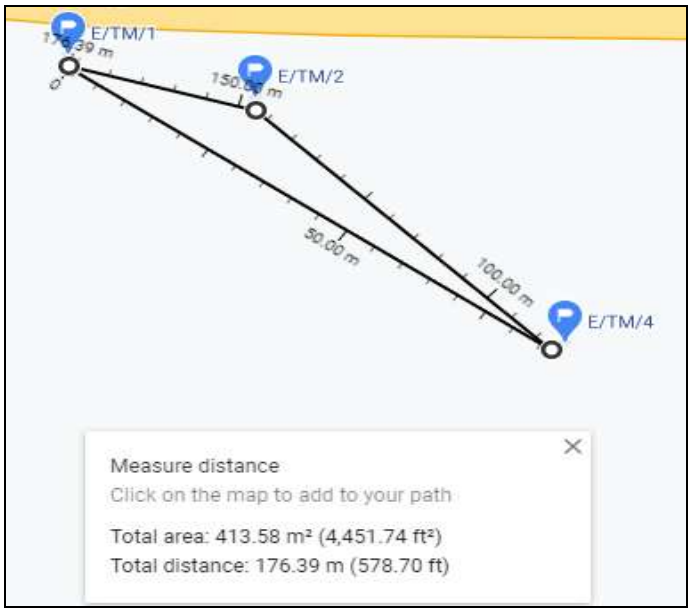


Fig. B.3.C.1.11.2 Area and Location of Different Trees of *Terminalia myriocarpa*at Dupalchand Location in Kalimpong Division

B.3.D Kurseong Division

41 new candidate plus trees of 9 species were selected in the division and 10 existing evaluated plus trees were also there. Growth data of same is as follow:

Table B.3.D.1 Abstract of New Candidate Plus Trees along with Existing Trees of Concerned Species in Kurseong Division

Sl No.	Species Name	New Trees selected	Existing trees	Total no. of Plant evaluated
1.	*Cinnamomum cecidodaphne*	**1**	**0**	**1**
2.	*Gmelina arborea*	**2**	**0**	**2**
3.	*Lagerstroemia flos reginae*	**2**	**0**	**2**
4.	*Michelia champaca*	**3**	**0**	**3**
5.	*Michelia excelsa*	**3**	**0**	**3**
6.	*Schima wallichii*	**11**	**2**	**13**
7.	*Shorea robusta*	**8**	**1**	**9**
8.	*Tectona grandis*	**4**	**4**	**8**
9.	*Terminalia myriocarpa*	**7**	**3**	**10**
	Total	**41**	**10**	**51**

B.3.D.1 Analysis of Data

For analysis purpose, minimum 7 candidate plus trees were taken into account of a particular species (new and existing ones), for the selection of plus trees. Where the trees are less, the same is retained as candidate plus trees.

B.3.D.1.1*Cinnamomum cecidodaphne*

1 new candidate plus tree was selected in the division, which was phenotypically good. Tree will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.D.1.1.1 Growth data of New Candidate Plus Trees of *Cinnamomum cecidodaphne* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/BR/CC/1	22	16	1.4	6	6	10	10	10

B.3.D.1.2 *Gmelina arborea*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.D.1.2.1 Growth data of New Candidate Plus Trees of *Gmelina arborea* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/SV/GA/1	14	6.5	2.85	7	6	10	10	10
KS/SV/GA/2	14	10	2	6	6	10	10	10

B.3.D.1.3 *Lagerstroemia flos reginae*

2 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.D.1.3.1 Growth data of New Candidate Plus Trees of *Lagerstroemia flos reginae in* Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/SV/LF/1	12	5.5	1	6	4	10	10	10
KS/SV/LF/2	13	9	1.45	6	7	10	10	10

B.3.D.1.4 *Michelia champaca*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.3.D.1.4.1 Growth data of New Candidate Plus Trees of *Michelia champaca* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/BP/MC/1	27	12	2.19	13	9	10	10	10
KS/BP/MC/2	30	22	2.13	13	8	10	10	10
KS/BP/MC/3	25	13	1.9	12	9	10	10	10

B.3.D.1.5*Michelia excelsa*

3 new candidate plus trees were selected in the division, which were phenotypically good. Trees will be retained as candidate plus trees. Growth data of same is as follow:

Table B.4.B.2.5.1 Growth data of New Candidate Plus Trees of *Michelia excelsa* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/BG/ME/1	24	8	0.85	6	9	10	10	10
KS/BG/ME/2	24	8	0.92	10	14	10	10	10
KS/BG/ME/3	22	9	0.9	5	16	10	10	10

B.3.D.1.6 *Schima wallichii*

In totality 13 trees were located in the division including 11 new candidate plus trees. The growth data of same is as follow:

Table B.3.D.1.6.1 Growth data of New Candidate Plus Trees & Existing Plus Trees of *Schima wallichii* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/BP/SW/1	**28**	**18**	**1.95**	**8**	**10**	**10**	**10**	**10**
KS/BP/SW/2	**30**	**23**	**2.38**	**13**	**11**	**10**	**10**	**10**
KS/BP/SW/3	**24**	**18**	**1.48**	**6**	**5**	**10**	**10**	**10**
KS/SV/SW/4	**21**	**14**	**1.55**	**5**	**8**	**10**	**10**	**10**
KS/SV/SW/5	**22**	**16**	**1.35**	**3**	**4**	**10**	**10**	**10**
KS/SV/SW/6	**21**	**15**	**1.6**	**6**	**7**	**10**	**10**	**10**
KS/SV/SW/7	**23**	**13**	**1.45**	**5**	**7**	**10**	**10**	**10**
KS/SV/SW/8	**18**	**11**	**1.5**	**6**	**8**	**10**	**10**	**10**
KS/SV/SW/9	**20**	**11**	**1.2**	**5**	**4**	**10**	**10**	**10**
KS/SV/SW/10	**22**	**16**	**1.65**	**5**	**6**	**10**	**10**	**10**
KS/SV/SW/11	**18**	**10**	**1.05**	**4**	**7**	**10**	**10**	**10**
UKUN/SW/4	27	3	2.1	9	7	10	10	10
UKUN/SW/5	29	6	3.85	20	12	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.58, IV.59 & IV.60) and finally the total weightage score was computed as ahead:

Table B.3.D.1.6.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Schima wallichii* in Kurseong Division

Tree No.	Total Weightage Score
KS/BP/SW/1	**91**
KS/BP/SW/2	**95.5**
KS/BP/SW/3	**85.25**
KS/SV/SW/4	**82**
KS/SV/SW/5	**81.5**
KS/SV/SW/6	**84**
KS/SV/SW/7	**83.5**
KS/SV/SW/8	**80.5**
KS/SV/SW/9	**80**
KS/SV/SW/10	**85.75**
KS/SV/SW/11	**78.5**
UKUN/SW/4	83.25
UKUN/SW/5	92
Mean	**84.83**

** The bold texts are of New Candidate Plus Trees*

At Bamonphokhari, all the trees are within 1 hectare area (Fig. B.3.D.1.6.1), hence only 1 tree will be marked as plus tree (**KS/BP/SW/2**) and remaining 2 will be retained as candidate plus trees. At upper kundong all the trees except **KS/SV/SW/10 and KS/SV/SW/11,** are located within 4 hectare area (Fig. B.3.D.1.6.2). **KS/SV/SW/10 and KS/SV/SW/11**are far away from the cluster as well as from each other (Fig. B.3.D.1.6.3). **KS/SV/SW/10** will be marked as plus tree (as the value is more than the average)**.** Remaining new candidate plus trees will be retained as candidate plus trees. The existing trees are distributed far from new trees as well as each other. Both will be retained as plus trees.

Fig. B.3.D.1.6.1 Area and Location of Different Trees of *Schima wallichii at* Bamonphokhariin Kurseong Division

Fig. B.3.D.1.6.2 Area and Location of Different Trees of *Schima wallichii at* Upper Kungdungin Kurseong Division

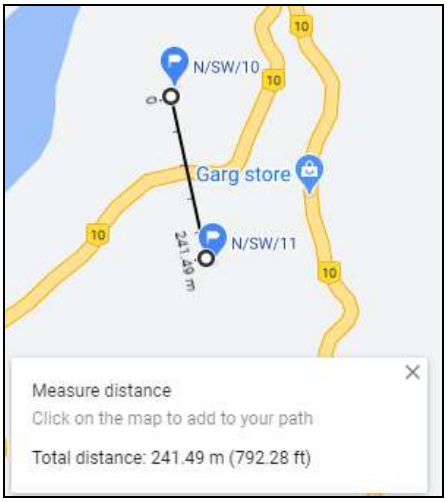


Fig. B.3.D.1.6.3 Area and Location of Different Two Trees of *Schima wallichii* at Upper Kungdungin Kurseong Division

B.3.D.1.7 *Shorea robusta*

8 new candidate plus trees and 1 existing plus trees were there in the division. The growth data is presented in the table below:

Table B.3.D.1.7.1 Growth data of New Candidate Plus Trees & Existing Plus Trees of *Shorea robusta* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/SV/SR/1	**24**	**19**	**1.55**	**6**	**7**	**10**	**10**	**10**
KS/SV/SR/2	**21**	**17**	**1.7**	**6**	**5**	**10**	**10**	**10**
KS/SV/SR/3	**22**	**18**	**1.9**	**6**	**5**	**10**	**10**	**10**
KS/SV/SR/4	**20**	**16**	**1.7**	**7**	**4**	**10**	**10**	**10**
KS/SV/SR/5	**21**	**17**	**1.8**	**6**	**6**	**10**	**10**	**10**
KS/SV/SR/6	**21**	**16**	**1.2**	**4**	**3**	**10**	**10**	**10**
KS/SV/SR/7	**22**	**16**	**1.25**	**6**	**4**	**10**	**10**	**10**
KS/SV/SR/8	**23**	**17**	**1.15**	**4**	**3**	**10**	**10**	**10**
BAMON/SR/2	32	22	3.1	18	8	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

After giving scores and weightage to each trait (Annexure-IV, Table IV.61, IV.62 & IV.63), the total weighted scores are as below:

Table B.3.D.1.7.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Shorea robusta* in Kurseong Division

Tree No.	Total Weightage Score
KS/SV/SR/1	82.25
KS/SV/SR/2	78.5
KS/SV/SR/3	80.5
KS/SV/SR/4	78.5
KS/SV/SR/5	78.5
KS/SV/SR/6	76.25
KS/SV/SR/7	76.25
KS/SV/SR/8	77.75
BAMON/SR/2	82.25
Mean	**78.97**

** The bold texts are of New Selected Candidate Plus Trees*

All the 9 new candidate plus trees are located over an area more than 9 hectare (Fig. B.3.D.1.7.1). **KS/SV/SR/1** and**KS/SV/SR/3** have the score more than average value and will be marked as plus trees and remaining will be retained as candidate plus trees.BAMON/SR/2 is in the different location, hence will be retained as plus tree.

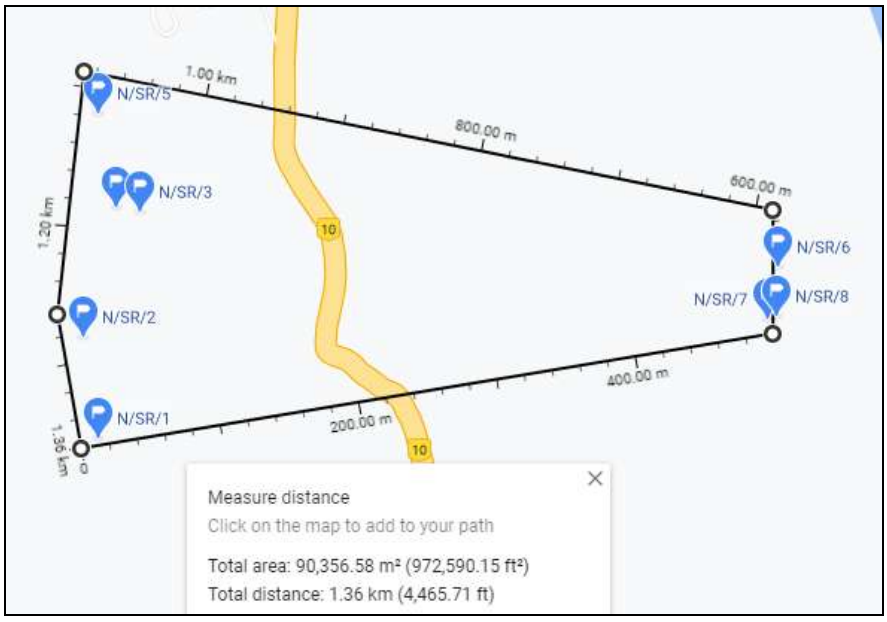


Fig. B.3.D.1.7.2 Area and Location of Different Trees of *Shorea robusta* in Kurseong Division

B.3.D.1.8 *Tectona grandis*

4 new candidate plus trees along with 4 existing evaluated plus trees were located in the division. Growth data of trees is presented in the table below:

Table B.3.D.1.8.1 Growth data of New Candidate Plus Trees & Existing Plus Trees of *Tectona grandis* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/PG/TG/1	22	17	1.75	10	8	10	10	10
KS/TJ/TG/2	30	20	1.1	10	7	10	10	10
KS/TJ/TG/3	20	16	0.85	7	6	10	10	10
KS/BR/TG/4	21	10	1.5	6	8	10	10	10
BAMON/TG/1	14	11	2.27	10	15	10	10	10
BAMON/TG/5	14	7	2.4	14	18	7	7	10
BAMON/TG/7	15	12	1.95	9	6	7	7	10
BAMON/TG/8	15	12	1.97	6	7	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.64, IV.65 & IV.66) and finally the total weightage score was computed as below:

Table B.3.D.1.8.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Tectona grandis* in Kurseong Division

Tree No.	Total Weightage Score
KS/PG/TG/1	**89.5**
KS/TJ/TG/2	**90.5**
KS/TJ/TG/3	**83.5**
KS/BR/TG/4	**85**
BAMON/TG/1	87.25
BAMON/TG/5	77
BAMON/TG/7	75.25
BAMON/TG/8	84
Mean	**84**

** The bold texts are of New Selected Candidate Plus Trees*

KS/TJ/TG/2 and**KS/TJ/TG/3** were located in Tukriajhar and had the distance of more than 200 meter (Fig. B.3.D.1.8.1).**KS/PG/TG/1** and**KS/BR/TG/4** were in the

different locations. **KS/PG/TG/1, KS/TJ/TG/2** and**KS/BR/TG/4** will be marked as plus trees as having value more than the average. **KS/TJ/TG/3** will be retained as candidate plus tree. At Bamonpokhari, all the trees are distributed over a large area (Fig. B.3.D.1.8.2), hence all the existing trees will be retained as plus trees.

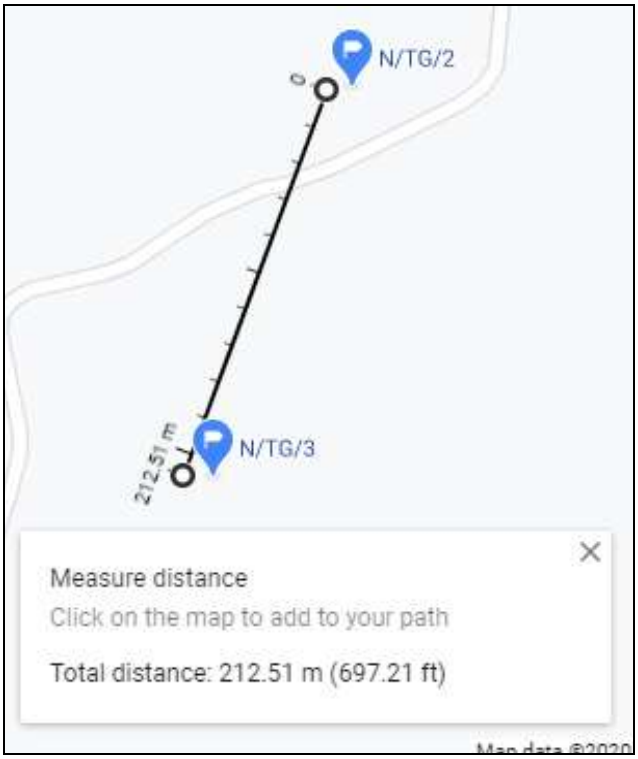


Fig. B.3.D.1.8.1 Area and Location of Different Trees of *Shorea robusta* at Tukriajhar in Kurseong Division

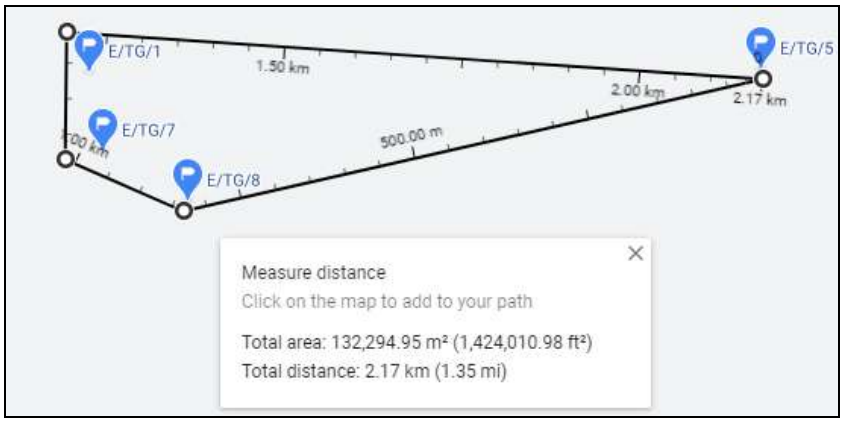


Fig. B.3.D.1.8.2 Area and Location of Different Trees of *Shorea robusta* at Bamonpokhari in Kurseong Division

B.3.D.1.9 *Terminalia myriocarpa*

In totality 10 trees were located in the division after selection of 7 new candidate plus trees. Growth data of same is as below:

Table B.3.D.1.9.1 Growth data of New Candidate Plus Trees & Existing Plus Trees of *Terminalia myriocarpa* in Kurseong Division

Tree No.	Quantitative Traits					Qualitative Traits		
	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
KS/SV/TM/1	**21**	**15**	**1.7**	**9**	**10**	**10**	**10**	**10**
KS/SV/TM/2	**23**	**12**	**1.85**	**9**	**8**	**10**	**10**	**10**
KS/SV/TM/3	**22**	**13**	**1.6**	**9**	**6**	**10**	**10**	**10**
KS/SV/TM/4	**20**	**11**	**1.45**	**11**	**10**	**10**	**10**	**10**
KS/SV/TM/5	**19**	**10**	**1.7**	**7**	**8**	**10**	**10**	**10**
KS/SV/TM/6	**20**	**14**	**1.75**	**9**	**7**	**10**	**10**	**10**
KS/SV/TM/7	**19**	**12**	**1.6**	**8**	**6**	**10**	**10**	**10**
KUND/TM/8	20	16	2.5	10	7	10	10	10
KUND/TM/9	21	16	2.2	9	7	10	10	10
KUND/TM/10	22	14	2	9	8	10	10	10

** The bold texts are of New Selected Candidate Plus Trees*

Then for comparison purpose, the quantitative and qualitative characters were computed to one scale by giving scores out of 10 for each trait. On the basis of commercial use of the species i.e. timber purpose, weightage was given for each trait (Annexure-IV, Table IV.67, IV.68 & IV.69) and finally the total weightage score was computed as below:

Table B.3.D.1.9.2 Total Weightage Score of New Candidate Plus Trees & Existing Plus Trees of *Terminalia myriocarpa* in Kurseong Division

Tree No.	Total Weightage Score
KS/SV/TM/1	**90.5**
KS/SV/TM/2	**87**
KS/SV/TM/3	**85**
KS/SV/TM/4	**79.5**
KS/SV/TM/5	**78.5**
KS/SV/TM/6	**86.25**
KS/SV/TM/7	**78.25**
KUND/TM/8	96
KUND/TM/9	90.5
KUND/TM/10	87
Mean	**85.85**

** The bold texts are of New Selected Candidate Plus Trees*

4 new candidate plus tree and 2 existing plus trees were located over 4 hectare area (Fig.B.3.D.1.9.1).KUND/TM/8 is more than 1 kilometer away from them. **KS/SV/TM/1, KS/SV/TM/2,** KUND/TM/8, KUND/TM/9 and KUND/TM/10 will be marked/retained as

plus trees. **KS/SV/TM/5** and**KS/SV/TM/6** are more than 1 kilometer away from the cluster, and both are far from each other too (Fig. B.3.D.1.9.2).**KS/SV/TM/7** is in other location.**KS/SV/TM/6** will be marked as plus tree. Remaining all the trees will be retained as candidate plus trees.

Fig. B.3.D.1.9.1 Area and Location of Different Trees of *Terminalia myriocarpa* at Upper Kungdong in Kurseong Division

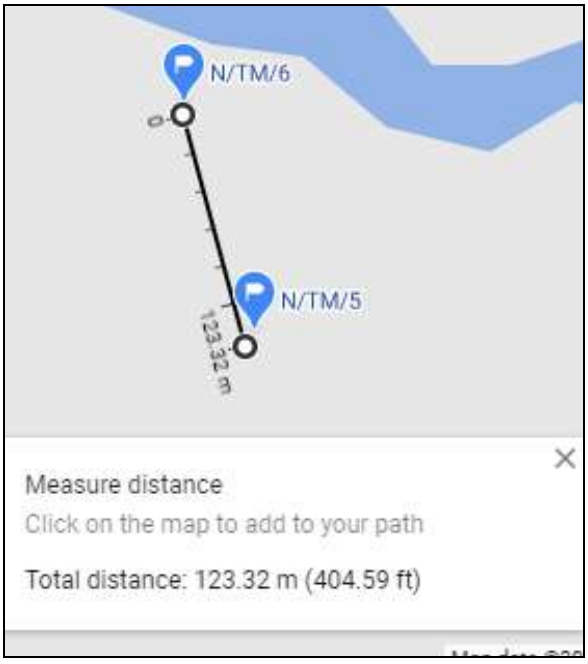


Fig. B.3.D.1.9.2 Area and Location of Different Two Trees of *Terminalia myriocarpa* at Upper Kungdong in Kurseong Division

GLIMPSE OF NEW SELECTED CANDIDATE PLUS TREES IN WEST BENGAL

Bombax ceiba at Ranibandh

Terminalia chebula at Ranibandh

Diospyros melanoxylon at Jhilimili

Terminalia alata at Khatra

Holoptelea Integrifolia at Ijjatganj

Shorea robusta at Garado

Pterocarpus marsupium at Enthela

Shorea robusta at Garado

Eucalyptushybrid at Kenda

Ailanthus grandis at N Gorumara

Michelia champaca at Aplachand

Bombax ceiba at Kenda

Holoptelea Integrifolia at Ijjatganj

Shorea robusta at Garado

Pterocarpus marsupium at Enthela

Shorea robusta at Garado

Shorea robusta at N Gorumara

Schima wallichii at Chalsa

Gmelina arborea at Aplachand

Shorea robusta at Chalsa

CHAPTER – 4

CONCLUSON

After evaluation of existing plus trees and candidate plus trees and selection of new candidate plus trees and/or plus trees, 538 plus trees along with 1071 candidate plus trees of different species will be retained and/or marked in West Bengal. All the trees have been renamed again, so as to minimize the duplicity in tree number in a particular division.

1. Silviculture North Circle

In the silviculture north circle, 205 plus trees along with 231 candidate plus trees of 37 species has been screened and selected as plus trees and/or candidate plus trees in 7 different divisions. Division wise details of screened plus trees and candidature plus trees along with their location details are as follow:

I.A Bainkuthpur Division

After screening, 2 plus trees and 4 candidate plus trees of one species have been retained and/or marked in Bainkuthpur division (Table 1.A.1). Location details have been presented in table 1.A.2 and 1.A.3.

Table. 1.A.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Buxa Tiger Reserve (BTR) Division

Sl No.	Name of the species	No. of Plus tree	No. of Candidate Plus trees
1.	*Michelia champaca*	02	04
	Total	**02**	**04**

1.A.2 Location Details of Screened Plus Trees in Bainkuthpur Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Michelia champaca	02	ODAL-MC-1	BP/TRG/MC/1(P)	Targhera	Gajoldoba	Odalbari	26.805633	88.600550
		APAL-MC-13	BP/APL/MC/2(P)	Apalchand	Apalchand	Apalchand	26.775583	88.633367

Table 1.A.3 Location Details of Screened Candidate Plus Trees in Bainkuthpur Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Michelia champaca	04	ODAL-MC-2	BP/TRG/MC/1	Targhera	Gajoldoba	Odalbari	26. 806083	88.600650
		ODAL-MC-3	BP/TRG/MC/2	Targhera	Gajoldoba	Odalbari	26.805283	88.601300
		ODAL-MC-4	BP/TRG/MC/3	Targhera	Gajoldoba	Odalbari	26.804700	88.601633
		ODAL-MC-14	BP/TRG/MC/4	Targhera	Gajoldoba	Odalbari	26.805583	88.601600

1.B Buxa Tiger Reserve (BTR) Division

After screening, 39 plus trees and 82 candidate plus trees of 22 species have been retained and/or marked in Buxa Tiger Reserve (BTR) division (Table 1.B.1). Location details have been presented in table 1.B.2 and 1.B.3.

Table. 1.B.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Buxa Tiger Reserve (BTR) Division

Sl No.	Name of the species	No. of Plus tree	No. of Candidate Plus trees
1.	*Acrocarpus fraxinifolius*	0	01
2.	*Ailanthus grandis*	01	03
3.	*Amoora wallichii*	0	04
4.	*Anthocephalus chinensis*	03	06
5.	*Bischofia javanica*	00	01
6.	*Bpmbax ceiba*	03	05
7.	*Canarium sikkimensis*	00	03
8.	*Dipterocarpus macrocarpus*	02	02
9.	*Duabanga sonneratioides*	01	06
10.	*Lagerstroemia hypoluca*	01	03
11.	*Lagerstroemia parviflora*	02	02
12.	*Michelia Champaca*	09	04
13.	*Sapindus detergens*	00	04
14.	*Schima wallichii*	09	09
15.	*Terminalia arjuna*	00	05
16.	*Terminalia bellirica*	03	01
17.	*Terminalia chebula*	00	06
18.	*Terminalia myriocarpa*	03	04
19.	*Terminalia tomentosa*	00	04
20.	*Tectona grandis*	02	06
21.	*Toona ciliata*	00	02
22.	*Zanthoxylum armatum*	0	01
	Total	**39**	**82**

Table 1.B.2 Location Details of Screened Plus Trees in BTR West Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Ailanthus grandis	01	SRAJ/AG/15	BTR/WR/AG/1(P)	WRVK	WRVK	SRVK -18	26.618750	89.534690
Anthocephalus cinensis	03	SRAJ/AC/14	BTR/WR/AC/1(P)	WRVK	WRVK	SRVK 10	26.6193	89.5373
		SRAJ/AC/21	BTR/WR/AC/3(P)	WRVK	WRVK	SRVK 10	26.62255	89.53414
		SRAJ/AC/23	BTR/WR/AC/4(P)	WRVK	WRVK	SRVK 10	26.62135	89.53392
Bombax ceiba	03	CHECKO/BC/26	BTR/WR/BC/ 1(P)	DPO(E)	CHECKO	CHECKO-6	26.58658	89.55131
		SRAJ/BC/30	BTR/WR/BC/ 2(P)	WRVK	WRVK	SRVK 9	26.62515	89.54021
		SRAJ/BC/31	BTR/WR/BC/ 3(P)	WRVK	WRVK	SRVK 9	26.62995	89.51661
Dipterocarpus macrocarpus	02	DAMAN/DM/5	BTR/DPO/DM/1(P)	DPO (E)	DPO (E)	DPO 3	26.993433	89.878150
		DAMAN/DM/9	BTR/DPO/DM/2(P)	DPO (E)	DPO (E)	DPO 3	26.993233	89.876367
Duabanga sonneratioides	01	SRAJ/DS/4	BTR/WR/DS/1(P)	WRVK	WRVK	SRVK-10	26.622630	89.534080
Lagerstroemia hypoluca	01	SRAJ/LH/27	BTR/WR/LH/1(P)	WRVK	WRVK	SRVK	26.61896	89.54645
Lagerstroemia parviflora	02	SRAJ/LP/8	BTR/WR/LP/1(P)	WRVK	WRVK	SRVK 7 &10	26.62801	89.53399
		SRAJ/LP/10	BTR/WR/LP/2(P)	WRVK	WRVK	SRVK 7 &10	26.64721	89.53736
Michelia Champaca	09	GADA/MC/29	BTR/DPO/MC/1(P)	DPO (E)	Gadadhar	Gadadhar -6	26.584090	89.607720
		GADA/MC/31	BTR/ DPO/MC/2(P)	DPO (E)	Gadadhar	Gadadhar -6	26.584460	89.609270
		GADA/MC/32	BTR/ DPO/MC/3(P)	DPO (E)	Gadadhar	Gadadhar -6	26.584680	89.609130
		GADA/MC/33	BTR/ DPO/MC/4(P)	DPO (E)	Gadadhar	Gadadhar -6	26.584760	89.608750
		GADA/MC/34	BTR/ DPO/MC/5(P)	DPO (E)	Gadadhar	Gadadhar -6	26.584800	89.608120
		GADA/MC/35	BTR/ DPO/MC/6(P)	DPO (E)	Gadadhar	Gadadhar -6	26.585630	89.609040
		GADA/MC/38	BTR/ DPO/MC/7(P)	DPO (E)	Gadadhar	Gadadhar -6	26.586210	89.610040
		CHECKO/MC/25	BTR/ WR/MC/5(P)	WRVK	WRVK	CHECKO 6	26.56943	89.5691
		CHECKO/MC/26	BTR/ WRMC/6(P)	WRVK	WRVK	CHECKO 6	26.56443	89.56911
Schima wallichii	09	SRAJ/AW/18	BTR/ WR/SW/1(P)	**WRVK**	**WRVK**	**SRVK 7**	26.64694	89.54197
		SRAJ/AW/21	BTR/ WR/SW/2(P)	**WRVK**	**WRVK**	**SRVK 7**	26.64527	89.54201
		SRAJ/AW/38	BTR/WR/SW/3(P)	**WRVK**	**WRVK**	**SRVK 8**	26.64094	89.528352
		CHEC/SW/24	BTR/DPO/SW/9(P)	**DPO(E)**	**CHECKO**	**CHECKO 6**	26.56264	89.55277
		CHEC/SW/25	BTR/DPO/SW/10(P)	**DPO(E)**	**CHECKO**	**CHECKO 6**	26.5616	89.55477
		CHEC/SW/26	BTR/DPO/SW/11(P)	**DPO(E)**	**CHECKO**	**CHECKO 6**	26.56157	89.5552
		CHEC/SW/27	BTR/DPO/SW/12(P)	**DPO(E)**	**CHECKO**	**CHECKO 6**	26.56088	89.55435
		CHEC/SW/28	BTR/DPO/SW/13(P)	**DPO(E)**	**CHECKO**	**CHECKO 6**	26.56026	89.55354
		CHEC/SW/29	BTR/DPO/SW/14(P)	**DPO€**	**CHECKO**	**CHECKO 6**	26.56074	89.55383
Tectona grandis	02	SRAJ/TG/71	BTR/CHE/TG/1(P)	WRVK	CHECKO	SRVK 8	26.64454	89.52712
		SRAJ/TG/72	BTR/CHE/TG/2(P)	WRVK	CHECKO	SRVK 8	26.64487	89.52721
Terminalia bellirica	03	SRAJ/TB/11	BTR/WR/TB/1(P)	WRVK	WRVK	SRVK 10	26.6289	89.53325

		SRAJ/TB/12	BTR/WR/TB/2(P)	WRVK	WRVK	SRVK 10	26.62792	89.53251
		SRAJ/TB/13	BTR/WR/TB/3(P)	WRVK	WRVK	SRVK 10	26.62677	89.53403
Terminalia myriocarpa	03	SRAJ/TM/25	BTR/WR/TM/1(P)	WRVK	WRVK	SRVK-8	26.644512	89.529730
		SRAJ/TM/20	BTR/WR/TM/2(P)	WRVK	WRVK	SRVK 10	26.64481	89.53073
		SRAJ/TM/23	BTR/WR/TM/3(P)	WRVK	WRVK	SRVK 10	26.64578	89.53061

Table 1.B.3 Location Details of Screened Candidate Plus Trees in BTR West Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acrocarpus fraxinifolius	01	SRAJ/AF/2	BTR/WR/AF/1	WRVK	WRVK	SRVK 9	26.63979	89.53344
Ailanthus grandis	03	SRAJ/AG/13	BTR/WR/AG/1	WRVK	WRVK	SRVK -16	26.618910	89.533410
		SRAJ/AG/14	BTR/WR/ AG/2	WRVK	WRVK	SRVK -17	26.618830	89.533920
		SRAJ/AG/16	BTR/WR/ AG/3	WRVK	WRVK	SRVK -19	26.618890	89.534530
Amora wallichi	04	SRAJ/AW/1	BTR/WR/AW/1	WRVK	WRVK	SRVK 9	26.61627	89.53489
		SRAJ/AW/2	BTR/WR/AW/2	WRVK	WRVK	SRVK 9	26.61318	89.53478
		SRAJ/AW/3	BTR/WR/AW/3	WRVK	WRVK	SRVK 9	26.6138	89.53519
		SRAJ/AW/4	BTR/WR/AW/4	WRVK	WRVK	SRVK 9	26.61374	89.5357
Anthocephalus cinensis	06	SRAJ/AC/13	BTR/WR/AC/1	WRVK	WRVK	SRVK 10	26.61941	89.5364
		SRAJ/AC/15	BTR/WR/AC/2	WRVK	WRVK	SRVK 10	26.62029	89.53531
		SRAJ/AC/16	BTR/WR/AC/2	WRVK	WRVK	SRVK 10	26.62298	89.53451
		SRAJ/AC/17	BTR/WR/AC/3	WRVK	WRVK	SRVK 10	26.62223	89.53355
		SRAJ/AC/18	BTR/WR/AC/4	WRVK	WRVK	SRVK 10	26.6221	89.53255
		SRAJ/AC/20	BTR/WR/AC/5	WRVK	WRVK	SRVK 10	26.62249	89.53403
Bischofia javanica	01	SRAJ/BJ/1	BTR/WR/BJ/1	WRVK	WRVK	SRVK – 10	26.618817	89.543983
Bombax ceiba	05	CHECKO/BC/24	BTR/WR/BC/ 1	DPO€	CHECKO	CHECKO-6	26.5862	89.55106
		CHECKO/BC/25	BTR/WR/BC/2	DPO€	CHECKO	CHECKO-6	26.58676	89.55111
		CHECKO/BC/27	BTR/WR/BC/3	DPO€	CHECKO	CHECKO-6	26.58638	89.55134
		CHECKO/BC/28	BTR/WR/BC/4	DPO€	CHECKO	CHECKO-6	26.58641	89.55164
		SRAJ/BC/29	BTR/WR/BC/5	WRVK	WRVK	SRVK 9	26.62583	89.51973
Canarium sikkimensis	03	SRAJ/CS/2	BTR/WR/CS/2	WRVK	WRVK	SRVK – 9	26.633680	89.520880
		SRAJ/CS/5	BTR/WR/ CS/3	WRVK	WRVK	SRVK – 10	26.624990	89.532870
		SRAJ/CS/6	BTR/WR/ CS/4	WRVK	WRVK	SRVK – 10	26.625010	89.532840
Dipterocarpus macrocarpus	02	DAMAN/DM/6	BTR/ DPO/DM/1	DPO €	DPO €	DPO 3	26.595990	89.526820
		DAMAN/DM/8	BTR/ DPO/DM/2	DPO €	DPO €	DPO 3	26.595950	89.526220
Duabanga sonneratioides	06	SRAJ/DS/2	BTR/WR/DS/1	WRVK	WRVK	SRVK-10	26.622610	89.534420
		SRAJ/DS/3	BTR/WR/DS/2	WRVK	WRVK	SRVK-10	26.622630	89.534090

		SRAJ/DS/5	BTR/WR/DS/3	WRVK	WRVK	SRVK-10	26.622600	89.533920
		SRAJ/DS/6	BTR/WR/DS/4	WRVK	WRVK	SRVK-10	26.622610	89.533840
		SRAJ/DS/7	BTR/WR/DS/2	WRVK	WRVK	SRVK-10	26.62182	89.53182
		SRAJ/DS/8	BTR/WR/DS/5	WRVK	WRVK	SRVK-10	26.623430	89.534750
Lagerstroemia hypoluca	03	SRAJ/LH/28	BTR/WR/LH/1	WRVK	WRVK	SRVK	26.61898	89.54638
		SRAJ/LH/29	BTR/WR/LH/2	WRVK	WRVK	SRVK	26.61916	89.54639
		SRAJ/LH/30	BTR/WR/LH/2	WRVK	WRVK	SRVK	26.61929	89.54641
Lagerstroemia parviflora	02	SRAJ/LP/9	BTR/WR/LP/1	WRVK	WRVK	SRVK 7 &10	26.6301	89.53481
		SRAJ/LP/11	BTR/WR/LP/2	WRVK	WRVK	SRVK 7 &10	26.64725	89.53767
Michelia Champaca	06	GADA/MC/30	BTR/ DPO/MC/1	DPO €	Gadadhar	Gadadhar -6	26.584050	89.608970
		GADA/MC/37	BTR/ DPO/MC/2	DPO €	Gadadhar	Gadadhar -6	26.586080	89.609870
		CHECKO/MC/27	BTR/ DPO/MC/11	**WRVK**	**WRVK**	**CHECKO 6**	26.56971	89.56947
		CHECKO/MC/28	BTR/ DPO/MC/12	**WRVK**	**WRVK**	**CHECKO 6**	26.56937	89.56963
Sapindus detergens	04	SRAJ/SD/3	BTR/WR/SD/1	WRVK	WRVK	SRVK – 10	26.625310	89.534460
		SRAJ/SD/4	BTR/WR/ SD/2	WRVK	WRVK	SRVK – 8	26.647683	89.528617
		SRAJ/SD/5	BTR/WR/ SD/3	WRVK	WRVK	SRVK – 8	26.647633	89.528717
		SRAJ/SD/6	BTR/WR/ SD/4	WRVK	WRVK	SRVK – 8	26.648010	89.528890
Schima wallichii	09	SRAJ/AW/19	BTR/WR/ SW/1	WRVK	WRVK	SRVK 7	26.64614	89.54155
		SRAJ/AW/20	BTR/WR/ SW/2	WRVK	WRVK	SRVK 7	26.64572	89.54157
		SRAJ/AW/22	BTR/WR/ SW/3	WRVK	WRVK	SRVK 7	26.64693	89.54207
		SRAJ/AW/23	BTR/WR/ SW/4	WRVK	WRVK	SRVK 7	26.64697	89.54189
		SRAJ/AW/31	BTR/DPO/SW/4(P)	**DPO(E)**	**DPO**	**DPO 4**	26.58632	89.52576
		SRAJ/AW/32	BTR/DPO/SW/5(P)	**DPO(E)**	**DPO**	**DPO 4**	26.5864	89.52978
		SRAJ/AW/33	BTR/DPO/SW/6(P)	**DPO(E)**	**DPO**	**DPO 4**	26.58637	89.52995
		SRAJ/AW/34	BTR/DPO/SW/7(P)	**DPO(E)**	**DPO**	**DPO 4**	26.58553	89.52003
		SRAJ/AW/35	BTR/DPO/SW/8(P)	**DPO(E)**	**DPO**	**DPO 4**	26.58544	89.53017
Tectona grandis	06	SRAJ/TG/69	BTR/WR/TG/1	WRVK	CHECKO	SRVK 8	26.64382	89.52708
		SRAJ/TG/73	BTR/WR/TG/2	WRVK	CHECKO	SRVK 8	26.64512	89.52762
		SRAJ/TG/74	BTR/WR/TG/3	WRVK	CHECKO	SRVK 8	26.64485	89.52735
		SRAJ/TG/75	BTR/WR/TG/4	WRVK	CHECKO	SRVK 8	26.64475	89.52891
		SRAJ/TG/76	BTR/WR/TG/5	WRVK	CHECKO	SRVK 8	26.64445	89.52771
		SRAJ/TG/77	BTR/WR/TG/6	WRVK	CHECKO	SRVK 8	26.64353	89.52767
Terminalia arjuna	05	SRAJ/TA/1	BTR/WR/TA/1	WRVK	WRVK	SRVK - 9	26.631260	89.521150
		SRAJ/TA/2	BTR/WR/TA/2	WRVK	WRVK	SRVK 9	26.6312	89.52085
		SRAJ/TA/3	BTR/WR/TA/3	WRVK	WRVK	SRVK 9	26.63125	89.52103
		SRAJ/TA/4	BTR/WR/TA/4	WRVK	WRVK	SRVK 9	26.63116	89.52112
		SRAJ/TA/5	BTR/WR/TA/5	WRVK	WRVK	SRVK 9	26.63147	89.52133
Terminalia bellirica	01	SRAJ/TB/2	BTR/WR/TB/1	WRVK	WRVK	SRVK - 8	26.647233	89.537083

Terminalia chebula	06	SRAJ/TC/2	BTR/WR/ TC/1	WRVK	WRVK	SRVK 9	26.63769	89.53373
		SRAJ/TC/3	BTR/WR/ TC/2	WRVK	WRVK	SRVK 9	26.62288	89.54034
		SRAJ/TC/4	BTR/WR/ TC/3	WRVK	WRVK	SRVK - 15	26.618695	89.542350
		SRAJ/TC/5	BTR/WR/ TC/4	WRVK	WRVK	SRVK 9	26.61875	89.54231
		SRAJ/TC/7	BTR/WR/ TC/5	WRVK	WRVK	SRVK - 8	26.647867	89.529050
		SRAJ/TC/8	BTR/WR/ TC/6	WRVK	WRVK	SRVK - 8	26.647567	89.528833
Terminalia myriocarpa	04	SRAJ/TM/18	BTR/WR/TM/1	WRVK	WRVK	SRVK-8	26.386220	89.318440
		SRAJ/TM/24	BTR/WR/TM/2	WRVK	WRVK	SRVK-8	26.386640	89.317900
		SRAJ/TM/26	BTR/WR/TM/3	WRVK	WRVK	SRVK-8	26.644300	89.529950
		SRAJ/TM/27	BTR/WR/TM/4	WRVK	WRVK	SRVK-8	26.644010	89.530340
Terminalia tomentosa	04	SRAJ/TT/1	BTR/WR/TT/1	WRVK	WRVK	SRVK - 1	26.647740	89.532860
		SRAJ/TT/2	BTR/WR/TT/2	WRVK	WRVK	SRVK - 1	26.648700	89.533230
		SRAJ/TT/4	BTR/WR/TT/3	WRVK	WRVK	SRVK - 1	26.649620	89.533850
		SRAJ/TT/5	BTR/WR/TT/4	WRVK	WRVK	SRVK - 1	26.649950	89.531840
Toona ciliata	02	CHEC/TC/5	BTR/WR/TC/1	EDPO	Checko	SRVK - 8	26.647250	89.527867
		CHEC/TC/2	BTR/WR/TC/2	EDPO	Checko	SRVK - 8	26.647252	89.527600
Zanthoxylum armatum	01	SRAJ/ZB/1	BTR/WR/ZA/1	WRVK	WRVK	SRVK 9	26.61569	89.53418

1.C Cooch Bihar Division

In Cooch Bihar Division, in totality 12 trees have been screened as plus trees(5) and candidate plus trees (7) as per the (Table 1.C.1) along with their geo-referenced co-ordinates (Table 1.C.2 & 1.C.3).

Table. 1.C.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Cooch Bihar (COB) Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Bombax ceiba*	03	01
2.	*Gmelina arborea*	02	04
3.	*Terminalia arjuna*	0	02
	Total	**05**	**07**

Table 1.C.2 Location Details of Screened Plus Trees Cooch Bihar (COB) Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Bombax ceiba	03	ATIA/BC/17	CB/COB/BC/1(P)	COB(T)	Atiamochar	Atiamochar	26.443880	89.737500
		ATIA/BC/18	CB/COB/BC/2(P)	COB(T)	Atiamochar	Atiamochar	26.441960	89.736500
		ATIA/BC/20	CB/COB/BC/3(P)	COB(T)	Atiamochar	Atiamochar	26.44305	89.73850
Gmelina arborea	02	ATIA/GA/34	CB/COB/GA/1(P)	COB(T)	Atiamochar	Atiamochar	26.435730	89.746290
		ATIA/GA/35	CB/COB/GA/2(P)	COB(T)	Atiamochar	Atiamochar	26.435930	89.746480

Table 1.C.3 Location Details of Screened Candidate Plus Trees in Cooch Bihar (COB) Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Bombax ceiba	01	ATIA/BC/19	CB/COB/BC/1	COB(T)	Atiamochar	Atiamochar	26.44191	89.73746
Gmelina arborea	04	ATIA/GA/32	CB/COB/GA/1	COB(T)	Atiamochar	Atiamochar	26.435670	89.746120
		ATIA/GA/33	CB/COB/GA/2	COB(T)	Atiamochar	Atiamochar	26.435770	89^{0}74.6220
		ATIA/GA/37	CB/COB/GA/3	COB(T)	Atiamochar	Atiamochar	26.435540	89^{0}74.8330
		ATIA/GA/46	CB/COB/GA/4	COB(T)	Atiamochar	Atiamochar	26.435720	89^{0}74.7900
Terminalia arjuna	02	CENT/TA/6	CB/COB/TA/1	Coochbihar	Changtimari	Changtimari	26.41355	89.7147
		CENT/TA/7	CB/COB/TA/2	Coochbihar	Changtimari	Changtimari	26.41859	89.71828

1.D Jalpaiguri division

87 plus trees and 85 candidate plus trees of 27 species have been retained and/or marked in the Jalpaiguri division (Table 1.D.1). Geo-referenced co-ordinates of plus trees and candidate plus trees is presented in Table 1.D.2 & 1.D.3 respectively.

Table. 1.D.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Jalpaiguri Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia catechu*	01	00
2.	*Ailanthus grandis*	01	00
3.	*Albizia procera*	01	02
4.	*Amoora wallichii*	05	00
5.	*Anthocephalus cadamba*	00	03
6.	*Bombax ceiba*	03	04
7.	*Canarium sikkimensis*	01	00
8.	*Chukrasia tabularis*	09	04
9.	*Cinnamomum cecidodaphne*	01	03
10.	*Dalbergia sissoo*	01	02
11.	*Dipterocarpus macrocarpus*	00	01
12.	*Dipterocarpus turbinatus*	01	05
13.	*Gmelina arborea*	06	11
14.	*Lagerstroemia flos reginae*	11	06
15.	*Lagerstroemia parviflora*	01	02
16.	*Laphopetalum fimbriatum*	0	01
17.	*Machilus villosa*	00	01
18.	*Michelia champaca*	04	07
19.	*Pterocarpus marsupium*	01	02
20.	*Schima wallichii*	13	09
21.	*Shorea robusta*	06	03
22.	*Sterculia villosa*	02	02
23.	*Swietenia mahogany*	02	00
24.	*Tectona grandis*	13	12
25.	*Terminalia bellirica*	01	04
26.	*Terminalia tomentosa*	02	01
27.	*Toona ciliata*	01	00
	Total	**87**	**85**

Table 1.D.2 Location Details of Screened Plus Trees in Jalpaiguri Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia catechu	01	DIANA/AC/3	JPG/DN/AC/1(P)	Diana	Karon	C- Diana	26.862450	88.999167
Ailanthus grandis	01	CMOR/AG/8	JPG/MOR/AG/1(P)	Moraghat	Khutimari	CMG-7	26.722617	88.974133
Albizia procera	01	SURS/AP/4	JPG/LT/AP/1(P)	Lataguri	Barodighi	Sursuti/2	26.762600	88.776550
Amoora wallichii	05	CENT/AW/5	JPG/LT/AW/1(P)	Lataguri	Central	Central/3	26.729867	88.784733
		CENT/AW/6	JPG/LT/AW/2(P)	Lataguri	Central	Central/3	26.730117	88.784500
		BICHA/AW/1	JPG/LT/AW/3(P)	Lataguri	Bichabhan	Bichabhanga	26.717533	88.775517
		BICHA/AW/2	JPG/LT/AW/4(P)	Lataguri	Bichabhan	Bichabhanga	26.726833	88.779333
		BICHA/AW/3	JPG/LT/AW/5(P)	Lataguri	Bichabhan	Bichabhanga	26.726853	88.780233
Bombax ceiba	03	RETI/ BC/3	JPG/BH/BC/1(P)	Banarhat	Reti	Reti - 1	26.796050	89.093917
		RETI/ BC/5	JPG/BH/BC/2(P)	Banarhat	Reti	Reti - 1	26.794167	89.093933
		DIANA/BC/12	JPG/DN/BC/3(P)	Diana	Sulkapara	C-Diana	26.866283	88.996433
Canarium sikkimensis	01	SMOR/CS/1	JPG/MOR/CS/1(P)	Moraghat	Khutimari	SMG-7	26.722417	88.974500
Chukrasia tabularis	09	SURS/CT/18	JPG/LT/CT/1(P)	Lataguri	Barodighi	Sursuti/2,4	26.784750	88.784283
		SURS/CT/19	JPG/LT/CT/2(P)	Lataguri	Barodighi	Sursuti/2,4	26.784783	88.784717
		SURS/CT/20	JPG/LT/CT/3(P)	Lataguri	Barodighi	Sursuti/2,4	26.772450	88.792383
		SURS/CT/21	JPG/LT/CT/4(P)	Lataguri	Barodighi	Sursuti/2,4	26.772533	88.792167
		SURS/CT/22	JPG/LT/CT/5(P)	Lataguri	Barodighi	Sursuti/2,4	26.773500	88.793033
		SURS/CT/23	JPG/LT/CT/6(P)	Lataguri	Barodighi	Sursuti/2,4	26.774650	88.794800
		PANJ/CT/17	JPG/CH/CT/7(P)	Chalsa	Panijhora	Panijhora	26.873767	88.861550
		CMOR/CT/31	JPG/MOR/CT/8(P)	Moraghat	Khutimari	SMG-3	26.711750	89.011900
		RETI /CT/2	JPG/BH/CT/9(P)	Banarhat	Reti	Reti - 1	26.804500	89.109650
Cinnamomum cecidodaphne	01	CMOR/CC/5	JPG/MG/CC/1(P)	Moraghat	Khutimari	CMG-10	26.719483	89.099317
Dalbergia sissoo	01	DIANA/DS/18	JPG/DN/DS/1(P)	Diana	Karon	C-Diana	26.857983	89.004150
Dipterocarpus turbinatus	01	SMOR/DT/2	JPG/ MOR /DT/1(P)	Moraghat	Khutimari	SMG-7	26.723550	88.973667
Gmelina arborea	06	RETI/ GA / 26	JPG/BH/GA/1(P)	Banarhat	Reti	Reti - 1	26.804483	89.109450
		RETI/ GA / 25	JPG/BH/GA/2(P)	Banarhat	Reti	Reti - 1	26.804517	89.109733
		CENT/GA/9	JPG/LT/GA/3(P)	Lataguri	Central	Central-4	26.746683	88.784033
		CENT/GA/11	JPG/ LT/GA/4(P)	Lataguri	Central	Central-4	26.747100	88.784383
		SURS/GA/13	JPG/ LT/GA/5(P)	Lataguri	Central	Central-4	26.748233	88.779200

		BARA/GA/20	JPG/ LT/GA/6(P)	Lataguri	Barodighi	Sursuti-4	26.730183	88.786750
Lagerstroemia flos reginae	11	PANJ-LF-24	JPG/CH/LF/1(P)	Chalsa	Panijhora	Panijhora	26.873083	88.847850
		PANJ-LF-21	JPG/ CH/LF/2(P)	Chalsa	Panijhora	Panijhora	26.871867	88.848883
		CENT/LF/11	JPG/LT/LF/3(P)	Lataguri	Central	Central-3,4	26.746900	88.783317
		CENT/LF/12	JPG/ LT/LF/4(P)	Lataguri	Central	Central-3,4	26.742567	88.777600
		CENT/LF/13	JPG/ LT/LF/5(P)	Lataguri	Central	Central-3,4	26.742917	88.778267
		CENT/LF/14	JPG/ LT/LF/6(P)	Lataguri	Central	Central-3,4	26.743017	88.778267
		CENT/LF/15	JPG/ LT/LF/7(P)	Lataguri	Central	Central-3,4	26.747417	88.767450
		BARA/LF/26	JPG/ LT/LF/8(P)	Lataguri	Baradighi	Barodighi	26.730683	88.787017
		BARA/LF/27	JPG/ LT/LF/9(P)	Lataguri	Baradighi	Barodighi	26.732033	88.787850
		BARA/LF/28	JPG/ LT/LF/10(P)	Lataguri	Baradighi	Barodighi	26.732867	88.788500
		JPG/LT/LF/1	JPG/ LT/LF/11(P)	Lataguri	Baradigi	Baradigi	26.770517	88.780667
Lagerstroemia parviflora	01	BARA/LP/7	JPG/LT/LP/1(P)	Lataguri	Barodighi	Barodighi	26.729550	88.784750
Michelia champaca	04	CENT/MC/15	JPG/LT/MC/1(P)	Lataguri	Central	Central/3	26.745983	88.780017
		CENT/MC/18	JPG/LT/MC/2(P)	Lataguri	Central	Central/3	26.745533	88.779750
		SMOR-MC-19	JPG/ MOR /MC/3(P)	Moraghat	Khutimari	SMG-1,8	26.719433	88.973617
		JPG/LT/MC/4	JPG/LT/MC/4(P)	Lataguri	Central	Central	26.779183	88.779333
Pterocarpus marsupium	01	CMOR/DM/1	JPG/ MOR /PM/1(P)	Moraghat	Khutimari	CMG-11	26.431630	89.594590
Schima wallichii	13	SMOR-SW-1	JPG/ MOR /SW/1(P)	Moraghat	Khutimari	SMG-1,3	26.713717	88.976250
		SMOR-SW-5	JPG/ MOR /SW/2(P)	Moraghat	Khutimari	SMG-1,3	26.713217	89.010767
		SURS/SW/7	JPG/LT/SW/3(P)	Lataguri	Central	Sursuti /5	26.732167	88.776050
		SURS/SW/8	JPG/LT/SW/4(P)	Lataguri	Central	Sursuti /5	26.730933	88.774167
		SURS/SW/9	JPG/LT/SW/5(P)	Lataguri	Central	Sursuti /5	26.743433	88.776433
		CENT/SW/10	JPG/LT/SW/6(P)	Lataguri	Central	Central-4	26.745833	88.780067
		BARA/SW/11	JPG/LT/SW/7(P)	Lataguri	Baradighi	Baradighi	26.739883	88.794900
		BARA/SW/12	JPG/LT/SW/8(P)	Lataguri	Baradighi	Baradighi	26.740583	88.786167
		CELKA/SW/14	JPG/NG/SW/9	N Gorumara	Khunia	Chelka 2	26.854950	88.871517
		JPG/LT/SW/3	JPG/LT/SW/7(P)	Lataguri	Borodigi	Lataguri	26.772050	88.783300
		JPG/LT/SW/5	JPG/LT/SW/8(P)	Lataguri	Borodigi	Lataguri	26.784333	88.785833
		JPG/CH/SW/9	JPG/CH/SW/9(P)	Chalsa	Panijhora	Panijhora	26.872133	88.844583
		JPG/LT/SW/10	JPG/LT/SW/10(P)	Lataguri	Central	Central-3	26.733633	88.788750
		JPG/LT/SW/11	JPG/LT/SW/11(P)	Lataguri	Central	Central-3	26.738100	88.792683
		JPG/LT/SW/13	JPG/LT/SW/12(P)	Lataguri	Borodigi	Sursuti-4	26.799267	88.795950
		JPG/LT/SW/14	JPG/LT/SW/13(P)	Lataguri	Borodigi	Sursuti-4	26.792467	88.797983

Shorea robusta	06	SMOR/SR/35	JPG/ MOR /SR/1(P)	Moraghat	Khutimari	CMG-2	26.718067	88.976867
		JPG/LT/SR/2	JPG/LT /SR/2(P)	Lataguri	Central	Central-3	26.733400	88.788467
		JPG/LT/SR/3	JPG/ LT /SR/3(P)	Lataguri	Borodigi	Sursuti	26.765483	88.778417
		JPG/LT/SR/5	JPG/ LT /SR/4(P)	Lataguri	Borodigi	Sursuti-4	26.792883	88.797700
		JPG/LT/SR/6	JPG LT /SR/5(P)	Lataguri	Borodigi	Sursuti-4	26.792883	88.797700
		JPG/LT/SR/7	JPG/ LT /SR/6(P)	Lataguri	Borodigi	Sursuti-4	26.777867	88.784050
Sterculia villosa	02	DIANA/SV/2	JPG/DN/SV/1(P)	Diana	karon	C-Diana	26.854350	89.001400
		DIANA/SV/3	JPG/DN/SV/2(P)	Diana	karon	C-Diana	26.854200	89.001000
Swietenia mahogany	02	SMOR/SM/3	JPG/ MOR /SM/1(P)	Moraghat	Khutimari	SMG-7	26.722417	88.974950
		SMOR/SM/4	JPG/ MOR /SM/2(P)	Moraghat	Khutimari	SMG-7	26.722367	88.807883
Tectona grandis	13	RETI/TG/54	JPG/BH/TG/1(P)	Banarhat	Reti	Reti - 1	26.791550	89.104783
		RETI/TG/55	JPG/ BH/TG/2(P)	Banarhat	Reti	Reti - 1	26.791067	89.104767
		RETI/TG/56	JPG/ BH/TG/3(P)	Banarhat	Reti	Reti - 1	26.795267	89.108867
		SMOR/TG/51	JPG/ MOR/TG/4(P)	Moraghat	Khutimari	SMG-1	26.718600	88.976383
		GOSAI/TG/53	JPG/ MOR/TG/5(P)	Moraghat	Sonakhali	Gosaihat-3	26.644317	89.025850
		CENT/TG/31	JPG/ LT/TG/6(P)	Lataguri	Central	Central-4	26.750500	88.782183
		CENT/TG/33	JPG/ LT/TG/7(P)	Lataguri	Barodighi	Sursuti/1,2	26.768350	88.826883
		CENT/TG/34	JPG/ LT/TG/8(P)	Lataguri	Barodighi	Sursuti/1,2	26.768433	88.793233
		CENT/TG/35	JPG/ LT/TG/9(P)	Lataguri	Barodighi	Sursuti/1,2	26.768850	88.793233
		CENT/TG/37	JPG/ LT/TG/10(P)	Lataguri	Barodighi	Sursuti/1,2	26.722017	88.792550
		CENT/TG/38	JPG/ LT/TG/11(P)	Lataguri	Barodighi	Sursuti/1,2	26.771800	88.792183
		KHUN/TG/41	JPG/ LT/TG/12(P)	Lataguri	Khunia	Khunia	26.875717	88.870600
		JPG/LT/TG/1	JPG/ LT/TG/13(P)	Lataguri	Boradigi	Sursuti-4	26.773400	88.793333
Terminalia bellirica	01	DIANA/TB/7	JPG/DN/TB/1(P)	Diana	Karon	C- Diana	26.855850	89.001600
		BARA/TB/11	JPG/DN/TB/2(P)	Lataguri	Lataguri	Bicha-1	26.376867	88.768700
Terminalia tomentosa	02	SURS/TT/22	JPG/LT/TT/1(P)	Lataguri	Barodighi	Sursuti/2	26.789350	88.797217
		CENT/TT/10	JPG/LT/TT/2(P)	Lataguri	Central	Central 3	26.743533	88.778700
Toona ciliata	01	SURS/TC/2	JPG/LT/TC/1(P)	Lataguri	Barodighi	Sursuti/2	26.768500	88.793217

Table 1.D.3 Location Details of Screened Candidate Plus Trees in Jalpaiguri Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Albizia procera	02	CMOR/AP/2	JPG/MOR/AP/1	Moraghat	Khutimari	CMG-11	26.432470	89.595640
		CMOR/AP/3	JPG/MOR/AP/2	Moraghat	Khutimari	CMG-11	26.432520	89.595460
Anthocephalus cadamba	03	CENT/AC/1	JPG/LT/AC/1	Lataguri	Central	Cenrtral 3	26.744017	88.779433
		CENT/AC/2	JPG/ LT/AC/2	Lataguri	Central	Cenrtral 3	26.743717	88.779067
		JPG/LT/AC/1	JPG/ LT/AC/3	Lataguri	Borodigi	Borodigi	26.767600	88.779850
Bombax ceiba	04	RETI/ BC/4	JPG/BH/BC/1	Banarhat	Reti	Reti - 1	26.795667	89.094033
		PAN/BC/11	JPG/CH/BC/2	Chalsa	Panijhora	Panijhora	26.872200	88.857217
		DIANA/BC/13	JPG/DN/BC/3	Diana	Sulkapara	C-Diana	26.866483	88.996233
		SURS/BC/1	JPG/LT/BC/4	Lataguri	Central	Sursuti-4	26.746300	88.779150
Chukrasia tabularis	04	PANJ/CT/14	JPG/CH/CT/1	Chalsa	Panijhora	Panijhora	26.523370	88.616380
		PANJ/CT/15	JPG/CH/CT/2	Chalsa	Panijhora	Panijhora	26.52345	88.51666
		PANJ/CT/16	JPG/CH/CT/3	Chalsa	Panijhora	Panijhora	26.52418	88.51677
		CMOR/CT/32	JPG/MOR/CT/4	Moraghat	Khutimari	SMG-3	26.711783	89.011800
Cinnamomum cecidodaphne	03	JPG/MOR/CC/1	JPG/MOR/CC/1	Moraghat	Khutimari	Khutimari	26.719417	88.993183
		JPG/MOR/CC/2	JPG/MOR/CC/2	Moraghat	Khutimari	Khutimari	26.719967	88.993067
		JPG/MOR/CC/3	JPG/MOR/CC/3	Moraghat	Khutimari	Khutimari	26.719333	88.992817
Dalbergia sissoo	02	PANJ-DS-9	JPG/CH/DS/1	Chalsa	Painjhora	Panijhora	26.528330	89.500000
		DIANA/DS/22	JPG/DN/DS/2	Diana	Karon	C-Diana	26.857733	89.003383
Dipterocarpus macrocarpus	01	CENT/DM/1	JPG/LT/DM/1	Lataguri	Central	Central 2	26.750917	88.781583
Pterocarpus marsupium	02	CMOR/DM/2	JPG/MOR/PM/1	Moraghat	Khutimari	CMG-11	26.719567	89.991150
		CMOR/DM/3	JPG/MOR/PM/2	Moraghat	Khutimari	CMG-11	26.719717	89.991067
Dipterocarpus turbinatus	05	LATA/DT/8	JPG/LT/DT/1	Lataguri	Lataguri	Bicha-1	26.376867	88.768700
		CMOR/DT/4	JPG/MOR/DT/2	Moraghat	Khutimari	CMG-11	26.719450	89.991900
		CMOR/DT/5	JPG/MOR/DT/3	Moraghat	Khutimari	CMG-11	26.719383	89.991667
		CMOR/DT/6	JPG/MOR/DT/4	Moraghat	Khutimari	CMG-11	26.719500	89.991150
		CMOR/DT/7	JPG/MOR/DT/5	Moraghat	Khutimari	CMG-11	26.719600	89.993017
Gmelina arborea	11	RETI/ GA / 24	JPG/BH/GA/1	Banarhat	Reti	Reti - 1	26.804800	89.110267
		CENT/GA/7	JPG/LT/GA/2	Lataguri	Central	Central-4	26.746342	88.783233
		CENT/GA/8	JPG/LT/GA/3	Lataguri	Central	Central-4	26.747000	88.783750
		CENT/GA/10	JPG/LT/GA/4	Lataguri	Central	Central-4	26.746717	88.783950
		SURS/GA/12	JPG/LT/GA/5	Lataguri	Barodighi	Sursuti/2	26.746533	88.769750
		CENT/GA/6	JPG/LT/GA/6	Lataguri	Central	Central 4	26.745317	88.783433
		BARA/GA/18	JPG/LT/GA/7	Lataguri	Barodighi	Sursuti-2	26.730433	88.786817

		BARA/GA/19	JPG/LT/GA/8	Lataguri	Barodighi	Sursuti-3	26.730050	88.786917
		BARA/GA/21	JPG/LT/GA/9	Lataguri	Barodighi	Sursuti-5	26.729883	88.785950
		BARA/GA/22	JPG/LT/GA/10	Lataguri	Barodighi	Sursuti-6	26.729817	88.786083
		BARA/GA/23	JPG/LT/GA/11	Lataguri	Barodighi	Sursuti-7	26.730300	88.786883
Lagerstroemia flos reginae	06	PANJ-LF-17	JPG/CH/LF/1	Chalsa	Panijhora	Panijhora	26.888800	88.850950
		PANJ-LF-18	JPG/CH/LF/2	Chalsa	Panijhora	Panijhora	26.872167	88.849700
		PANJ-LF-19	JPG/CH/LF/3	Chalsa	Panijhora	Panijhora	26.872183	88.849017
		PANJ-LF-20	JPG/CH/LF/4	Chalsa	Panijhora	Panijhora	26.872283	88.848883
		PANJ-LF-23	JPG/CH/LF/5	Chalsa	Panijhora	Panijhora	26.872667	88.847950
		PANJ-LF-25	JPG/CH/LF/6	Chalsa	Panijhora	Panijhora	26.872883	88.846317
Lagerstroemia parviflora	02	BICHA/LP/6	JPG/LT/LP/1	Lataguri	Bichabhanga	Bicha-1	26.718267	88.775950
		DIANA/LP/5	JPG/DN/LP/2	Diana	Karon	C- Diana	26.854367	89.001150
Laphopetalum fimbriatum	01	CENT/LF/1	JPG/LT/LW/1	Lataguri	Central	Central 3	26.742850	88.777900
Michelia champaca	07	CENT/MC/16	JPG/LT/MC/1	Lataguri	Central	Central/3	26.746050	88.779983
		CENT/MC/17	JPG/LT/MC/2	Lataguri	Central	Central/3	26.746000	88.779733
		SURS/MC/21	JPG/LT/MC/3	Lataguri	Barodighi	Sursuti/1,4	26.748667	88.780067
		SMOR-MC-20	JPG/MOR/MC/4	Moraghat	Khutimari	SMG-1,8	26.720300	88.973350
		JPG/LT/MC/1	JPG/LT/MC/5	Lataguri	borodighi	Khunia	26.862467	88.877283
		JPG/LT/MC/2	JPG/LT/MC/6	Lataguri	borodighi	Sursuti-4	26.773183	88.793150
		JPG/LT/MC/3	JPG/LT/MC/7	Lataguri	borodighi	Sursuti-11	26.749367	88.779767
Machilus villosa	01	BORO/MV/2	JPG/LT/MV/1	Lataguri	Budram	Borohati	26.734650	88.790150
Schima wallichii	09	SMOR-SW-6	JPG/MOR/SW/1	Moraghat	Khutimari	SMG-1,3	26.713500	89.010800
		CELKA/SW/13	JPG/NG/SW/2	N Gorumara	Khunia	Chelka 2	26.855183,	88.871717
		JPG/LT/SW/12	JPG/ LT/SW/3	Lataguri	Central	Lataguri	26.728650	88.775367
		JPG/LT/SW/15	JPG/ LT/SW/4	Lataguri	Borodigi	Sursuti-4	26.773317	88.793417
		JPG/LT/SW/1	JPG/ LT/SW/5	Lataguri	Borodigi	Lataguri	26.616983	88.533217
		JPG/LT/SW/2	JPG/ LT/SW/6	Lataguri	Borodigi	Lataguri	26.767233	88.779467
		JPG/LT/SW/4	JPG/ LT/SW/7	Lataguri	Borodigi	Lataguri	26.784867	88.786117
		JPG/LT/SW/6	JPG/ LT/SW/8	Lataguri	Borodigi	Lataguri	26.784500	88.785750
		JPG/LT/SW/7	JPG/ LT/SW/9	Lataguri	Borodigi	Lataguri	26.784667	88.785800
		JPG/LT/SW/8	JPG/ LT/SW/10	Lataguri	Borodigi	Lataguri	26.785400	88.785767
Shorea robusta	03	JPG/CH/SR/1	JPG/CH/SR/1	Chalsa	panijhra	panijhora	26.872367	88.864783
		JPG/LT/SR/4	JPG/LT/SR/2	Lataguri	Borodigi	Sursuti-4	26.775050	88.790033
		JPG/LT/SR/8	JPG/LT/SR/3	Lataguri	Baradigi	Baradigi	26.765483	88.778117
Sterculia villosa	02	DIANA/SV/1	JPG/DN/SV/1	Diana	karon	Atiamochar	26.854600	89.001050
		DIANA/SV/4	JPG/DN/SV/2	Diana	karon	C-Diana	26.854533	89.000117
Tectona grandis	12	CENT/TG/29	JPG/LT/TG/1	Lataguri	Central	Central-4	26.750100	88.781167

		CENT/TG/30	JPG//LT/TG/2	Lataguri	Central	Central-4	26.750183	88.781617
		CENT/TG/32	JPG//LT/TG/3	Lataguri	Central	Central-4	26.750500	88.782133
		CENT/TG/36	JPG//LT/TG/4	Lataguri	Barodighi	Sursuti/1,2	26.772367	88.792950
		KHUN/TG/39	JPG/ LT/TG/5	Lataguri	Khunia	Khunia	26.876950	88.870533
		KHUN/TG/40	JPG/ LT/TG/6	Lataguri	Khunia	Khunia	26.877233	88.870583
		KHUN/TG/42	JPG/ LT/TG/7	Lataguri	Khunia	Khunia	26.875900	88.870933
		SMOR/TG/47	JPG/ MOR/TG/8	Moraghat	Khutimari	SMG-1	26.718917	88.976050
		SMOR/TG/48	JPG/MOR/TG/9	Moraghat	Khutimari	SMG-1	26.718900	88.976767
		SMOR/TG/49	JPG/ MOR/TG/10	Moraghat	Khutimari	SMG-1	26.718800	88.975983
		SMOR/TG/50	JPG/ MOR/TG/11	Moraghat	Khutimari	SMG-1	26.718817	88.976717
		SMOR/TG/52	JPG/ MOR/TG/12	Moraghat	Khutimari	SMG-1	26.718567	88.975667
Terminalia bellirica	04	DIANA/TB/8	JPG/DN/TB/1	Diana	Karon	C- Diana	26.855967	89.001467
		DIANA/TB/9	JPG/DN/TB/2	Diana	Karon	C- Diana	26.855933	89.002983
		SURS/TB/8	JPG/LT/TB/3	Lataguri	Central	Sursuti-4	26.746333	88.779050
		BICHA/TB/3	JPG/LT/TB/4	Lataguri	Bichabhanga	Bichabhanga	26.742850	88.777900
Terminalia tomentosa	01	SURS/TT/24	JPG/LT/TT/1	Lataguri	Barodighi	Sursuti/2	26.789533	88.791000

1.E Kurseong division

46 plus trees along with 20 candidate plus trees were finally marked in Kurseong division and location details have been collected for the same (Table 1.E.1, 1.E.2 & 1.E.3).

Table. 1.E.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kurseong Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acrocarpus fraxinifolius*	02	05
2.	*Adina cordifolia*	05	01
3.	*Ailanthus grandis*	03	02
4.	*Chukrasia tabularis*	13	01
5.	*Dalbergia sissoo*	01	0
6.	*Lagerstroemia hypoleuca*	02	05
7.	*Schima wallichii*	00	04
8.	*Terminalia bellirica*	03	01
9.	*Terminalia chebula*	00	01
10.	*Terminalia tomentosa*	17	00
	Total	**46**	**20**

Table 1.E.2 Location Details of Screened Plus Trees in Kurseong Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acrocarpus fraxinifolius	02	KHAIR/AF/2	KS/PG/AF/1(P)	Panighata	Khairbani	Khairbani -2	26.797333	88.209767
		KHAIR/AF/4	KS/PG/AF/2(P)	Panighata	Khairbani	Khairbani -2	26.800183	88.210417
Adina cordifolia	05	TURK/ACO/1	KS/TJ/AC/1(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645217	88.180233
		TURK/ACO/2	KS/TJ/AC/2(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645250	88.180183
		TURK/ACO/3	KS/TJ/AC/3(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645167	88.180433
		TURK/ACO/4	KS/TJ/AC/4(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645133	88.182133
		TURK/ACO/5	KS/TJ/AC/5(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646067	88.181633
Ailanthus grandis	03	KHAIR/AG/3	KS/PG/AG/1(P)	Panighata	Khairbani	Khairbani -2	26.798217	88.210383
		KHAIR/AG/6	KS/PG/AG/2(P)	Panighata	Khairbani	Khairbani -2	26.797517	88.210133
		KHAIR/AG/8	KS/PG/AG/3(P)	Panighata	Khairbani	Khairbani -2	26.797883	88.210317
Chukrasia tabularis	13	LOHA/CT/2	KS/PG/CT/1(P)	Panighata	Lohagarh	Lohagarh	26.782350	88.207517
		LOHA/CT/3	KS/PG/CT/2(P)	Panighata	Lohagarh	Lohagarh	26.766983	88.207450
		KHAIR/CT/4	KS/PG/CT/3(P)	Panighata	Khairbani	Khairbani	26.800933	88.204200
		KHAIR/CT/5	KS/PG/CT/4(P)	Panighata	Khairbani	Khairbani	26.801417	88.204333
		KHAIR/CT/6	KS/PG/CT/5(P)	Panighata	Khairbani	Khairbani	26.800450	88.204200
		KHAIR/CT/7	KS/PG/CT/6(P)	Panighata	Khairbani	Khairbani	26.800600	88.204417
		KHAIR/CT/8	KS/PG/CT/7(P)	Panighata	Khairbani	Khairbani	26.798800,	88.205817
		KHAIR/CT/9	KS/PG/CT/9(P)	Panighata	Khairbani	khairbani-2	26.798467	88.208717
		KHAIR/CT/10	KS/PG/CT/10(P)	Panighata	Khairbani	khairbani-2	26.796900	88.208467
		KHAIR/CT/11	KS/PG/CT/11(P)	Panighata	Khairbani	khairbani-2	26.799317	88.207817
		KHAIR/CT/12	KS/PG/CT/12(P)	Panighata	Khairbani	khairbani-2	26.798867	88.206733
		KHAIR/CT/13	KS/PG/CT/13(P)	Panighata	Khairbani	Khairbani-2	26.799850	88.204650
Dalbergis sissoo	01	LOHA/DS/1	KS/PG/DS/1(P)	Panighata	Lohagarh	Lohagarh	26046.781' N	88012.306' E
Lagerstroemia hypoleuca	02	KHAIR/LH/2	KS/PG/LH/1(P)	Panighata	Khairbani	Khairbani -2	26.799867	88.210450
		KHAIR/LH/4	KS/PG/LH/2(P)	Panighata	Khairbani	Khairbani -2	26.799483	88.210517
Terminalia bellirica	03	TURK/TB/3	KS/TJ/TB/1(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645917	88.179867
		TURK/TB/4	KS/TJ/TB/2(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645283	88.169767
		TURK/TB/6	KS/TJ/TB/3(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646183	88.180950
Terminalia tomentosa	17	TUKR/TT/5	KS/TJ/TT/1(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645767	88.179267
		TUKR/TT/6	KS/TJ/TT/2(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645883	88.179400
		TUKR/TT/7	KS/TJ/TT/3(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645900	88.182967
		TUKR/TT/8	KS/TJ/TT/4(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646050	88.179900
		TUKR/TT/9	KS/TJ/TT/5(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.649233	88.179567

		TUKR/TT/10	KS/TJ/TT/6(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645900	88.179700
		TUKR/TT/11	KS/TJ/TT/7(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645917	88.179583
		TUKR/TT/12	KS/TJ/TT/8(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646383	88.180217
		TUKR/TT/13	KS/TJ/TT/9(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646417	88.180017
		TUKR/TT/15	KS/TJ/TT/10(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646233	88.180117
		TUKR/TT/16	KS/TJ/TT/11(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.646367	88.180367
		TUKR/TT/18	KS/TJ/TT/12(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645500	88.181233
		TUKR/TT/19	KS/TJ/TT/13(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645617	88.181367
		TUKR/TT/20	KS/TJ/TT/14(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645400	88.181617
		TUKR/TT/21	KS/TJ/TT/15(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.645817	88.181483
		PANI/TT/1	KS/TJ/TT/16(P)	Panighata	Panighata	Barakothi	26.799083	88.236400
		PANI/TT/2	KS/TJ/TT/17(P)	Panighata	Panighata	Barakothi	26.800350	88.235417

Table 1.E.3 Location Details of Screened Candidate Plus Trees in Kurseong Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acrocarpus fraxinifolius	05	KHAIR/AF/6	KS/PG/AF/1	Panighata	Khairbani	Khairbani 2	26.802333	88.208633
		KHAIR/AF/7	KS/PG/AF/2	Panighata	Khairbani	Khairbani 2	26.802083	88.208433
		KHAIR/AF/8	KS/PG/AF/3	Panighata	Khairbani	Khairbani 2	26.802000	88.208317
		KHAIR/AF/9	KS/PG/AF/4	Panighata	Khairbani	Khairbani 2	26.802567	88.208550
		KHAIR/AF/10	KS/PG/AF/5	Panighata	Khairbani	Khairbani 2	26.802367	88.208350
Adina cordifolia	01	TURK/ACO/6	KS/TJ/AC/1	Tukriajhar	Tukriajhar	Tukriajhar	26.646150	88.181850
Ailanthus grandis	02	KHAIR/AG/1	KS/PG/AG/1	Panighata	Khairbani	Khairbani -2	26.797383	88.210250
		KHAIR/AG/4	KS/PG/AG/2	Panighata	Khairbani	Khairbani -2	26.796467	88.209750
Chukrasia tabularis	01	LOHA/CT/1	KS/PG/CT/1	Panighata	Lohagarh	Lohagarh	26.782167	88.207617
Lagerstroemia hypoleuca	05	KHAIR/LH/1	KS/PG/LH/1	Panighata	Khairbani	Khairbani-2	26.799950	88.210683
		KHAIR/LH/5	KS/PG/LH/2	Panighata	Khairbani	Khairbani -2	26.799733	88.210667
		KHAIR/LH/6	KS/PG/LH/3	Panighata	Khairbani	Khairbani -2	26.801300	88.210150
		KHAIR/LH/7	KS/PG/LH/4	Panighata	Khairbani	Khairbani -2	26.801300	88.210117
		KHAIR/LH/10	KS/PG/LH/5	Panighata	Khairbani	Khairbani-5	26.800350	88.210500
Schima wallichii	04	HUR/SW/1	KS/BD/SW/1	Bagdgra	Bagdgra	Hurulia	26.709400	88.288583
		HUR/SW/2	KS/BD/SW/2	Bagdgra	Bagdgra	Hurulia	26.776317	88.288467
		HUR/SW/3	KS/BD/SW/3	Bagdgra	Bagdgra	Hurulia	26.709683	88.288117
		HUR/SW/4	KS/BD/SW/4	Bagdgra	Bagdgra	Hurulia	26.709550	88.288550
Terminalia chebula	01	HUR/TC/8	KS/BD/TC/1	Bagdgra	Bagdgra	Hurulia	26.698783	88.310567
Terminalia bellirica	01	TURK/TB/5		Tukriajhar	Tukriajhar	Tukriajhar	26.646850	88.180033

1.F Wildlife-II Division

In wildlife-II, 21trees have been screened as plus trees and 27as candidate plus trees (Table 1.F.1). Table 1.F.2 and 1.F.3 showed the location details of plus trees and candidate plus trees respectively.

Table. 1.F.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Wildlife-II Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Albizia procera*	01	00
2.	*Amoora wallichii*	02	00
3.	*Bombax ceiba*	01	01
4.	*Chukrasia tabularis*	01	01
5.	*Gmelina arborea*	01	05
6.	*Lagerstroemia flos reginae*	01	02
7.	*Lagerstroemia parviflora*	01	00
8.	*Michelia Champaca*	02	00
9.	*Schima wallichii*	03	03
10.	*Shorea robusta*	03	04
11.	*Tectona grandis*	00	01
12.	*Terminalia bellirica*	01	00
13.	*Terminalia tomentosa*	03	10
14.	*Toona ciliata*	01	00
	Total	**21**	**27**

Table 1.F.2 Location Details of Screened Plus Trees in Wildlife-II Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Albizia procera	01	RARA/AP/1	WLII/SG/AP/1(P)	South Gorumara	South Gorumara	Barahati-1	26.731517	88.787350
Amoora wallichii	02	BARA/AW/8	WLII/SG/AW/1(P)	South Gorumara	Budhram	Barahati -3	26.730883	88.833283
		BARA/AW/9	WLII/SG/AW/2(P)	South Gorumara	Budhram	Barahati -3	26.729983	88.787150
Chukrasia tabularis	01	CELKA/CT/34	WLII/NG/CT/1(P)	North Gorumara	Khunia	Celka-2	26.843950	88.877767
Bombax ceiba	01	BARA-BC-7	WLII/NG/BC/1(P)	Jalpiguri	Lataguri	Barahati	26.740283	88.795217
Gmelina arborea	01	BARA/GA/18	WLII/SG/GA/1(P)	South Gorumara	Budhram	Barahati-1,3	26.730350	88.786817
Lagerstroemia flos reginae	01	BARA/LF/27	WLII/SG/LF/1(P)	South Gorumara	Budhram	Barohati	26.731900	88.787950
Lagerstroemia parviflora	01	BARA/LP/7	WLII/SG/LP/1(P)	South Gorumara	Budhram	Barahati-3	26.729600	88.784717
Michelia champaca	03	Hilla/MC/24	WLII/NG/MC/1(P)	North Gorumara	Khunia	Hillajhora	26.862167	88.877533
		BARO/MC/23	WLII/SG/MC/2(P)	South Gorumara	Budhram	Barohati	26.728567	88.798550
Schima wallichii	03	BARA/SW/11	WLII/SG/SW/1(P)	South Gorumara	Budhram	Barahati -1,3	26.728017	88.795217
		CELKA/SW/13	WLII/NG/SW/2(P)	North Gorumara	Khunia	Shelka-2	26.955183	88.871717
		CELKA/SW/14	WLII/NG/SW/3(P)	North Gorumara	Khunia	Shelka-2	26.954950	88.871517
Shorea robusta	02	BARA/SR/38	WLII/NG/SR/1(P)	North Gorumara	Khulna	Shelka-2	26.836150	88.878217
		BARA/SR/44	WLII/NG/SR/2(P)	South Gorumara	Budhram	Bharahati/2,3	26.726450	88.833983

Terminalia bellirica	01	BARA/TB/11	WLII/SG/TB/1(P)	South Gorumara	South Gorumara	Barahati-1	26.732900	88.788717
Terminalia tomentosa	03	BHOGAL/TT/41	WLII/NG/TT/1(P)	North Gorumara	Murti	Bhogalmardi	26.815200	88.835650
		BARA/TT/28	WLII/SG/TT/2(P)	South Gorumara	Budhram	Barahati -1,3	26.731017	88.787600
		BARA/TT/39	WLII/SG/TT/3(P)	South Gorumara	Budhram	Barahati - 1,10	26.727933	88.832133
Toona ciliata	01	BARA/TC/4	WLII/SG/TC/1(P)	South Gorumara	South Gorumara	Barahati-1	26.737883	88.792733

Table 1.F.3 Location Details of Screened Candidate Plus Trees in Wildlife-II Division

Species	**No. of Trees**	**Old Tree No.**	New Tree No.	**Range**	**Beat**	**Location**	**Latitude**	**Longitude**
Chukrasia tabularis	01	CELKA/CT/35	WLII/NG/CT/1	North Gorumara	Khunia	Celka-2	26.843817	88.877717
Bombax ceiba	01	BARA-BC-8	WLII/NG/CT/2	Jalpiguri	Lataguri	Barahati	26.740050	88.795150
Gmelina arborea	05	BARA/GA/19	WLII/SG/GA/1	South Gorumara	Budhram	Barahati-1,3	26.730117	88.786983
		BARA/GA/20	WLII/SG/GA/2	South Gorumara	Budhram	Barahati-1,3	26.730117	88.786600
		BARA/GA/21	WLII/SG/GA/3	South Gorumara	Budhram	Barahati-1,3	26.729883	88.786000
		BARA/GA/22	WLII/SG/GA/4	South Gorumara	Budhram	Barahati-1,3	26.729967	88.786083
		BARA/GA/23	WLII/SG/GA/5	South Gorumara	Budhram	Barahati-1,3	26.730283	88.786867
Lagerstroemia flos reginae	02	BARA/LF/26	WLII/SG/LF/1	South Gorumara	Budhram	Barohati	26.730700	88.787050
		BARA/LF/28	WLII/SG/LF/2	South Gorumara	Budhram	Barohati	26.732850	88.788550
Schima wallichii	03	BARA/SW/12	WLII/SG/SW/1	South Gorumara	Budhram	Barahati -1,3	26.737333	88.792600
		WLII/NG/SW/1	WLII/SG/SW/2	N Gorumara	Khunia	Khunia	26.865600	88.869450

		WLII/SG/SW/2	WLII/SG/SW/3	S Gorumara	Bechabhanga	Borohati-1	26.729033	88.797483
Shorea robusta	04	WLII/NG/SR/1	WLII/NG/SR/1	N Gorumara	Khunia	Khunia	26.881067	88.881067
		WLII/NG/SR/2	WLII/NG/SR/2	N Gorumara	Khunia	Khunia	26.862733	88.877500
		WLII/NG/SR/3	WLII/NG/SR/3	N Gorumara	Khunia	Khunia	26.858900	88.869100
		WLII/NG/SR/4	WLII/NG/SR/4	N Gorumara	Khunia	Khunia	26.865083	88.868983
Tectona grandis	01	WLII/SG/TG/1	WLII/SG/TG/1	S Gorumara	Bichabhanga	Borahati-1	26.729433	88.800250
Terminalia tomentosa	10	BHOGAL/TT/40	WLII/NG/TT/1	North Gorumara	Murti	Bhogalmardi	26.814700	88.835650
		BHOGAL/TT/42	WLII/NG/TT/2	North Gorumara	Murti	Bhogalmardi	26.814717	88.835317
		BHOGAL/TT/43	WLII/NG/TT/3	North Gorumara	Murti	Bhogalmardi	26.813400	88.835067
		BARA/TT/27	WLII/SG/TT/4	South Gorumara	Budhram	Barahati -1,3	26.731317	88.787750
		BARA/TT/29	WLII/SG/TT/5	South Gorumara	Budhram	Barahati -1,3	26.728017	88.833383
		BARA/TT/30	WLII/SG/TT/6	South Gorumara	Budhram	Barahati -1,3	26.728317	88.833667
		BARA/TT/35	WLII/SG/TT/7	South Gorumara	Budhram	Barahati -1,6	26.728550	88.832883
		BARA/TT/36	WLII/SG/TT/8	South Gorumara	Budhram	Barahati -1,7	26.728450	88.832550
		BARA/TT/37	WLII/SG/TT/9	South Gorumara	Budhram	Barahati -1,8	26.728433	88.832433
		BARA/TT/38	WLII/SG/TT/10	South Gorumara	Budhram	Barahati -1,9	26.728317	88.832250

1.G Wildlife-III Division

Only 11 plus trees have been screened in WL-II division (Table 1.G.1, 1.G.2 and I.G.3).

Table. 1.G.1 Abstract of Plus Trees (Evaluated & Selected) in Wildlife-III Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Chukrasia tabularis*	02	00
2.	*Swieetnia mahagoni*	03	01
3.	*Mesua ferrea*	0	05
	Total	**05**	**06**

Table 1.G.2 Location Details of Screened Plus Trees in Wildlife-III Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Chukrasia tabularis	02	NKHAIR/CT/46	WLIII/KB/CT/1(P)	Khairbari	Madarihat	N.Khairbari	26.671923	89.246410
		NKHAIR/CT/47	WLIII/KB/CT/2(P)	Khairbari	Madarihat	N.Khairbari	26.671900	89.246420
Swieetnia mahagoni	03	SM/9	WLIII/KB/SM/1(P)	KODALBASTI	KODALBASTI	BARADABARI	26.63089	89.35334
		SM/10	WLIII/KB/SM/2(P)	KODALBASTI	KODALBASTI	BARADABARI	26.62816	89.35129
		SM/11	WLIII/KB/SM/3(P)	KODALBASTI	KODALBASTI	BARADABARI	26.62835	89.3505

Table 1.G.3 Location Details of Screened Candidate Plus Trees in Wildlife-III Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Swieetnia mahagoni	01	BDABRI/SM/1	WLIII/KB/SM/1	KODALBASTI	KODALBASTI	BARADABARI 7	26.62879	89.35037
Mesua ferrea	05	CHILA/MF/1	WLIII/CP/MF/1	CHILEPATA	CHILEPATA	B DABRI 7	26.57017.	89.3771
		CHILA/MF/2	WLIII/CP/MF/2	CHILEPATA	CHILEPATA	B DABRI 7	26.57037	89.37696
		CHILA/MF/3	WLIII/CP/MF/3	CHILEPATA	CHILEPATA	B DABRI 7	26.57041	89.37692
		CHILA/MF/4	WLIII/CP/MF/4	CHILEPATA	CHILEPATA	B DABRI 7	26.57125	89.37742
		CHILA/MF/5	WLIII/CP/MF/5	CHILEPATA	CHILEPATA	B DABRI 7	26.57111	89.37722

2. Silviculture South Circle

In Silviculture South Circle, 142 trees have been screened as plus trees and 670 trees as candidate plus trees in 12 different divisions and location details of same has been collected. Division wise details are as follow:

2.A Bankura (North)

In Bankura (N) Division, in totality 43 trees of 6 species have been marked as plus trees (08) and candidate plus trees (35). Abstract along with geo-referenced co-ordinates of plus trees and candidate plus trees is presented in Table 2.A.1, 2.A.2 and 2.A.3 respectively.

Table. 2.A.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Bankura (N) Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Adina cordifolia*	00	02
2.	*Alstonia scholaris*	00	01
3.	*Bombax ceiba*	05	10
4.	*Eucalyptus camaldulensis*	01	06
5.	*Eucalyptus citriodora*	02	12
6.	*Eucalyptus hybrid*	00	04
	Total	**08**	**35**

Table 2.A.2 Location Details of Screened Plus Trees in Bankura (N) Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Bombax ceiba	05	MEJI/BC/5	BNK(N)/MJ/BC/1(P)	Meija	Meija	Dangmejia	23.556100	87.127050
		MEJI/BC/9	BNK(N)/MJ/BC/2(P)	Meija	Meija	Dangmejia	23.556390	87.127450
		MEJI/BC/13	BNK(N)/MJ/BC/3(P)	Meija	Meija	Dangmejia	23.554410	87.126560
		MEJI/BC/14	BNK(N)/MJ/BC/4(P)	Meija	Meija	Dangmejia	23.557500	87.1265
		MEJI/BC/16	BNK(N)/MJ/BC/5(P)	Meija	Meija	Dangmejia	23.557278	87.125361
Eucalyptus camaldulensis	01	DHAR/EC/27	BNK(N)/BJ/EC/1(P)	Borjora	Kanchanpur	Dharampur	23.343667	87.231972
Eucalyptus citriodora	02	DHAR/EC/17	BNK(N)/BJ/ECT/1(P)	Borjora	Kanchanpur	Dharampur	23.373833	87.251083
		DHAR/EC/35	BNK(N)/ BJ/ECT/2(P)	Borjora	Kanchanpur	Dharampur	23.348944	87.227444

Table 2.A.3 Location Details of Screened Candidate Plus Trees in Bankura (N) Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Adina cordifolia	02	MEJI/AC/1	BNK(N)/MJ/AC/1	Meija	Meija	Dangmejia	23.557040	87.127270
		MEJI/AC/2	BNK(N)/MJ/AC/2	Meija	Meija	Dangmejia	23.561667	87.127361
Alstonia scholaris	01	MEJI/AS/1	BNK(N)/MJ/AS/1	Meija	Meija	Dangmejia	23.557850	87.126740
Bombax ceiba	10	MEJI/BC/1	BNK(N)/MJ/BC/1	Meija	Meija	Dangmejia	23.555960	87.126490
		MEJI/BC/2	BNK(N)/MJ/BC/2	Meija	Meija	Dangmejia	23.556240	87.126700
		MEJI/BC/3	BNK(N)/MJ/BC/3	Meija	Meija	Dangmejia	23.555710	87.126920
		MEJI/BC/4	BNK(N)/MJ/BC/4	Meija	Meija	Dangmejia	23.556290	87.127070
		MEJI/BC/6	BNK(N)/MJ/BC/5	Meija	Meija	Dangmejia	23.555790	87.127360
		MEJI/BC/7	BNK(N)/MJ/BC/6	Meija	Meija	Dangmejia	23.555870	87.127180
		MEJI/BC/8	BNK(N)/MJ/BC/7	Meija	Meija	Dangmejia	23.555620	87.127420
		MEJI/BC/10	BNK(N)/MJ/BC/8	Meija	Meija	Dangmejia	23.556860	87.127190
		MEJI/BC/12	BNK(N)/MJ/BC/9	Meija	Meija	Dangmejia	23.557330	87.126620
		MEJI/BC/15	BNK(N)/MJ/BC/11	Meija	Meija	Dangmejia	23.557472	87.12650
Eucalyptus camaldulensis	06	DHAR/EC/5	BNK(N)/BJ/EC/1	Borjora	Kanchanpur	Dharampur	23.344000	87.231806
		DHAR/EC/6	BNK(N)/BJ/EC/2	Borjora	Kanchanpur	Dharampur	23.343944	87.231861
		DHAR/EC/8	BNK(N)/BJ/EC/3	Borjora	Kanchanpur	Dharampur	23.343833	87.232083
		DHAR/EC/57	BNK(N)/BJ/EC/4	Borjora	Kanchanpur	Dharampur	23.343583	87.231806
		DHRM/EC/36	BNK(N)/BJ/EC/5	Borjora	Kanchanpur	Dharampur	23.343770	87.231780
		DHRM/EC/47	BNK(N)/BJ/EC/6	Borjora	Kanchanpur	Dharampur	23.343860	87.231830
Eucalyptus citriodora	12	DHAR/EC/25	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373722	23.373722
		DHAR/EC/45	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373722	87.251361
		DHAR/EC/50	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373861	87.250667
		DHAR/EC/57	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373667	87.251417
		DHAR/EC/69	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.348917	87.227028
		DHAR/EC/70	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.349083	87.227306
		DHAR/EC/84	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373583	87.251389
		DHAR/EC/98	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.349111	87.227556
		DHAR/EC/113	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.349278	87.227556
		DHAR/EC/132	BNK(N)/BJ/ECT/	Borjora	Kanchanpur	Dharampur	23.373639	87.250861
		DHRM/EC/153	BNK(N)/BJ/ECT/2	BAK(N)	Borjora	Kanchanpur	23.349290	87.227910
		BAHR/EC/111	BNK(N)/BJ/ECT/	Borjora	Sitla	Baherakhoia	23.373540	87.251210
Eucalyptus hybrid	04	EKR/EH/45	BNK(N)/BJ/EH/1	Borjora	Sangrampur	Ekaria	23.340556	87.242861
		EKR/EH/50	BNK(N)/BJ/EH/2	Borjora	Sangrampur	Ekaria	23.34046	87.24323
		EKR/EH/68	BNK(N)/BJ/EH/3	Borjora	Sangrampur	Ekaria	23.340722	87.243083
		EKR/EH/90	BNK(N)/BJ/EH/4	Borjora	Sangrampur	Ekaria	23.340917	87.243167

2.B Bankura (South) Division

In Bankura (S), only 8 plus trees of 3 species were there along with 67 candidate plus trees of 24 species (2.B.1). Table 2.B.2 and 2.B.3 showed the location details of plus trees and candidate plus trees respectively.

Table. 2.B.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Bankura (S) Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	00	01
2.	*Adina cordifolia*	00	01
3.	*Alstonia scholaris*	00	04
4.	*Anogeissus latifolia*	00	02
5.	*Azadirachta indica*	00	01
6.	*Bombax ceiba*	00	04
7.	*Buchanania cochinchinensis*	00	06
8.	*Cassia siamea*	00	01
9.	*Cleistanthus collinus*	00	01
10.	*Diospyros melanoxylon*	00	02
11.	*Eucalyptus citriodora*	00	02
12.	*Eucalyptus hybrid*	00	01
13.	*Gmelina arborea*	00	01
14.	*Lagerstroemia parviflora*	00	02
15.	*Pterocarpus marsupium*	03	06
16.	*Pterocarpus santalinus*	00	02
17.	*Schleichera oleosa*	00	01
18.	*Schleichera trijuga*	00	01
19.	*Shorea robusta*	00	06
20.	*Soymida febrifuga*	00	04
21.	*Terminalia alata*	03	07
22.	*Tectona grandis*	00	02
23.	*Terminalia bellirica*	02	05
24.	*Terminalia chebula*	00	04
	Total	**8**	**67**

Table 2.B.2 Location Details of Screened Plus Trees in Bankura (S) Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Terminalia alata	03	SUTA/TA/1	BNK(S)/JM/TA/1(P)	Jhilimili	Muchikata	Sutan	22.814770	86.726230
		JHIL/TA/2	BNK(S)/JM/TA/2(P)	Jhilimili	Jhilimili	Jhilimili	22.820467	86.632700
		BNK(S)/JM/ TA/1	BNK(S)/JM/TA/3(P)	Jhilimili	Jhilimili	Jhilimili	22.820017	86.632717
Pterocarpus marsupium	03	RANI/PM/2	BNK(S)/RB/PM/1(P)	Ranibandh	Ranibandh	Ranibandh	86.789460	22.873070
		HIRB/PM/3	BNK(S)/IP/PM/2(P)	Indpur	Hirbandh	Hirbandh	23.052420	86.816190
		SUTA/PM/1	BNK(S)/JM/PM/3(P)	Jhilimili	Muchikata	Sutan	22.815290	86.725870
Terminalia bellirica	02	RANI/TB/1	BNK(S)/JM/TB/1(P)	Ranibandh	Ranibandh	Ranibandh	22.873520	86.790080
		SUTA/TB/6	BNK(S)/JM/TB/2(P)	Jhilimili	Muchikata	Sutan	**22.814267**	**86.726117**

Table 2.B.3 Location Details of Screened Candidate Plus Trees in Bankura (S) Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	01	BNK(S)/HB/AA/1	BNK(S)/HB/AA/1	Hirabandh	Hirabandh	Hirabandh	23.062967	86.881733
Adina cordifolia	01	RAN/AC/1	BNK(S)/RB/AC/2	Ranibandh	Ranibandh	Ranibandh	22.873950	86.786500
Alstonia scholaris	04	BNK(S)/KT/AS/1	BNK(S)/KT/AS/1	Khatra	Khatra	Khatra 1	22.954650	86.819217
		BNK(S)/KT/AS/2	BNK(S)/KT/AS/2	Khatra	Khatra	Khatra 1	22.954817	86.819233
		BNK(S)/SP/AS/3	BNK(S)/SP/AS/3	Simlapal	Simlapal	Simlapal	22.910767	87.073517
		BNK(S)/SP/AS/4	BNK(S)/SP/AS/4	Simlapal	Simlapal	Simlapal	22.911183	87.073083
Anogeissus latifolia	02	BNK(S)/RB/AL/1	BNK(S)/RB/AL/1	Ranibandh	Ranibandh	Ranibandh	22.873617	86.789150
		SUTA/AL/1	BNK(S)/JHIL/AL/2	Jhilimili	Jhilimili	Muchikata	22.811950	86.727917
Azadirachta indica	01	SUTA/AI/1	BNK(S)/JM/AI/1	Jhilimili	Muchikata	Sutan	22.812780	86.728470
Bombax ceiba	04	BATH/BC/1	BNK(S)/RB/BC/1	Ranibandh	Ambikanagar	Bethala	22.871510	86.739180
		BATH/BC/2	BNK(S)/RB/BC/2	Ranibandh	Ambikanagar	Bethala	22.871520	86.739320
		BATH/BC/5	BNK(S)/RB/BC/3	Ranibandh	Ambikanagar	Bethala	22.871660	86.739790
		BATH/BC/6	BNK(S)/RB/BC/4	Ranibandh	Ambikanagar	Bethala	22.871733	86.740150
Buchanania cochinchinensis	06	JHIL/BL/1	BNK(S)/JM/BCC/1	Jhilimili	Jhilimili	Jhilimili	22.816450	86.633890
		JHIL/BL/2	BNK(S)/JM/BCC/2	Jhilimili	Jhilimili	Jhilimili	22.816410	86.634120
		JHIL/BL/5	BNK(S)/JM/BCC/3	Jhilimili	Jhilimili	Jhilimili	22.819517	86.633150
		RANI/BL/1	BNK(S)/JM/BCC/4	Ranibandh	Ranibandh	Ranibandh	22.873633	86.789317
		RANI/BL/2	BNK(S)/JM/BCC/5	Ranibandh	Ranibandh	Ranibandh	22.873833	86.788867
		BNK(S)/JM/BC/1	BNK(S)/JM/BCC/6	Jhilimili	Jhilimili	Jhilimili	22.819200	86.633967
Cassia siamea	01	RANI/CS/5	BNK(S)/RB/CS/1	Ranibandh	Ranibandh	Ranibandh	22.873330	86.790190

Cleistanthus collinus	01	SUTA/CC/1	BNK(S)/JM/CC/1	Jhilimili	Muchikata	Sutan	22.813150	86.728010
Diospyros melanoxylon	02	SUTA/DM/3	BNK(S)/JM/DM/1	Jhilimili	Muchikata	Sutan	22.813683	86.726883
		BNK(S)/JM/DM/1	BNK(S)/JM/DM/2	Jhilimili	Jhilimili	Jhilimili	22.819033	86.634100
Eucalyptus citriodora	02	HATI/EC/1	BNK(S)/IP/EC/1	Indpur	Uparhir	Hatirampur	23.063770	86.881070
		HATI/EC/2	BNK(S)/IP/EC/2	Indpur	Uparhir	Hatirampur	23.06378	86.881100
Eucalyptus hybrid	01	BNK(S)/HB/EH/1	BNK(S)/HB/EH/1	Hirabandh	Hirabandh	Hirabandh	23.062533	86.881583
Gmelina arborea	01	BNK(S)/FK/GA/1	BNK(S)/FK/GA/1	Fulkushma	Fulkushma	Fulkushma	22.711567	86.861233
Lagerstroemia parviflora	02	SUTA/LP/1	BNK(S)/JM/LP/1	Jhilimili	Muchikata	Sutan	22.814167	86.728867
		SUTA/LP/2	BNK(S)/JM/LP/2	Jhilimili	Muchikata	Sutan	22.813167	86.729083
Pterocarpus marsupium	06	HIRB/PM/1	BNK(S)/IP/PM/1	Indpur	Hirbandh	Hirbandh	23.052820	86.816240
		HIRB/PM/2	BNK(S)/IP/PM/2	Indpur	Hirbandh	Hirbandh	23.052660	86.816120
		RANI/PM/1	BNK(S)/RB/PM/3	Ranibandh	Ranibandh	Ranibandh	22.873150	86.789080
		RANI/PM/3	BNK(S)/RB/PM/4	Ranibandh	Ranibandh	Ranibandh	22.873060	86.789470
		RANI/PM/4	BNK(S)/RB/PM/5	Ranibandh	Ranibandh	Ranibandh	22.873180	86.789930
		SUTA/PM/2	BNK(S)/JM/PM/6	Jhilimili	Muchikata	Sutan	22.813600	86.723760
Pterocarpus santalinus	02	BNK(S)/HB/ PS/1	BNK(S)/HB/PS/1	Hirabandh	Hirabandh	Hirabandh	23.055567	86.893033
		BNK(S)/HB/ PS/2	BNK(S)/HB/PS/2	Hirabandh	Hirabandh	Hirabandh	23.054050	86.892883
Schleichera oleosa	01	BNK(S)/HB/ SO/1	BNK(S)/HB/SO/1	Hirabandh	Hirabandh	Hirabandh	23.050300	86.881000
Schleichera trijuga	01	SUTA/ST/1	BNK(S)/JM/ST/1	Jhilimili	Muchikata	Jhilimili	22.81691	86.63303
Shorea robusta	06	HIRB/SR/1	BNK(S)/IP/SR/1	Indpur	Hirbandh	Hirbandh	23.052780	86.816390
		HIRB/SR/2	BNK(S)/IP/SR/2	Indpur	Hirbandh	Hirbandh	23.052810	86.816200
		JHIL/SR/1	BNK(S)/JM/SR/3	Jhilimili	Jhilimili	Jhilimili	22.816670	86.933400
		JHIL/SR/2	BNK(S)/JM/SR/4	Jhilimili	Jhilimili	Jhilimili	22.819510	86.633250
		SUTA/SR/2	BNK(S)/JM/SR/5	Jhilimili	Muchikata	Sutan	22.814080	86.728060
		SUTA/SR/3	BNK(S)/JM/SR/6	Jhilimili	Muchikata	Sutan	22.814880	86.726800
Soymida febrifuga	04	RANI/SF/1	BNK(S)/RB/SF/1	Ranibandh	Ranibandh	Ranibandh	22.872860	86.791650
		RAN/SF/2	BNK(S)/JM/SF/2	Ranibandh	Ranibandh	Ranibandh	22.873167	86.791500
		RAN/SF/3	BNK(S)/JM/SF/3	Ranibandh	Ranibandh	Ranibandh	22.873250	86.791617
		SUTA/SF/1	BNK(S)/JM/SF/4	Jhilimili	Muchikata	Sutan	22.814140	86.728140
Tectona grandis	02	RANI/TG/2	BNK(S)/RB/TG/1	Ranibandh	Ranibandh	Ranibandh	22.873740	86.787470
		BNK(S)/HB/ TG/1	BNK(S)/HB/TG/2	Hirabandh	Hirabandh	Hirabandh	23.053067	86.815050
Terminalia alata	07	JHIL/TA/1	BNK(S)/JM/TA/1	Jhilimili	Jhilimili	Jhilimili	22.816610	86.633230
		JHIL/TA/3	BNK(S)/JM/TA/2	Jhilimili	Jhilimili	Jhilimili	22.816570	86.633220
		JHIL/TA/4	BNK(S)/JM/TA/3	Jhilimili	Jhilimili	Jhilimili	22.81650	86.633790
		JHIL/TA/5	BNK(S)/JM/TA/4	Jhilimili	Jhilimili	Jhilimili	22.816220	86.633880
		JHIL/TA/6	BNK(S)/JM/TA/5	Jhilimili	Jhilimili	Jhilimili	22.816200	86.816200
		SUTA/TA/2	BNK(S)/JM/TA/6	Jhilimili	Muchikata	Sutan	22.814760	86.726680
		BNK(S)/JM/ TA/2	BNK(S)/JM/TA/7	Jhilimili	Jhilimili	Jhilimili	22.819683	86.632183

Terminalia bellirica	05	HIRB/TB/1	BNK(S)/IP/TB/1	Indpur	Hirbandh	Hirbandh	23.052940	86.816050
		JHIL/TB/1	BNK(S)/JM/TB/2	Jhilimili	Jhilimili	Jhilimili	22.817060	86.634220
		RANI/TB/2	BNK(S)/RB/TB/3	Ranibandh	Ranibandh	Ranibandh	22.873510	86.790170
		SUTA/TB/1	BNK(S)/RB/TB/4	Jhilimili	Muchikata	Sutan	22.814230	86.726150
		SUTA/TB/2	BNK(S)/JM/TB/5	Jhilimili	Muchikata	Sutan	22.815310	86.725860
Terminalia chebula	04	SUTA/TC/1	BNK(S)/JM/TC/1	Jhilimili	Muchikata	Sutan	22.814190	86.726190
		SUTA/TC/2	BNK(S)/JM/TC/2	Jhilimili	Muchikata	Sutan	22.815160	86.725870
		SUTA/TC/3	BNK(S)/JM/TC/3	Jhilimili	Muchikata	Sutan	22.81511	86.72593
		BNK(S)/RB/ TC/1	BNK(S)/RB/TC/4	Ranibandh	Ranibandh	Ranibandh	22.873600	86.784700

2.C Birbhum Division

In Birbhum Division ,01 tree have been marked as plus tree and 5 trees have been marked as candidate plus trees, as presented in Table 2.C.1 alongwith details in Table 2.C.2 and 2.C.3

Table. 2.C.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Birbhum Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	01	05

Table 2.C.2 Location Details of Screened Plus Trees in Birbhum Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	01	TAJP/AA/1	**BIR/MD/AA/1(P)**	MD Bazar	Nischintapur	Tajpur	23.689083	87.676833

Table 2.C.3 Location Details of Screened Candidate Plus Trees in Birbhum Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	05	GOAL/AA/1	BIR/BOL/AA/1	Bolpur	Ballavpur WLS	Goalpara	23.687139	87.676028
		GOAL/AA/2	BIR/BOL/AA/2	Bolpur	Ballavpur WLS	Goalpara	23.687083	87.675944
		GOAL/AA/3	BIR/BOL/AA/3	Bolpur	Ballavpur WLS	Goalpara	23.687944	87.675806
		GOAL/AA/4	BIR/BOL/AA/4	Bolpur	Ballavpur WLS	Goalpara	23.688444	87.676028
		GOAL/AA/5	BIR/BOL/AA/5	Bolpur	Ballavpur WLS	Goalpara	23.688778	87.676722

2. D Burdwan Division

In Burdwan division, 6 trees have been marked as plus trees (1) and candidate plus trees (5), as presented in Table 2.D.1 along with location details in Table 2.D.2 and 2.D.3.

Table. 2.D.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Burdwan Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	01	05
	Total	**01**	**05**

Table 2.D.2 Location Details of Screened Plus Trees in Burdwan Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	01	CORA/AA/1	BW/GK/AA/ 1(P)	Ghushkura	Aushgram	Karatiya mouja	23.687139	87.676028

Table 2.D.3 Location Details of Screened Candidate Plus Trees in Burdwan Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	05	CORA/AA/2	BW/GK/AA/ 1	Ghushkura	Aushgram	Karatiya mouja	23.500500	87.649017
		CORA/AA/3	BW/GK/AA/2	Ghushkura	Aushgram	Karatiya mouja	23.500850	87.648933
		CORA/AA/4	BW/GK/AA/3	Ghushkura	Aushgram	Karatiya mouja	23.500967	87.649100
		CORA/AA/5	BW/GK/AA/4	Ghushkura	Aushgram	Karatiya mouja	23.501167	87.649333
		CORA/AA/6	BW/GK/AA/5	Ghushkura	Aushgram	Karatiya mouja	23.501450	87.649533

2.E Jhargram Division

In South Circle, maximum trees have been screened in Jhargram Division. 24 plus trees and 144 candidate plus trees of 19 different species have been marked in the division (table 2.E.1) along with the geo-referred co-ordinates (Table 2.E.2 & 2.E.3).

Table. 2.E.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Jhargram Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	01	06
2.	*Acacia mangium*	03	06
3.	*Adina cordifolia*	00	01
4.	*Azadirachta indica*	00	02
5.	*Bombax ceiba*	00	02
6.	*Cassia siamea*	00	01
7.	*Dalbergia sissoo*	00	02
8.	*Emblica officinalis*	04	18
9.	*Eucalyptus camaldulensis*	00	01
10.	*Eucalyptus hybrid*	02	12
11.	*Gmelina arborea*	00	01
12.	*Haldina cordifolia*	00	02
13.	*Madhuca latifolia*	00	02
14.	*Pterocarpus marsupium*	00	04
15.	*Shorea robusta*	00	03
16.	*Tectona grandis*	00	02
17.	*Terminalia alata*	12	72
18.	*Terminalia arjuna*	02	06
19.	*Terminalia bellirica*	00	01
	Total	**24**	**144**

Table 2.E.2 Location Details of Screened Plus Trees in Jhargram Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	01	NNG/AA/3	JG/JG/AA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44442	86.98286
Acacia mangium	03	NNG/AM/15	JG/JG/AM/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44443	86.98344
		JG/SL/AM/1	JG/SL/AM/2(P)	Silda	Binpur	Binpur	22.562150	86.911400
		JG/SL/AM/2	JG/SL/AM/2(P)	Silda	Binpur	Binpur	22.694317	86.700917
Eucalyptus hybrid	02	MNK/EH/3	JG/MP/EH/1(P)	Manikpara	Manikpara	Lalitasole	22.364197	87.122283
		MNK/EH/13	JG/MP/EH/2(P)	Manikpara	Manikpara	Lalitasole	22.363847	87.122069
Emblica officinalis	04	NNGR/EO/2	JG/JG/EO/1(P)	Jhargram	Jhargram	Bandarbhoia	22.442020	86.98422
		NNGR/EO/9	JG/JG/EO/2(P)	Jhargram	Jhargram	Bandarbhoia	22.44223	86.98471
		NNGR/EO/16	JG/JG/EO/3(P)	Jhargram	Jhargram	Bandarbhoia	22.4426	86.9851
		JG/MP/EO/1	JG/MP/EO/4(P)	Manikpara	Buribhasa	Buribhasa	22.345083	87.117583
Terminalia alata	12	**NNGR/TA/4**	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.4427	86.98346
		NNGR/TA/5	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44302	86.98355
		NNGR/TA/8	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44319	86.98371
		NNGR/TA/29	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44563	86.98558
		NNGR/TA/31	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44531	86.98539
		NNGR/TA/44	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44301	86.9834
		NNGR/TA/46	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44305	86.98315
		NNGR/TA/51	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44351	86.98327
		NNGR/TA/56	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44365	86.98367
		NNGR/TA/57	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44361	86.98383
		NNGR/TA/62	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.4433	86.98414
		NNGR/TA/69	JG/JG/TA/1(P)	Jhargram	Bandarbhoia	Nunnungeria	22.44314	86.98372
Terminalia arjuna	02	KKJR/Tar/18	JG/JG/TAR/1(P)	Jhargram	Kakrajhore	Kakrajhore	22.44118	86.98259
		NNGR/Tar/5	JG/JG/TAR/2(P)	Jhargram	Bandarbhola	Nunnungeris	22.44099	86.98343

Table 2.E.3 Location Details of Screened Candidate Plus Trees in Jhargram Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	06	NNGR/AA/25	JG/JG/AA/1	Jhargram	Bandarbhoia	Nunnungeria	22.44433	86.98369
		NNGR/AA/26	JG/JG/AA/2	Jhargram	Bandarbhoia	Nunnungeria	22.44498	86.98347
		NNGR/AA/31	JG/JG/AA/3	Jhargram	Bandarbhoia	Nunnungeria	22.44483	86.98361
		NNGR/AA/32	JG/JG/AA/4	Jhargram	Bandarbhoia	Nunnungeria	22.44483	86.98364
		NNGR/AA/30	JG/JG/AA/5	Jhargram	Bandarbhoia	Nunnungeria	22.44484	86.98365
		NNGR/AA/27	JG/JG/AA/6	Jhargram	Bandarbhoia	Nunnungeria	22.44475	86.98347
Adina cordifolia	01	JG/MP/AC/1	JG/MP/AC/1	Manikpara	Kusumghati	Kusumghati	22.382400	87.118300
Azadirachta indica	02	JG/GD/AI/1	JG/GD/AI/1	Gidni	Gidni	G Compound	22.493000	86.846033
		JG/GD/AI/2	JG/GD/AI/2	Gidni	Gadrasol	Gadrasole	22.405733	86.854317
Acacia mangium	06	NNG/AM/5	JG/JG/AM/1	Jhargram	Bandarbhoia	Nunnungeria	22.44425	86.98301
		NNG/AM/7	JG/JG/AM/2	Jhargram	Bandarbhoia	Nunnungeria	22.44415	86.98308
		NNG/AM/8	JG/JG/AM/3	Jhargram	Bandarbhoia	Nunnungeria	22.44414	86.98315
		NNG/AM/21	JG/JG/AM/4	Jhargram	Bandarbhoia	Nunnungeria	22.44454	86.98357
		NNG/AM/25	JG/JG/AM/5	Jhargram	Bandarbhoia	Nunnungeria	22.44456	86.98373
		NNG/AM/30	JG/JG/AM/6	Jhargram	Bandarbhoia	Nunnungeria	22.44453	86.98377
Bombax ceiba	02	JG/BV/BC/1	JG/BV/BC/1	Bhulaveda	Bhulaveda	Bhulaveda	22.694133	86.700500
		JG/BV/BC/2	JG/BV/BC/2	Bhulaveda	Bhulaveda	Bhulaveda	22.694333	86.700750
Cassia siamea	01	JG/GD/CS/1	JG/GD/CS/1	Gidni	Gadrasol	Gadrasol	22.405600	86.854550
Dalbergia sissoo	02	NNGR/SD/1	JG/JG/DS/1	Jhargram	Bandarbhoia	Nunnungeria	22.44176	86.9845
		NNGR/SD/5	JG/JG/DS/2	Jhargram	Bandarbhoia	Nunnungeria	22.44267	86.98496
Eucalyptus camaldulensis	01	JG/SL/EC/1	JG/SL/EC/1	Silda	Binpur	Binpur	22.561850	86.912750
Eucalyptus hybrid	12	MNK/EH/1	JG/MP/EH/1	Manikpara	Manikpara	Lalitasole	22.364419	87.122181
		MNK/EH/2	JG/MP/EH/2	Manikpara	Manikpara	Lalitasole	22.364325	87.122200
		MNK/EH/4	JG/MP/EH/3	Manikpara	Manikpara	Lalitasole	22.364206	87.122261
		MNK/EH/8	JG/MP/EH/4	Manikpara	Manikpara	Lalitasole	22.364608	87.122400
		MNK/EH/9	JG/MP/EH/5	Manikpara	Manikpara	Lalitasole	22.364400	87.122081
		MNK/EH/12	JG/MP/EH/6	Manikpara	Manikpara	Lalitasole	22.363994	87.121839
		MNK/EH/16	JG/MP/EH/7	Manikpara	Manikpara	Lalitasole	22.363014	87.120811
		MNK/EH/28	JG/MP/EH/8	Manikpara	Manikpara	Lalitasole	22.362958	87.121431
		MNK/EH/30	JG/MP/EH/9	Manikpara	Manikpara	Lalitasole	22.362978	87.121519
		MNK/EH/31	JG/MP/EH/10	Manikpara	Manikpara	Lalitasole	22.362894	87.121539
		MNK/EH/32	JG/MP/EH/11	Manikpara	Manikpara	Lalitasole	22.362897	87.121511
		MNK/EH/38	JG/MP/EH/12	Manikpara	Manikpara	Lalitasole	22.362933	87.122000

Emblica officinalis	18	NNGR/EO/1	JG/JG/EO/1	Jhargram	Jhargram	Bandarbhoia	22.4417000	86.98415
		NNGR/EO/3	JG/JG/EO/2	Jhargram	Jhargram	Bandarbhoia	22.441970	86.98432
		NNGR/EO/4	JG/JG/EO/3	Jhargram	Jhargram	Bandarbhoia	22.4187	86.98462
		NNGR/EO/5	JG/JG/EO/4	Jhargram	Jhargram	Bandarbhoia	22.44186	86.98464
		NNGR/EO/6	JG/JG/EO/5	Jhargram	Jhargram	Bandarbhoia	22.44195	86.98467
		NNGR/EO/7	JG/JG/EO/6	Jhargram	Jhargram	Bandarbhoia	22.44207	86.98422
		NNGR/EO/8	JG/JG/EO/7	Jhargram	Jhargram	Bandarbhoia	22.44221	86.98476
		NNGR/EO/10	JG/JG/EO/8	Jhargram	Jhargram	Bandarbhoia	22.44231	86.98431
		NNGR/EO/11	JG/JG/EO/9	Jhargram	Jhargram	Bandarbhoia	22.44234	86.98427
		NNGR/EO/12	JG/JG/EO/10	Jhargram	Jhargram	Bandarbhoia	22.4424	86.9843
		NNGR/EO/13	JG/JG/EO/11	Jhargram	Jhargram	Bandarbhoia	22.44258	86.98474
		NNGR/EO/14	JG/JG/EO/12	Jhargram	Jhargram	Bandarbhoia	22.44257	86.98483
		NNGR/EO/17	JG/JG/EO/13	Jhargram	Jhargram	Bandarbhoia	22.44262	86.98514
		NNGR/EO/18	JG/JG/EO/14	Jhargram	Jhargram	Bandarbhoia	22.44287	86.98518
		NNGR/EO/19	JG/JG/EO/15	Jhargram	Jhargram	Bandarbhoia	22.44282	86.98514
		NNGR/EO/20	JG/JG/EO/16	Jhargram	Jhargram	Bandarbhoia	22.44306	86.98482
		NNGR/EO/21	JG/JG/EO/17	Jhargram	Jhargram	Bandarbhoia	22.44306	86.98482
		NNGR/EO/22	JG/JG/EO/18	Jhargram	Jhargram	Bandarbhoia	22.44341	86.98457
Gmelina arborea	01	JG/GD/GA/1	JG/GD/GA/1	Gidni	Gidni	Gidni	22.492383	86.846283
Holdina cordifolia	02	JG/SL/HC/1	JG/SL/HC/1	Silda	Enthela	Enthela	22.638883	86.843383
		JG/BV/HC/2	JG/BV/HC/2	Bhulaveda	Bhulaveda	Bhulaveda	22.694350	86.700350
Madhuca latifolia	02	JG/SL/ML/1	JG/SL/ML/1	Silda	Binpur	Binpur	22.562083	86.912050
		JG/JB/ML/2	JG/JB/ML/2	Jamboni	Chichira	Chichera	22.306567	86.883250
Pterocarpus marsupium	04	JG/SL/PM/1	JG/SL/PM/1	Silda	Enthela	Enthela	22.639500	86.843117
		JG/BV/PM/2	JG/BV/PM/2	Bhulaveda	Bhulaveda	Bhulaveda	22.694117	86.700350
		JG/JB/PM/3	JG/JM/PM/3	Jamboni	Chichera	Chichera	22.305917	86.883567
		JG/MP/PM/4	JG/MP/PM/4	Manikpara	Balibhasa	Balibhasa	22.345050	87.118483
Shorea robusta	03	JG/SL/SR/1	JG/SL/SR/1	Silda	Binpur	Binpur	22.628933	86.911633
		JG/BV/SR/2	JG/BV/SR/2	Bhulaveda	Bhulaveda	Bhulaveda	22.694000	86.700883
		JG/KS/SR/3	JG/KS/SR/3	Kanaisol	Kanaisol	Kanaisol	22.479283	86.858817
Tectona grandis	02	JG/GD/TG/1	JG/GD/TG/1	Gidni	Gidni	G Compound	22.492333	86.846367
		JG/JB/TG/2	JG/JB/TG/2	Jamboni	Chichera	Chichera	22.306367	86.883450
Terminalia alata	72	**NNGR/TA/1**	JG/JG/TA/1	Jhargram	Bandarbhoia	Nunnungeria	22.44615	86.98544
		NNGR/TA/2	JG/JG/TA/2	Jhargram	Bandarbhoia	Nunnungeria	22.4457	86.98463
		NNGR/TA/3	JG/JG/TA/3	Jhargram	Bandarbhoia	Nunnungeria	22.44543	86.98516
		NNGR/TA/6	JG/JG/TA/5	Jhargram	Bandarbhoia	Nunnungeria	22.44348	86.98375
		NNGR/TA/7	JG/JG/TA/6	Jhargram	Bandarbhoia	Nunnungeria	22.44334	86.98369
		NNGR/TA/10	JG/JG/TA/7	Jhargram	Bandarbhoia	Nunnungeria	22.44235	86.98389

		NNGR/TA/1	JG/JG/TA/8	Jhargram	Bandarbhoia	Nunnungeria	22.44621	86.98556
		NNGR/TA/2	JG/JG/TA/9	Jhargram	Bandarbhoia	Nunnungeria	22.44618	86.98537
		NNGR/TA/3	JG/JG/TA/10	Jhargram	Bandarbhoia	Nunnungeria	22.44611	86.98536
		NNGR/TA/4	JG/JG/TA/11	Jhargram	Bandarbhoia	Nunnungeria	22.44623	86.98518
		NNGR/TA/5	JG/JG/TA/12	Jhargram	Bandarbhoia	Nunnungeria	22.44615	86.98521
		NNGR/TA/9	JG/JG/TA/13	Jhargram	Bandarbhoia	Nunnungeria	22.44584	86.98482
		NNGR/TA/10	JG/JG/TA/14	Jhargram	Bandarbhoia	Nunnungeria	22.44567	86.98482
		NNGR/TA/11	JG/JG/TA/15	Jhargram	Bandarbhoia	Nunnungeria	22.44556	86.98488
		NNGR/TA/12	JG/JG/TA/16	Jhargram	Bandarbhoia	Nunnungeria	22.44554	86.98487
		NNGR/TA/13	JG/JG/TA/17	Jhargram	Bandarbhoia	Nunnungeria	22.44575	86.985
		NNGR/TA/14	JG/JG/TA/18	Jhargram	Bandarbhoia	Nunnungeria	22.44555	86.98497
		NNGR/TA/15	JG/JG/TA/19	Jhargram	Bandarbhoia	Nunnungeria	22.44557	86.98517
		NNGR/TA/16	JG/JG/TA/20	Jhargram	Bandarbhoia	Nunnungeria	22.44577	86.98525
		NNGR/TA/17	JG/JG/TA/21	Jhargram	Bandarbhoia	Nunnungeria	22.44582	86.98527
		NNGR/TA/18	JG/JG/TA/22	Jhargram	Bandarbhoia	Nunnungeria	22.44589	86.98527
		NNGR/TA/19	JG/JG/TA/23	Jhargram	Bandarbhoia	Nunnungeria	22.44591	86.98579
		NNGR/TA/20	JG/JG/TA/24	Jhargram	Bandarbhoia	Nunnungeria	22.44593	86.98525
		NNGR/TA/21	JG/JG/TA/25	Jhargram	Bandarbhoia	Nunnungeria	22.44584	86.98527
		NNGR/TA/22	JG/JG/TA/26	Jhargram	Bandarbhoia	Nunnungeria	22.44602	86.98544
		NNGR/TA/23	JG/JG/TA/27	Jhargram	Bandarbhoia	Nunnungeria	22.44584	86.98527
		NNGR/TA/24	JG/JG/TA/28	Jhargram	Bandarbhoia	Nunnungeria	22.44604	86.98551
		NNGR/TA/25	JG/JG/TA/29	Jhargram	Bandarbhoia	Nunnungeria	22.44599	86.9858
		NNGR/TA/26	JG/JG/TA/30	Jhargram	Bandarbhoia	Nunnungeria	22.44609	86.98598
		NNGR/TA/27	JG/JG/TA/31	Jhargram	Bandarbhoia	Nunnungeria	22.44562	86.98612
		NNGR/TA/28	JG/JG/TA/32	Jhargram	Bandarbhoia	Nunnungeria	22.44558	86.98569
		NNGR/TA/30	JG/JG/TA/33	Jhargram	Bandarbhoia	Nunnungeria	22.44563	86.98558
		NNGR/TA/32	JG/JG/TA/34	Jhargram	Bandarbhoia	Nunnungeria	22.44534	86.98522
		NNGR/TA/33	JG/JG/TA/35	Jhargram	Bandarbhoia	Nunnungeria	22.44534	86.98522
		NNGR/TA/34	JG/JG/TA/36	Jhargram	Bandarbhoia	Nunnungeria	22.44547	86.98497
		NNGR/TA/35	JG/JG/TA/37	Jhargram	Bandarbhoia	Nunnungeria	22.44546	86.98471
		NNGR/TA/36	JG/JG/TA/38	Jhargram	Bandarbhoia	Nunnungeria	22.44554	86.9847
		NNGR/TA/37	JG/JG/TA/39	Jhargram	Bandarbhoia	Nunnungeria	22.44535	86.98476
		NNGR/TA/38	JG/JG/TA/40	Jhargram	Bandarbhoia	Nunnungeria	22.44556	86.98458
		NNGR/TA/39	JG/JG/TA/41	Jhargram	Bandarbhoia	Nunnungeria	22.44535	86.98476
		NNGR/TA/40	JG/JG/TA/42	Jhargram	Bandarbhoia	Nunnungeria	22.44528	86.98474
		NNGR/TA/41	JG/JG/TA/43	Jhargram	Bandarbhoia	Nunnungeria	22.44524	86.98466
		NNGR/TA/47	JG/JG/TA/44	Jhargram	Bandarbhoia	Nunnungeria	22.44316	86.98324
		NNGR/TA/48	JG/JG/TA/45	Jhargram	Bandarbhoia	Nunnungeria	22.44342	86.98308

		NNGR/TA/49	JG/JG/TA/46	Jhargram	Bandarbhoia	Nunnungeria	22.44369	86.98329
		NNGR/TA/50	JG/JG/TA/47	Jhargram	Bandarbhoia	Nunnungeria	22.44378	86.98337
		NNGR/TA/52	JG/JG/TA/48	Jhargram	Bandarbhoia	Nunnungeria	22.44327	86.98333
		NNGR/TA/54	JG/JG/TA/49	Jhargram	Bandarbhoia	Nunnungeria	2.44343	86.9835
		NNGR/TA/55	JG/JG/TA/50	Jhargram	Bandarbhoia	Nunnungeria	22.4435	86.98358
		NNGR/TA/58	JG/JG/TA/51	Jhargram	Bandarbhoia	Nunnungeria	22.4434	86.98393
		NNGR/TA/59	JG/JG/TA/52	Jhargram	Bandarbhoia	Nunnungeria	22.44338	86.98405
		NNGR/TA/61	JG/JG/TA/53	Jhargram	Bandarbhoia	Nunnungeria	22.44323	86.9842
		NNGR/TA/63	JG/JG/TA/54	Jhargram	Bandarbhoia	Nunnungeria	22.44307	86.98403
		NNGR/TA/64	JG/JG/TA/55	Jhargram	Bandarbhoia	Nunnungeria	22.44305	86.98396
		NNGR/TA/65	JG/JG/TA/56	Jhargram	Bandarbhoia	Nunnungeria	22.44325	86-893890
		NNGR/TA/66	JG/JG/TA/57	Jhargram	Bandarbhoia	Nunnungeria	22.44329	86.98393
		NNGR/TA/67	JG/JG/TA/58	Jhargram	Bandarbhoia	Nunnungeria	22.44342	86.98385
		NNGR/TA/68	JG/JG/TA/59	Jhargram	Bandarbhoia	Nunnungeria	22.44323	86.9842
		NNGR/TA/70	JG/JG/TA/60	Jhargram	Bandarbhoia	Nunnungeria	22.443	86.98363
		NNGR/TA/72	JG/JG/TA/61	Jhargram	Bandarbhoia	Nunnungeria	22.44262	86.98383
		NNGR/TA/73	JG/JG/TA/62	Jhargram	Bandarbhoia	Nunnungeria	22.44258	86.98377
		NNGR/TA/74	JG/JG/TA/63	Jhargram	Bandarbhoia	Nunnungeria	22.44274	86.98376
		NNGR/TA/76	JG/JG/TA/64	Jhargram	Bandarbhoia	Nunnungeria	22.44249	86.98388
		NNGR/TA/77	JG/JG/TA/65	Jhargram	Bandarbhoia	Nunnungeria	22.44248	86.98391
		NNGR/TA/78	JG/JG/TA/66	Jhargram	Bandarbhoia	Nunnungeria	22.44255	86.98383
		NNGR/TA/81	JG/JG/TA/67	Jhargram	Bandarbhoia	Nunnungeria	22.44226	86.98394
		NNGR/TA/84	JG/JG/TA/68	Jhargram	Bandarbhoia	Nunnungeria	22.44244	86.9836
		NNGR/TA/85	JG/JG/TA/69	Jhargram	Bandarbhoia	Nunnungeria	22.44219	86.98372
		NNGR/TA/87	JG/JG/TA/70	Jhargram	Bandarbhoia	Nunnungeria	22.4422	86.98376
		NNGR/TA/89	JG/JG/TA/71	Jhargram	Bandarbhoia	Nunnungeria	22.44209	86.98382
		NNGR/TA/90	JG/JG/TA/72	Jhargram	Bandarbhoia	Nunnungeria	22.44201	86.98389
Terminalia arjuna	06	NNGR/Tar/1	JG/JG/TAR/1	Jhargram	Jhargram	Kakrajhore	22.44102	86.98367
		KKJR/Tar/10	JG/JG/TAR/2	Jhargram	Jhargram	Kakrajhore	22.44118	86.98331
		KKJR/Tar/8	JG/JG/TAR/3	Jhargram	Jhargram	Kakrajhore	22.44119	86.98339
		KKJR/Tar/12	JG/JG/TAR/4	Jhargram	Jhargram	Kakrajhore	22.44104	86.98324
		KKJR/Tar/15	JG/JG/TAR/5	Jhargram	Jhargram	Kakrajhore	22.44109	86.98299
		KKJR/Tar/16	JG/JG/TAR/6	Jhargram	Jhargram	Kakrajhore	22.44123	86.98296
Terminalia bellerica	01	JG/SL/TB/1	JG/SL/TB/1	Silda	Binpur	Binpur	22.561717	86.912000

2.F Kangsawati (North)

In Kangsawati (N), 9 plus trees and 76 candidate plus trees of 16 species have been screened to be retained (Table 2.F.1).Geo-reffered co-ordinates were also recorded for the indivisual trees (Table 2.F.2 & 2.F.3).

Table. 2.F.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kangsawati (North) Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia mangium*	00	06
2.	*Adina cordifolia*	00	06
3.	*Ailanthus excelsa*	00	03
4.	*Ailanthus grandis*	00	02
5.	*Bombax ceiba*	00	01
6.	*Dalbergia sissoo*	03	04
7.	*Eucalyptus hybrid*	00	03
8.	*Gmelina arborea*	00	04
9.	*Holoptelea integrifolia*	00	06
10.	*Pongamia pinnata*	01	06
11.	*Pterocarpus marsupium*	02	10
12.	*Schleichera oleosa*	01	06
13.	*Shorea robusta*	01	06
14.	*Terminalia alata*	00	06
15.	*Terminalia arjuna*	00	01
16.	*Terminalia bellirica*	01	06
	Total	**09**	**76**

Table 2.F.2 Location Details of Screened Plus Trees in Kangsabati (North) Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Dalbergia sissoo	03	PIRR/DS/1	KSC(N)/PC/DS/1(P)	Puncha	Panipathar	Pirrah	23.172183	86.536750
		PIRR/DS/4	KSC(N)/PC/DS/2(P)	Puncha	Panipathar	Pirrah	23.15856	86.48487
		PIRR/DS/5	KSC(N)/PC/DS/3(P)	Puncha	Panipathar	Pirrah	23.16132	86.48168
Pongamia pinnata	01	PIRRA/PP/4	KSC(N)/PC/PP/1(P)	Puncha	Panipathar	Pirrah	23.172050	86.536300
Pterocarpus marsupium	02	DEOR/PM/2	KSC(N)/PC/PM/1(P)	Puncha	Panipathar	Deorang	23.158083	86.485133
		SURU/PM/2	KSC(N)/PR/PM/2(P)	Para	Surulia	Surulia	23.319200	86.395983
Schleichera oleosa	01	PIRRA/SO/10	KSC(N)/PC/SO/1(P)	Puncha	Panipathar	Pirrah	23.172883	86.538400
Shorea robusta	01	DEOR/SR/12	KSC(N)/PC/SR/1(P)	Puncha	Panipathar	Deorang	23.156317	86.487383
Terminalia bellirica	01	DEOR/TB/14	KSC(N)/PC/TB/1(P)	Puncha	Panipathar	Deorang	23.156667	86.487133

Table 2.F.3 Location Details of Screened Candidate Plus Trees in Kangsabati (North) Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia mangium	06	DEOR/AM/5	KSC(N)/PC/AM/1	Puncha	Panipathar	Deorang	23.158700	86.486550
		DEOR/AM/6	KSC(N)/PC/AM/2	Puncha	Panipathar	Deorang	23.158667	86.486433
		DEOR/AM/7	KSC(N)/PC/AM/3	Puncha	Panipathar	Deorang	23.158217	86.486383
		DEOR/AM/8	KSC(N)/PC/AM/4	Puncha	Panipathar	Deorang	23.158267	86.486867
		DEOR/AM/9	KSC(N)/PC/AM/5	Puncha	Panipathar	Deorang	23.158217	86.487250
		DEOR/AM/10	KSC(N)/PC/AM/6	Puncha	Panipathar	Deorang	23.158500	86.487000
Adina cordifolia	06	DEOR/AC/1	KSC(N)/PC/AC/1	Puncha	Panipathar	Deorang	23.157217	86.486583
		DEOR/AC/2	KSC(N)/PC/AC/2	Puncha	Panipathar	Deorang	23.156933	86.486717
		DEOR/AC/3	KSC(N)/PC/AC/3	Puncha	Panipathar	Deorang	23.156933	86.486717
		DEOR/AC/4	KSC(N)/PC/AC/4	Puncha	Panipathar	Deorang	23.156783	86.486783
		DEOR/AC/5	KSC(N)/PC/AC/5	Puncha	Panipathar	Deorang	23.156733	86.486967
		DEOR/AC/6	KSC(N)/PC/AC/6	Puncha	Panipathar	Deorang	23.156683	86.487050
Ailanthus excelsa	03	KURU/AE/1	KSC(N)/PC/AE/1	Puncha	Panipathar	Deorang	23.16977	86.53195
		KURU/AE/2	KSC(N)/PC/AE/2	Puncha	Panipathar	Deorang	23.17004	86.53242
		KURU/AE/3	KSC(N)/PC/AE/3	Puncha	Panipathar	Deorang	23.16981	86.53208
Ailanthus grandis	02	DEOR/AG/2	KSC(N)/PC/AG/1	Puncha	Panipathar	Deorang	23.158467	86.487450
		DEOR/AG/3	KSC(N)/PC/AG/2	Puncha	Panipathar	Deorang	23.162933	86.479817
Bombax ceiba	01	KSC(N)/PC/BC/1	KSC(N)/PC/BC/1	Puncha	Panipathar	Kenda	23.193800	86.523500
Eucalyptus hybrid	03	KSC(N)/PC/EH/1	KSC(N)/PC/EH/1	Puncha	Panipathar	Derong	23.094340	86.292160

		KSC(N)/PC/EH/2	KSC(N)/PC/EH/2	Puncha	Panipathar	Derong	23.157233	86.487583
		KSC(N)/PC/EH/3	KSC(N)/PC/EH/3	Puncha	Panipathar	Derong	23.156717	86.487550
Dalbergia sissoo	04	PIRR/DS/2	KSC(N)/PC/DS/1	Puncha	Panipathar	Pirrah	23.172350	86.536867
		PIRR/DS/3	KSC(N)/PC/DS/2	Puncha	Panipathar	Pirrah	23.172300	86.536700
		PIRR/DS/6	KSC(N)/PC/DS/3	Puncha	Panipathar	Pirrah	23.1599	86.48547
		PIRR/DS/7	KSC(N)/PC/DS/4	Puncha	Panipathar	Pirrah	23.15837	86.48476
Gmelina arborea	04	KEND/GA/1	KSC(N)/PC/GA/1	Puncha	Panipathar	Kenda	23.194033	86.523667
		KEND/GA/2	KSC(N)/PC/GA/2	Puncha	Panipathar	Kenda	23.194033	86.523667
		KEND/GA/3	KSC(N)/PC/GA/3	Puncha	Panipathar	Kenda	23.194000	86.523617
		KEND/GA/4	KSC(N)/PC/GA/4	Puncha	Panipathar	Kenda	23.194017	86.523750
Holoptelea integrifolia	06	HURA/HI/1	KSC(N)/HUR/HI/1	Hura	Keshargarh	Hurabadihi	23.26033	86.55583
		HURA/HI/2	KSC(N)/HUR/HI/2	Hura	Keshargarh	Hurabadihi	23.26035	86.55593
		HURA/HI/3	KSC(N)/HUR/HI/3	Hura	Keshargarh	Hurabadihi	23.26042	86.55592
		HURA/HI/4	KSC(N)/HUR/HI/4	Hura	Keshargarh	Hurabadihi	23.26035	86.55593
		HURA/HI/5	KSC(N)/HUR/HI/5	Hura	Keshargarh	Hurabadihi	23.26041	86.55615
		HURA/HI/6	KSC(N)/HUR/HI/6	Hura	Keshargarh	Hurabadihi	23.26037	86.55621
Pongamia pinnata	06	PIRRA/PP/1	KSC(N)/PC/PP/1	Puncha	Panipathar	Pirrah	23.172233	86.536533
		PIRRA/PP/2	KSC(N)/PC/PP/2	Puncha	Panipathar	Pirrah	23.172267	86.536567
		PIRRA/PP/3	KSC(N)/PC/PP/3	Puncha	Panipathar	Pirrah	23.172667	86.536417
		PIRRA/PP/5	KSC(N)/PC/PP/4	Puncha	Panipathar	Pirrah	23.172750	86.536700
		PIRRA/PP/7	KSC(N)/PC/PP/5	Puncha	Panipathar	Pirrah	23.172500	86.536667
		PIRRA/PP/8	KSC(N)/PC/PP/6	Puncha	Panipathar	Pirrah	23.172600	86.536817
Pterocarpus marsupium	10	DEOR/PM/3	KSC(N)/PC/PM/1	Puncha	Panipathar	Deorang	23.158000	86.499667
		DEOR/PM/4	KSC(N)/PC/PM/2	Puncha	Panipathar	Deorang	23.158150	86.485000
		DEOR/PM/5	KSC(N)/PC/PM/3	Puncha	Panipathar	Deorang	23.156650	86.484717
		DEOR/PM/7	KSC(N)/PC/PM/4	Puncha	Panipathar	Deorang	23.158467	86.485333
		DEOR/PM/8	KSC(N)/PC/PM/5	Puncha	Panipathar	Deorang	23.158333	86.484967
		DEOR/PM/9	KSC(N)/PC/PM/6	Puncha	Panipathar	Deorang	23.158017	86.485050
		SURU/PM/1	KSC(N)/PR/PM/7	Para	Surulia	Surulia	23.319200	86.395983
		SURU/PM/3	KSC(N)/PR/PM/8	Para	Surulia	Surulia	23.319433	86.396383
		SURU/PM/4	KSC(N)/PR/PM/9	Para	Surulia	Surulia	23.319650	86.396683
		SURU/PM/5	KSC(N)/PR/PM/10	Para	Surulia	Surulia	23.319433	86.396117
Schleichera oleosa	06	PIRRA/SO/1	KSC(N)/PC/SO/1	Puncha	Panipathar	Pirrah	23.172850	86.537917
		PIRRA/SO/2	KSC(N)/PC/SO/2	Puncha	Panipathar	Pirrah	23.172717	86.537933
		PIRRA/SO/4	KSC(N)/PC/SO/3	Puncha	Panipathar	Pirrah	23.172933	86.538067
		PIRRA/SO/5	KSC(N)/PC/SO/4	Puncha	Panipathar	Pirrah	23.172933	86.538067
		PIRRA/SO/8	KSC(N)/PC/SO/5	Puncha	Panipathar	Pirrah	23.172867	86.538233
		PIRRA/SO/9	KSC(N)/PC/SO/6	Puncha	Panipathar	Pirrah	23.172833	86.538300

Shorea robusta	06	DEOR/SR/19	KSC(N)/PC/SR/1	Puncha	Panipathar	Deorang	23.156583	86.487450
		DEOR/SR/18	KSC(N)/PC/SR/2	Puncha	Panipathar	Deorang	23.156583	86.487450
		DEOR/SR/11	KSC(N)/PC/SR/3	Puncha	Panipathar	Deorang	23.156367	86.487350
		DEOR/SR/16	KSC(N)/PC/SR/4	Puncha	Panipathar	Deorang	23.156333	86.487300
		DEOR/SR/5	KSC(N)/PC/SR/5	Puncha	Panipathar	Deorang	23.156433	86.487383
		DEOR/SR/7	KSC(N)/PC/SR/6	Puncha	Panipathar	Deorang	23.156350	86.488017
Terminalia alata	06	DEOR/TA/1	KSC(N)/PC/TA/1	Puncha	Panipathar	Deorang	23.156917	86.486767
		DEOR/TA/2	KSC(N)/PC/TA/2	Puncha	Panipathar	Deorang	23.156900	86.486600
		DEOR/TA/3	KSC(N)/PC/TA/3	Puncha	Panipathar	Deorang	23.156883	86.487117
		DEOR/TA/4	KSC(N)/PC/TA/4	Puncha	Panipathar	Deorang	23.156667	86.487183
		DEOR/TA/5	KSC(N)/PC/TA/5	Puncha	Panipathar	Deorang	23.156783	86.487267
		DEOR/TA/6	KSC(N)/PC/TA/6	Puncha	Panipathar	Deorang	23.15551	86.48692
Terminalia arjuna	01	KSC(N)/PC/TA/1	KSC(N)/PC/TAR/1	Puncha	Panipathar	Derong	23.157000	86.486867
Terminalia bellirica	06	DEOR/TB/2	KSC(N)/PC/TB/1	Puncha	Panipathar	Deorang	23.156667	86.487367
		DEOR/TB/6	KSC(N)/PC/TB/2	Puncha	Panipathar	Deorang	23.157000	86.486867
		DEOR/TB/7	KSC(N)/PC/TB/3	Puncha	Panipathar	Deorang	23.156950	86.486717
		DEOR/TB/9	KSC(N)/PC/TB/4	Puncha	Panipathar	Deorang	23.156767	86.486783
		DEOR/TB/10	KSC(N)/PC/TB/5	Puncha	Panipathar	Deorang	23.157450	86.486900
		DEOR/TB/16	KSC(N)/PC/TB/6	Puncha	Panipathar	Deorang	23.156483	86.487183

2.G Kangsawati (South) Division

In Kangsawati (South), 6 plus trees along with 52 candidate plus trees have been screened for future retention along with their location details (Table 2.G.1, 2.G.2 & 2.G.3).

Table. 2.G.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kangsawati (South) Division

Sl No.	Name of the species	No. of Plus tree	No. of Candidate Plus trees
1.	*Buchanania cochinchinensis*	01	06
2.	*Madhuca latifolia*	02	10
3.	*Tectona grandis*	01	06
4.	*Terminalia bellirica*	02	20
5.	*Terminalia chebula*	00	10
6.	***Total***	**06**	**52**

Table 2.G.2 Location Details of Screened Plus Trees in Kangsawati (South) Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Buchanania cochinchinensis	06	**PURI/BL/11**	KSC(S)/BB/BC/1(P)	Barabazar	Purihansa	Purihansa	23.0693	86.36989
		PURI/BL/17	KSC(S)/BB/BC/2(P)	Barabazar	Purihansa	Purihansa	23.06958	86.37043
		PURI/BL/4	KSC(S)/BB/BC/3(P)	Barabazar	Purihansa	Purihansa	23.07015	86.3704
		PURI/BL/6	KSC(S)/BB/BC/4(P)	Barabazar	Purihansa	Purihansa	23.07099	86.37047
		PURI/BL/14	KSC(S)/BB/BC/5(P)	Barabazar	Purihansa	Purihansa	23.07096	86.3719
		PURI/BL/22	KSC(S)/BB/BC/6(P)	Barabazar	Purihansa	Purihansa	23.06831	86.37145
Madhuca latifolia	02	PIRR/ML/7	KSC(S)/PC/ML/1(P)	Puncha	Panipathar	Pirrah	23.173000	86.537317
		RUPA/ML/5	KSC(S)/BB/ML/2(P)	Barabazar	Barabazar	Rupapatia	23.078650	86.365483
Terminalia bellirica	02	PURI/TB/8	KSC(S)/MB/TB/1(P)	Manbazar	Purihansa	Purihansa	23.070350	86.353000
		PURI/TB/15	KSC(S)/MB/TB/2(P)	Manbazar	Purihansa	Purihansa	23.06952	86.37112
Terminalia chebula	02	PURI/TC/4	KSC(S)/BB/TC/1(P)	Barabazar	Barabazar	Purihansa	23.069200	86.353733
		PURI/TC/6	KSC(S)/BB/TC/2(P)	Barabazar	Barabazar	Purihansa	23.07062	86.36981
Tectona grandis	01	NILM/TG/1	KSC(S)/BB/TG/1(P)	Barabazar	Barabazar	Nilmohanpur	23.023583	86.371700

Table 2.G.3 Location Details of Screened Candidate Plus Trees in Kangsawati (South) Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Buchanania cochinchinensis	36	**PURI/BL/1**	KSC(S)/BB/BC/1	Barabazar	Purihansa	Purihansa	23.06885	86.36955
		PURI/BL/2	KSC(S)/BB/BC/2	Barabazar	Purihansa	Purihansa	23.06905	86.36921
		PURI/BL/3	KSC(S)/BB/BC/3	Barabazar	Purihansa	Purihansa	23.06921	86.36935
		PURI/BL/4	KSC(S)/BB/BC/4	Barabazar	Purihansa	Purihansa	23.0691	86.36958
		PURI/BL/5	KSC(S)/BB/BC/5	Barabazar	Purihansa	Purihansa	23.06873	86.36954
		PURI/BL/6	KSC(S)/BB/BC/6	Barabazar	Purihansa	Purihansa	23.06859	86.36965
		PURI/BL/7	KSC(S)/BB/BC/7	Barabazar	Purihansa	Purihansa	23.06886	86.36982
		PURI/BL/9	KSC(S)/BB/BC/8	Barabazar	Purihansa	Purihansa	23.06872	86.37013
		PURI/BL/13	KSC(S)/BB/BC/9	Barabazar	Purihansa	Purihansa	23.06948	86.37018
		PURI/BL/14	KSC(S)/BB/BC/10	Barabazar	Purihansa	Purihansa	23.06948	86.37029
		PURI/BL/15	KSC(S)/BB/BC/11	Barabazar	Purihansa	Purihansa	23.06956	86.37027
		PURI/BL/20	KSC(S)/BB/BC/12	Barabazar	Purihansa	Purihansa	23.06982	86.37047
		PURI/BL/21	KSC(S)/BB/BC/13	Barabazar	Purihansa	Purihansa	23.06986	86.37035

		PURI/BL/22	KSC(S)/BB/BC/14	Barabazar	Purihansa	Purihansa	23.0699	86.37046
		PURI/BL/23	KSC(S)/BB/BC/15	Barabazar	Purihansa	Purihansa	23.06992	86.37045
		PURI/BL/24	KSC(S)/BB/BC/16	Barabazar	Purihansa	Purihansa	23.06977	86.37056
		PURI/BL/26	KSC(S)/BB/BC/17	Barabazar	Purihansa	Purihansa	23.06993	86.37069
		PURI/BL/27	KSC(S)/BB/BC/18	Barabazar	Purihansa	Purihansa	23.06029	86.371
		PURI/BL/2	KSC(S)/BB/BC/19	Barabazar	Purihansa	Purihansa	23.06997	86.37025
		PURI/BL/3	KSC(S)/BB/BC/20	Barabazar	Purihansa	Purihansa	23.07013	86.37012
		PURI/BL/5	KSC(S)/BB/BC/21	Barabazar	Purihansa	Purihansa	23.07087	86.37042
		PURI/BL/7	KSC(S)/BB/BC/22	Barabazar	Purihansa	Purihansa	23.07109	86.37089
		PURI/BL/8	KSC(S)/BB/BC/23	Barabazar	Purihansa	Purihansa	23.07101	86.37122
		PURI/BL/9	KSC(S)/BB/BC/24	Barabazar	Purihansa	Purihansa	23.07109	86.37127
		PURI/BL/10	KSC(S)/BB/BC/25	Barabazar	Purihansa	Purihansa	23.07127	86.37134
		PURI/BL/13	KSC(S)/BB/BC/26	Barabazar	Purihansa	Purihansa	23.0717	86.37189
		PURI/BL/15	KSC(S)/BB/BC/27	Barabazar	Purihansa	Purihansa	23.07086	86.37198
		PURI/BL/16	KSC(S)/BB/BC/28	Barabazar	Purihansa	Purihansa	23.07062	86.37157
		PURI/BL/17	KSC(S)/BB/BC/29	Barabazar	Purihansa	Purihansa	23.0699	86.37165
		PURI/BL/18	KSC(S)/BB/BC/30	Barabazar	Purihansa	Purihansa	23.06907	86.37187
		PURI/BL/19	KSC(S)/BB/BC/31	Barabazar	Purihansa	Purihansa	23.069	86.37143
		PURI/BL/21	KSC(S)/BB/BC/32	Barabazar	Purihansa	Purihansa	23.06871	86.37161
		PURI/BL/24	KSC(S)/BB/BC/33	Barabazar	Purihansa	Purihansa	23.06809	86.37124
		PURI/BL/25	KSC(S)/BB/BC/34	Barabazar	Purihansa	Purihansa	23.06786	86.37199
		PURI/BL/26	KSC(S)/BB/BC/35	Barabazar	Purihansa	Purihansa	23.06774	86.37251
		PURI/BL/27	KSC(S)/BB/BC/36	Barabazar	Purihansa	Purihansa	23.06773	86.37187
Madhuca latifolia	10	PIRR/ML/1	KSC(S)/PC/ML/1	Puncha	Panipathar	Pirrah	23.172950	86.537733
		PIRR/ML/2	KSC(S)/PC/ML/2	Puncha	Panipathar	Pirrah	23.173033	86.537517
		PIRR/ML/3	KSC(S)/PC/ML/3	Puncha	Panipathar	Pirrah	23.173067	86.537550
		PIRR/ML/4	KSC(S)/PC/ML/4	Puncha	Panipathar	Pirrah	23.173100	86.537550
		PIRR/ML/5	KSC(S)/PC/ML/5	Puncha	Panipathar	Pirrah	23.173167	86.537383
		PIRR/ML/6	KSC(S)/PC/ML/6	Puncha	Panipathar	Pirrah	23.172950	86.537733
		RUPA/ML/1	KSC(S)/BB/ML/7	Barabazar	Barabazar	Rupapatia	23.078567	86.365750
		RUPA/ML/2	KSC(S)/BB/ML/8	Barabazar	Barabazar	Rupapatia	23.078750	86.365467
		RUPA/ML/3	KSC(S)/BB/ML/9	Barabazar	Barabazar	Rupapatia	23.078733	86.365417
		RUPA/ML/4	KSC(S)/BB/ML/10	Barabazar	Barabazar	Rupapatia	23.078633	86.365467
Terminalia bellirica	20	PURI/TB/1	KSC(S)/MB/TB/1	Manbazar	Purihansa	Purihansa	23.068900	86.352567
		PURI/TB/2	KSC(S)/MB/TB/2	Manbazar	Purihansa	Purihansa	23.068867	86.352700
		PURI/TB/3	KSC(S)/MB/TB/3	Manbazar	Purihansa	Purihansa	23.068983	86.353017
		PURI/TB/4	KSC(S)/MB/TB/2(P)	Manbazar	Purihansa	Purihansa	23.068983	86.352567
		PURI/TB/5	KSC(S)/MB/TB/4	Manbazar	Purihansa	Purihansa	23.069350	86.353250

		PURI/TB/6	KSC(S)/MB/TB/5	Manbazar	Purihansa	Purihansa	23.069733	86.352983
		PURI/TB/7	KSC(S)/MB/TB/6	Manbazar	Purihansa	Purihansa	23.069750	86.353000
		PURI/TB/9	KSC(S)/MB/TB/7	Manbazar	Purihansa	Purihansa	23.068417	86.353367
		PURI/TB/10	KSC(S)/MB/TB/8	Manbazar	Purihansa	Purihansa	23.068350	86.353633
		PURI/TB/11	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.069623	86.37162
		PURI/TB/12	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.07022	86.37122
		PURI/TB/13	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.07024	86.37134
		PURI/TB/14	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06995	86.37126
		PURI/TB/16	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06971	86.3711
		PURI/TB/17	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.0698	86.3709
		PURI/TB/18	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06974	86.37082
		PURI/TB/19	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06966	86.37065
		PURI/TB/20	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06958	86.37061
		PURI/TB/21	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06957	86.37101
		PURI/TB/22	KSC(S)/MB/TB/	Manbazar	Purihansa	Purihansa	23.06949	86.3709
Terminalia chebula	8	PURI/TC/1	KSC(S)/BB/TC/1	Barabazar	Barabazar	Purihansa	23.068817	86.352450
		PURI/TC/2	KSC(S)/BB/TC/2	Barabazar	Barabazar	Purihansa	23.069183	86.352917
		PURI/TC/3	KSC(S)/BB/TC/3	Barabazar	Barabazar	Purihansa	23.068667	86.353283
		PURI/TC/5	KSC(S)/BB/TC/5	Barabazar	Barabazar	Purihansa	23.069733	86.353033
		PURI/TC/7	KSC(S)/BB/TC/7	Barabazar	Barabazar	Purihansa	23.07066	86.37014
		PURI/TC/8	KSC(S)/BB/TC/8	Barabazar	Barabazar	Purihansa	23.07045	86.37025
		PURI/TC/9	KSC(S)/BB/TC/9	Barabazar	Barabazar	Purihansa	23.07044	86.37068
		PURI/TC/10	KSC(S)/BB/TC/10	Barabazar	Barabazar	Purihansa	23.07630	86.37099
Tectona grandis	06	NILM/TG/2	KSC(S)/BB/TG/1	Barabazar	Barabazar	Nilmohanpur	23.023633	86.371733
		NILM/TG/3	KSC(S)/BB/TG/2	Barabazar	Barabazar	Nilmohanpur	23.024117	86.371667
		NILM/TG/4	KSC(S)/BB/TG/3	Barabazar	Barabazar	Nilmohanpur	23.023750	86.371600
		NILM/TG/5	KSC(S)/BB/TG/4	Barabazar	Barabazar	Nilmohanpur	23.023683	86.371550
		NILM/TG/9	KSC(S)/BB/TG/5	Barabazar	Barabazar	Nilmohanpur	23.023883	86.371667
		NILM/TG/10	KSC(S)/BB/TG/6	Barabazar	Barabazar	Nilmohanpur	23.023967	86.371650

2.H Medinipur Division

17 plus trees along with 66 candidate plus trees will be marked in Medinipur division (Table 2.H.1). Location details of each tree has been recorded and presented in table 2.H.2 and 2.H.3.

Table. 2.H.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Medinipur Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	07	10
2.	*Alstonia scholaris*	01	06
3.	*Anogeissus latifolia*	00	01
4.	*Azadirachta indica*	00	05
5.	*Buchanania cochinchinensis*	00	03
6.	*Cassia siamea*	00	02
7.	*Diospyros melanoxylon*	00	01
8.	*Eucalyptus tereticornis*	01	00
9.	*Gmelina arborea*	00	02
10.	*Lagerstroemia parviflora*	02	08
11.	*Madhuca latifolia*	01	03
12.	*Pterocarpus marsupium*	02	05
13.	*Pterocarpus santalinus*	00	01
14.	*Tectona grandis*	00	02
15.	*Terminalia arjuna*	03	10
16.	*Terminalia bellirica*	00	06
17.	*Terminalia chebula*	00	01
	Total	**17**	**66**

Table 2.H.2 Location Details of Screened Plus Trees in Medinipur Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	07	ARAB/AA/1	MR/AB/AA/1(P)	Arabari	Arabari	Arabari	22.687500	87.336917
		ARAB/AA/2	MR/AB/AA/2(P)	Arabari	Arabari	Arabari	22.692483	87.336983
		ARAB/AA/2	MR/AB/AA/3(P)	Arabari	Arabari	Arabari	22.691750	87.339611
		ARAB/AA/3	MR/AB/AA/4(P)	Arabari	Arabari	Arabari	22.692361	87.339833
		ARAB/AA/5	MR/AB/AA/5(P)	Arabari	Arabari	Arabari	22.690750	87.341217
		ARAB/AA/6	MR/AB/AA/6(P)	Arabari	Arabari	Arabari	22.690733	87.341233
		ARAB/AA/12	MR/AB/AA/7(P)	Arabari	Arabari	Arabari	22.686067	87.342667
Alstonia scholaris	01	**ARAB/AS/1**	MR/AB/AS/1(P)	Arabari	Arabari	Arabari	22.685056	87.347250
Eucalyptus tereticornis	01	ARAB/ET/1	MR/AB/ET/1(P)	Arabari	Arabari	Chandmura	22.683139	87.340833
Lagerstroemia parviflora	02	ARAB/LP/2	MR/AB/LP/1(P)	Arabari	Arabari	Arabari	22.692650	87.349917
		ARAB/LP/4	MR/AB/LP/2(P)	Arabari	Arabari	Arabari	22.692650	87.349767
Madhuca latifolia	01	GAGR/1	MR/AB/ML/1(P)	Arabari	Arabari	Gagra	22.694583	87.340028
Pterocarpus marsupium	02	GAGR/PM/1	MR/AB/PM/1(P)	Arabari	Arabari	Gagra	22.695083	87.340389
		ARAB/PM/3	MR/AB/PM/2(P)	Arabari	Arabari	Arabari	22.682217	87.333800
Terminalia arjuna	03	ARAB/TA/1	MR/AB/TA/1(P)	Arabari	Arabari	Arabari	22.690283	87.334867
		BURA/TA/3	MR/AB/TA/2(P)	Arabari	Arabari	Buramara	22.689083	87.362083
		ARAB/TA/3	MR/AB/TA/3(P)	Arabari	Arabari	Arabari	22.686944	87.335139

Table 2.H.3 Location Details of Screened Candidate Plus Trees in Medinipur Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	10	ARAB/AA/3	MR/AB/AA/1	Arabari	Arabari	Arabari	22.691583	87.339883
		ARAB/AA/7	MR/AB/AA/2	Arabari	Arabari	Arabari	22.689167	87.342217
		ARAB/AA/8	MR/AB/AA/3	Arabari	Arabari	Arabari	22.687167	87.342617
		ARAB/AA/1	MR/AB/AA/4	Arabari	Arabari	Arabari	22.691694	87.339583
		ARAB/AA/4	MR/AB/AA/5	Arabari	Arabari	Arabari	22.692417	87.339889
		ARAB/AA/5	MR/AB/AA/6	Arabari	Arabari	Arabari	22.692417	87.339917
		ARAB/AA/6	MR/AB/AA/7	Arabari	Arabari	Arabari	22.692306	87.340167
		ARAB/AA/7	MR/AB/AA/8	Arabari	Arabari	Arabari	22.692250	87.340111
		ARAB/AA/8	MR/AB/AA/9	Arabari	Arabari	Arabari	22.692028	87.339861
		ARAB/AA/9	MR/AB/AA/10	Arabari	Arabari	Arabari	22.692111	87.340278
Alstonia scholaris	06	ARAB/AS/1	MR/AB/AS/1	Arabari	Arabari	Arabari	22.685567	87.344117
		ARAB/AS/2	MR/AB/AS/2	Arabari	Arabari	Arabari	22.685450	87.344500
		ARAB/AS/3	MR/AB/AS/3	Arabari	Arabari	Arabari	22.685350	87.344583

		ARAB/AS/4	MR/AB/AS/4	Arabari	Arabari	Arabari	22.685350	87.344583
		ARAB/AS/2	MR/AB/AS/4	Arabari	Arabari	Arabari	22.685056	87.347250
		ARAB/AS/3	MR/AB/AS/4	Arabari	Arabari	Arabari	22.684944	87.347250
Anogeissus latifolia	01	MR/AB/AL/1	MR/AB/AL/1	Arabari	Arabari	Arabari	22.683767	87.340300
Azadirachta indica	05	**MIRGA/AI/1**	MR/AB/AI/1	Arabari	Mirga	Mirga	22.643722	87.292139
		MIRGA/AI/1	MR/AB/AI/2	Arabari	Mirga	Mirga	22.644300	87.289467
		MIRGA/AI/2	MR/AB/AI/3	Arabari	Mirga	Mirga	22.643528	87.291944
		MIRGA/AI/3	MR/AB/AI/4	Arabari	Mirga	Mirga	22.643611	87.292056
		MIRGA/AI/4	MR/AB/AI/5	Arabari	Mirga	Mirga	22.643611	87.292054
Buchanania cochinchinensis	03	MR/AB//BC/1	MR/AB/BC/1	Arabari	Mirga	Mirga	22.626383	87.245983
		MR/AB//BC/2	MR/AB/BC/2	Arabari	Mirga	Mirga	22.625417	87.246067
		MR/AB//BC/3	MR/AB/BC/3	Arabari	Mirga	Mirga	22.624367	87.246783
Cassia siamea	02	ARAB/CS/1	MR/AB/CS/1	Arabari	Arabari	Arabari	22.687639	87.344778
		ARAB/CS/2	MR/AB/CS/2	Arabari	Arabari	Arabari	22.683056	87.340250
Diospyros melanoxylon	01	MR/AB/DM/1	MR/AB/DM/1	Arabari	Mirga	Mirga	22.634350	87.258117
Gmelina arborea	02	ARAB/GA/1	MR/AB/GA/1	Arabari	Arabari	Arabari	22.685983	87.344267
		ARAB/GA/2	MR/AB/GA/2	Arabari	Arabari	Arabari	22.686100	87.344250
Lagerstroemia parviflora	08	ARAB/LP/1	MR/AB/LP/1	Arabari	Arabari	Arabari	22.692650	87.349917
		ARAB/LP/3	MR/AB/LP/2	Arabari	Arabari	Arabari	22.692650	87.349917
		ARAB/LP/5	MR/AB/LP/3	Arabari	Arabari	Arabari	22.692650	87.349767
		ARAB/ LP/1	MR/AB/LP/4	Arabari	Arabari	Arabari	22.681583	87.341750
		ARAB/ LP/2	MR/AB/LP/5	Arabari	Arabari	Arabari	22.692028	87.352167
		ARAB/ LP/3	MR/AB/LP/6	Arabari	Arabari	Arabari	22.691444	87.351472
		ARAB/ LP/1	MR/AB/LP/7	Arabari	Arabari	Arabari	22.691444	87.351778
		ARAB/ LP/2	MR/AB/LP/8	Arabari	Arabari	Arabari	22.691472	87.351639
Madhuca latifolia	03	GAGR/ML/1	MR/AB/ML/1	Arabari	Arabari	Gagra	22.694000	87.339556
		GAGR/ML/2	MR/AB/ML/2	Arabari	Arabari	Gagra	22.694528	87.340222
		GAGR/ML/3	MR/AB/ML/3	Arabari	Arabari	Gagra	22.694528	87.340306
Pterocarpus marsupium	05	ARAB/PM/1	MR/AB/PM/1	Arabari	Arabari	Arabari	22.682533	87.334350
		ARAB/PM/2	MR/AB/PM/2	Arabari	Arabari	Arabari	22.682450	87.334133
		ARAB/PM/4	MR/AB/PM/3	Arabari	Arabari	Arabari	22.682167	87.333933
		ARAB/PM/1	MR/AB/PM/4	Arabari	Arabari	Arabari	22.685028	87.346778
		ARAB/PM/2	MR/AB/PM/5	Arabari	Arabari	Arabari	22.685250	87.346500
Pterocarpus santalinus	01	MR/AB/PS/1	MR/AB/PS/1	Arabari	Arrabari	Arabari	22.683983	87.342050
Tectona grandis	02	MR/AB/TG /1	MR/AB/TG /1	Arabari	Arrabari	Arabari	22.689200	87.343750
		MR/AB/TG/2	MR/AB/TG/2	Arabari	Arrabari	Arabari	22.688333	87.344067
Terminalia arjuna	10	ARAB/TA/2	MR/AB/TA/1	Arabari	Arabari	Arabari	22.690383	87.335033
		ARAB/TA/3	MR/AB/TA/2	Arabari	Arabari	Arabari	22.690367	87.335067
		ARAB/TA/4	MR/AB/TA/3	Arabari	Arabari	Arabari	22.690183	87.334917

		ARAB/TA/5	MR/AB/TA/4	Arabari	Arabari	Arabari	22.690400	87.335100
		BURA/TA/1	MR/AB/TA/5	Arabari	Arabari	Buramara	22.689450	87.361900
		BURA/TA/2	MR/AB/TA/6	Arabari	Arabari	Buramara	22.689150	87.361983
		BURA/TA/4	MR/AB/TA/7	Arabari	Arabari	Buramara	22.689633	87.361967
		BURA/TA/5	MR/AB/TA/8	Arabari	Arabari	Buramara	22.690367	87.362333
		ARAB/TA/2	MR/AB/TA/9	Arabari	Arabari	Arabari	22.687250	87.334889
		ARAB/TA/3	MR/AB/TA/10	Arabari	Arabari	Arabari	22.686944	87.335139
Terminalia bellirica	06	ARAB/TB/1	MR/AB/TB/1	Arabari	Arabari	Arabari	22.694194	87.354917
		BURA/TB/1	MR/AB/TB/2	Arabari	Arabari	Buramara	22.691017	87.337383
		BURA /TB/2	MR/AB/TB/3	Arabari	Arabari	Buramara	22.690850	87.337333
		BURA /TB/3	MR/AB/TB/4	Arabari	Arabari	Buramara	22.691000	87.337317
		BURA /TB/4	MR/AB/TB/5	Arabari	Arabari	Buramara	22.696233	87.344167
		MR/AB/TB/1	MR/AB/TB/6	Arabari	Arabari	Arabari	22.690883	87.337417
Terminalia chebula	01	BURA/TC/1	MR/AB/TC/1	Arabari	Arabari	Buramara	22.689317	87.352750

2.I New Murshidabad division

In New Murshidabad division, 29 trees have been marked as plus trees and 33 as candidate plus trees (2.I.1). Recorded location details of plus trees and candidate plus trees are presented in table 2.I.2 and 2.I.3 respectively.

Table. 2.I.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in New Murshidabad Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	29	33
	Total	**29**	**33**

Table 2.I.2 Location Details of Screened Plus Trees inNew Murshidabad Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	29	**KHIS/AA/1**	NMD/RG/AA/1(P)	Ranaghat	Ranaghat	Khisma	23.250028	88.596278
		KHIS/AA/2	NMD/RG/AA/2(P)	Ranaghat	Ranaghat	Khisma	23.248917	88.598028
		KHIS/AA/4	NMD/RG/AA/3(P)	Ranaghat	Ranaghat	Khisma	23.249389	88.595583
		KHIS/AA/8	NMD/RG/AA/4(P)	Ranaghat	Ranaghat	Khisma	23.249639	88.596139
		KHIS/AA/28	NMD/RG/AA/5(P)	Ranaghat	Ranaghat	Khisma	23.249361	88.598056
		KHIS/AA/4	NMD/RG/AA/6(P)	Ranaghat	Ranaghat	Khisma	23.249667	88.596200
		KHIS/AA/22	NMD/RG/AA/7(P)	Ranaghat	Ranaghat	Khisma	23.249611	88.596222
		KHIS/AA/70	NMD/RG/AA/8(P)	Ranaghat	Ranaghat	Khisma	23.251083	88.593861
		KHIS/AA/148	NMD/RG/AA/9 (P)	Ranaghat	Ranaghat	Khisma	23.150810	88.357610
		KHIS/AA/157	NMD/RG/AA/10(P)	Ranaghat	Ranaghat	Khisma	23.250917	88.597611
		KHIS/AA/162	NMD/RG/AA/11(P)	Ranaghat	Ranaghat	Khisma	23.250639	88.597000
		KHIS/AA/163	NMD/RG/AA/12(P)	Ranaghat	Ranaghat	Khisma	23.249861	88.599194
		KHIS/AA/164	NMD/RG/AA/13(P)	Ranaghat	Ranaghat	Khisma	23.249778	88.599167
		KHIS/AA/165	NMD/RG/AA/14(P)	Ranaghat	Ranaghat	Khisma	23.249694	88.599028
		KHIS/AA/171	NMD/RG/AA/15(P)	Ranaghat	Ranaghat	Khisma	23.249611	88.598889
		KHIS/AA/190	NMD/RG/AA/16(P)	Ranaghat	Ranaghat	Khisma	23.250528	88.596861
		KHIS/AA/230	NMD/RG/AA/17(P)	Ranaghat	Ranaghat	Khisma	23.249611	88.599278
		KHIS/AA/272	NMD/RG/AA/18(P)	Ranaghat	Ranaghat	Khisma	23.249194	88.598139
		KHIS/AA/293	NMD/RG/AA/19(P)	Ranaghat	Ranaghat	Khisma	23.249472	88.598083
		KHIS/AA/295	NMD/RG/AA/20(P)	Ranaghat	Ranaghat	Khisma	23.249194	88.598167
		KHIS/AA/296	NMD/RG/AA/21(P)	Ranaghat	Ranaghat	Khisma	23.249194	88.598083
		KHIS/AA/299	NMD/RG/AA/22(P)	Ranaghat	Ranaghat	Khisma	23.251778	88.597056
		KHIS/AA/301	NMD/RG/AA/23(P)	Ranaghat	Ranaghat	Khisma	23.251833	88.596972
		KHIS/AA/308	NMD/RG/AA/24(P)	Ranaghat	Ranaghat	Khisma	23.254639	88.595583
		KHIS/AA/309	NMD/RG/AA/25(P)	Ranaghat	Ranaghat	Khisma	23.254361	88.595472
		KHIS/AA/442	NMD/RG/AA/26(P)	Ranaghat	Ranaghat	Khisma	23.253000	88.596500
		KHIS/AA/494	NMD/RG/AA/27(P)	Ranaghat	Ranaghat	Khisma	23.254167	88.596222
		KHIS/AA/495	NMD/RG/AA/28(P)	Ranaghat	Ranaghat	Khisma	23.254166	88.595917
		KHIS/AA/496	NMD/RG/AA/29(P)	Ranaghat	Ranaghat	Khisma	23.254250	88.595887

Table 2.I.3 Location Details of Screened Candidate Plus Trees in New Murshidabad Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	33	KHIS/AA/1	NMD/RG/AA/1	Ranaghat	Ranaghat	Khisma	**23.247433**	**88.594950**
		KHIS/AA/2	NMD/RG/AA/2	Ranaghat	Ranaghat	Khisma	**23.249283**	**88.595550**
		KHIS/AA/3	NMD/RG/AA/3	Ranaghat	Ranaghat	Khisma	**23.249700**	**88.595933**
		KHIS/AA/5	NMD/RG/AA/4	Ranaghat	Ranaghat	Khisma	**23.250517**	**88.596467**
		KHIS/AA/6	NMD/RG/AA/5	Ranaghat	Ranaghat	Khisma	**23.250519**	**88.596468**
		KHIS/AA/7	NMD/RG/AA/6	Ranaghat	Ranaghat	Khisma	**23.251100**	**88.593983**
		KHIS/AA/9	NMD/RG/AA/7	Ranaghat	Ranaghat	Khisma	**23.251717**	**88.597000**
		KHIS/AA/10	NMD/RG/AA/8	Ranaghat	Ranaghat	Khisma	**23.251750**	**88.596967**
		KHIS/AA/11	NMD/RG/AA/9	Ranaghat	Ranaghat	Khisma	**23.151420**	**88.537950**
		KHIS/AA/12	NMD/RG/AA/10	Ranaghat	Ranaghat	Khisma	**23.253000**	**88.596700**
		KHIS/AA/13	NMD/RG/AA/11	Ranaghat	Ranaghat	Khisma	**23.252967**	**88.596583**
		KHIS/AA/14	NMD/RG/AA/12	Ranaghat	Ranaghat	Khisma	**23.253350**	**88.596967**
		KHIS/AA/16	NMD/RG/AA/13	Ranaghat	Ranaghat	Khisma	**23.253500**	**88.596900**
		KHIS/AA/17	NMD/RG/AA/14	Ranaghat	Ranaghat	Khisma	**23.253867**	**88.597283**
		KHIS/AA/18	NMD/RG/AA/15	Ranaghat	Ranaghat	Khisma	**23.254083**	**88.597400**
		KHIS/AA/19	NMD/RG/AA/16	Ranaghat	Ranaghat	Khisma	**23.254333**	**88.597233**
		KHIS/AA/20	NMD/RG/AA/17	Ranaghat	Ranaghat	Khisma	23.152560	88.358210
		KHIS/AA/21	NMD/RG/AA/18	Ranaghat	Ranaghat	Khisma	**23.254333**	**88.597233**
		KHIS/AA/24	NMD/RG/AA/19	Ranaghat	Ranaghat	Khisma	**23.250950**	**88.597750**
		KHIS/AA/25	NMD/RG/AA/20	Ranaghat	Ranaghat	Khisma	**23.250959**	**88.597758**
		KHIS/AA/27	NMD/RG/AA/21	Ranaghat	Ranaghat	Khisma	23.149700	88.357000
		KHIS/AA/28	NMD/RG/AA/22	Ranaghat	Ranaghat	Khisma	**23.249417**	**88.594933**
		KHIS/AA/34	NMD/RG/AA/23	Ranaghat	Ranaghat	Khisma	**23.251183**	**88.594000**
		KHIS/AA/50	NMD/RG/AA/24	Ranaghat	Ranaghat	Khisma	**23.252350**	**88.596250**
		KHIS/AA/86	NMD/RG/AA/25	Ranaghat	Ranaghat	Khisma	23.249611	88.595278
		KHIS/AA/131	NMD/RG/AA/26	Ranaghat	Ranaghat	Khisma	23.250733	88.596067
		KHIS/AA/134	NMD/RG/AA/27	Ranaghat	Ranaghat	Khisma	23.251133	88.596133
		KHIS/AA/172	NMD/RG/AA/28	Ranaghat	Ranaghat	Khisma	23.249611	88.598833
		KHIS/AA/253	NMD/RG/AA/29	Ranaghat	Ranaghat	Khisma	23.248972	88.598028
		KHIS/AA/255	NMD/RG/AA/30	Ranaghat	Ranaghat	Khisma	23.248916	88.598028
		KHIS/AA/265	NMD/RG/AA/31	Ranaghat	Ranaghat	Khisma	23.247972	88.598028
		KHIS/AA/273	NMD/RG/AA/32	Ranaghat	Ranaghat	Khisma	23.249111	88.597944
		KHIS/AA/278	NMD/RG/AA/33	Ranaghat	Ranaghat	Khisma	23.247611	88.598056

2.J Panchet division

In Panchet division, 16 trees have been marked as plus trees and 51 as candidate plus trees (2.J.1). Recorded location details of plus trees and candidate plus trees are presented in table 2.J.2 and 2.J.3 respectively.

Table. 2.J.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Panchet Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	16	51
	Total	**16**	**51**

Table 2.J.2 Location Details of Screened Plus Trees in Panchet Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	16	BHED/AA/7	PAN/BHED/AA/1(P)	Bishnupur	Bishnupur-II	Bhedua-291	23.02563	87.26022
		SITA/AA/9	PAN/SITA/AA/2(P)	Bankadaba	Piardoba	Sitarampur-122	23.02278	87.26042
		SITA/AA/11	PAN/SITA/AA/3P)	Bankadaba	Piardoba	Sitarampur-122	23.02295	87.26061
		SITA/AA/40	PAN/SITA/AA/4(P)	Bankadaba	Piardoba	Sitarampur-122	23.02126	87.26503
		SITA/AA/44	PAN/SITA/AA/5(P)	Bankadaba	Piardoba	Sitarampur-122	23.02115	87.26416
		SITA/AA/46	PAN/SITA/AA/6(P)	Bankadaba	Piardoba	Sitarampur-122	23.02139	87.26413
		SITA/AA/53	PAN/SITA/AA/7(P)	Bankadaba	Piardoba	Sitarampur-122	23.02323	87.2594
		SITA/AA/60	PAN/SITA/AA/8(P)	Bankadaba	Piardoba	Sitarampur-122	23.02271	87.2607
		SITA/AA/7	PAN/SITA/AA/9(P)	Bankadaba	Piardoba	Sitarampur-122	23.023124	87.26052
		SITA/AA/12	PAN/SITA/AA/10(P)	Bankadaba	Piardoba	Sitarampur-122	23.02336	87.26077
		SITA/AA/19	PAN/SITA/AA/11(P)	Bankadaba	Piardoba	Sitarampur-122	23.02263	87.26115
		SITA/AA/26	PAN/SITA/AA/12(P)	Bankadaba	Piardoba	Sitarampur-122	23.02141	87.26515
		SITA/AA/27	PAN/SITA/AA/13(P)	Bankadaba	Piardoba	Sitarampur-122	23.02146	87.26614
		SITA/AA/30	PAN/SITA/AA/14(P)	Bankadaba	Piardoba	Sitarampur-122	23.02074	87.26573
		SITA/AA/32	PAN/SITA/AA/15(P)	Bankadaba	Piardoba	Sitarampur-122	23.021	87.26549
		SITA/AA/35	PAN/SITA/AA/16(P)	Bankadaba	Piardoba	Sitarampur-122	23.02118	87.26543

Table 2.J.3 Location Details of Screened Candidate Plus Trees in Panchet Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	51	**BHED/AA/6**	PAN/BHED/AA/1	Bishnupur	Bishnupur-II	Bhedua-291	23.02577	87.26036
		BHED/AA/8	PAN/BHED/AA/2	Bishnupur	Bishnupur-II	Bhedua-291	23.02595	87.26046
		BHED/AA/15	PAN/BHED/AA/3	Bishnupur	Bishnupur-II	Bhedua-291	23.02511	87.26061
		SITA/AA/2	PAN/SITA/AA/4	Bankadaba	Piardoba	Sitarampur-122	23.02297	87.260471
		SITA/AA/4	PAN/SITA/AA/5	Bankadaba	Piardoba	Sitarampur-122	23.02304	87.26049
		SITA/AA/14	PAN/SITA/AA/6	Bankadaba	Piardoba	Sitarampur-122	23.02354	87.26117
		SITA/AA/18	PAN/SITA/AA/7	Bankadaba	Piardoba	Sitarampur-122	23.02254	87.26102
		SITA/AA/28	PAN/SITA/AA/8	Bankadaba	Piardoba	Sitarampur-122	23.02113	87.2611
		SITA/AA/51	PAN/SITA/AA/9	Bankadaba	Piardoba	Sitarampur-122	23.02243	87.26115
		SITA/AA/52	PAN/SITA/AA/10	Bankadaba	Piardoba	Sitarampur-122	23.02091	87.26597
		SITA/AA/59	PAN/SITA/AA/11	Bankadaba	Piardoba	Sitarampur-122	23.02236	87.26094
		SITA/AA/60	PAN/SITA/AA/12	Bankadaba	Piardoba	Sitarampur-122	23.02271	87.2607
		BHED/AA/1	PAN/BHED/AA/13	Bishnupur	Bishnupur-II	Bhedua-291	23.02499	87.26029
		BHED/AA/9	PAN/BHED/AA/14	Bishnupur	Bishnupur-II	Bhedua-291	23.02589	87.26032
		BHED/AA/16	PAN/BHED/AA/15	Bishnupur	Bishnupur-II	Bhedua-291	23.02511	87.26061

		SITA/AA/1	PAN/SITA/AA/16	Bankadaba	Piardoba	Sitarampur-122	23.02317	87.26023
		SITA/AA/3	PAN/SITA/AA/17	Bankadaba	Piardoba	Sitarampur-122	23.02273	87.26107
		SITA/AA/5	PAN/SITA/AA/18	Bankadaba	Piardoba	Sitarampur-122	23.02341	87.26058
		SITA/AA/6	PAN/SITA/AA/19	Bankadaba	Piardoba	Sitarampur-122	23.02312	87.26048
		SITA/AA/7	PAN/SITA/AA/20	Bankadaba	Piardoba	Sitarampur-122	23.023124	87.26052
		SITA/AA/8	PAN/SITA/AA/21	Bankadaba	Piardoba	Sitarampur-122	23.02263	87.26038
		SITA/AA/10	PAN/SITA/AA/22	Bankadaba	Piardoba	Sitarampur-122	23.0228	87.26047
		SITA/AA/12	PAN/SITA/AA/23	Bankadaba	Piardoba	Sitarampur-122	23.02336	87.26077
		SITA/AA/13	PAN/SITA/AA/24	Bankadaba	Piardoba	Sitarampur-122	23.02352	87.261124
		SITA/AA/15	PAN/SITA/AA/25	Bankadaba	Piardoba	Sitarampur-122	23.02313	87.26062
		SITA/AA/16	PAN/SITA/AA/26	Bankadaba	Piardoba	Sitarampur-122	23.02304	87.26096
		SITA/AA/17	PAN/SITA/AA/27	Bankadaba	Piardoba	Sitarampur-122	23.02286	87.26091
		SITA/AA/20	PAN/SITA/AA/29	Bankadaba	Piardoba	Sitarampur-122	23.023	87.26123
		SITA/AA/21	PAN/SITA/AA/30	Bankadaba	Piardoba	Sitarampur-122	23.02368	87.26161
		SITA/AA/22	PAN/SITA/AA/31	Bankadaba	Piardoba	Sitarampur-122	23.02331	87.26335
		SITA/AA/23	PAN/SITA/AA/32	Bankadaba	Piardoba	Sitarampur-122	23.02318	87.26352
		SITA/AA/25	PAN/SITA/AA/33	Bankadaba	Piardoba	Sitarampur-122	23.02279	87.26505
		SITA/AA/29	PAN/SITA/AA/34	Bankadaba	Piardoba	Sitarampur-122	23.02193	87.26592
		SITA/AA/31	PAN/SITA/AA/35	Bankadaba	Piardoba	Sitarampur-122	23.02085	87.26554
		SITA/AA/33	PAN/SITA/AA/36	Bankadaba	Piardoba	Sitarampur-122	23.02118	87.26543
		SITA/AA/34	PAN/SITA/AA/37	Bankadaba	Piardoba	Sitarampur-122	23.02117	87.26529
		SITA/AA/37	PAN/SITA/AA/38	Bankadaba	Piardoba	Sitarampur-122	23.02138	87.26512
		SITA/AA/38	PAN/SITA/AA/39	Bankadaba	Piardoba	Sitarampur-122	23.02124	87.265
		SITA/AA/39	PAN/SITA/AA/40	Bankadaba	Piardoba	Sitarampur-122	23.02107	87.26501
		SITA/AA/41	PAN/SITA/AA/41	Bankadaba	Piardoba	Sitarampur-122	23.02222	87.26148
		SITA/AA/42	PAN/SITA/AA/42	Bankadaba	Piardoba	Sitarampur-122	23.02124	87.26493
		SITA/AA/43	PAN/SITA/AA/43	Bankadaba	Piardoba	Sitarampur-122	23.02127	87.26486
		SITA/AA/45	PAN/SITA/AA/44	Bankadaba	Piardoba	Sitarampur-122	23.02119	87.2641
		SITA/AA/47	PAN/SITA/AA/45	Bankadaba	Piardoba	Sitarampur-122	23.02123	87.26373
		SITA/AA/49	PAN/SITA/AA/46	Bankadaba	Piardoba	Sitarampur-122	23.02243	87.26135
		SITA/AA/50	PAN/SITA/AA/47	Bankadaba	Piardoba	Sitarampur-122	23.0225	87.26118
		SITA/AA/54	PAN/SITA/AA/48	Bankadaba	Piardoba	Sitarampur-122	23.02353	87.25959
		SITA/AA/55	PAN/SITA/AA/49	Bankadaba	Piardoba	Sitarampur-122	23.02341	87.25965
		SITA/AA/56	PAN/SITA/AA/50	Bankadaba	Piardoba	Sitarampur-122	23.02342	87.25982
		SITA/AA/57	PAN/SITA/AA/51	Bankadaba	Piardoba	Sitarampur-122	23.0233	87.26012
		SITA/AA/58	PAN/SITA/AA/52	Bankadaba	Piardoba	Sitarampur-122	23.02328	87.26016

2.K Purbi Mednipur division

In Panchet division, 01 trees have been marked as plus trees and 6 trees as candidate plus trees (2.K.1). Recorded location details of plus trees and candidate plus trees are presented in table 2.K.2 and 2.K.3 respectively.

Table. 2.K.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Purbi Mednipur Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acacia auriculiformis*	01	06
	Total	**01**	**06**

Table 2.K.2 Location Details of Screened Plus Trees in Purbi Mednipur Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	01	KHAD/AA/1	PM/CON/AA/1(P)	Contai	Digha	Khdal Gobra	22.624722	87.520556

Table 2.K.3 Location Details of Screened Candidate Plus Trees in Purbi Mednipur Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acacia auriculiformis	06	KHAD/AA/2	PM/CON/AA/2	Contai	Digha	Khdal Gobra	22.624780	87.520545
		KHAD/AA/4	PM/CON/AA/4	Contai	Digha	Khdal Gobra	22.624925	87.520510
		KHAD/AA/7	PM/CON/AA/7	Contai	Digha	Khdal Gobra	22.624685	87.520490
		KHAD/AA/11	PM/CON/AA/10	Contai	Digha	Khdal Gobra	22.624728	87.520610
		KHAD/AA/14	PM/CON/AA/13	Contai	Digha	Khdal Gobra	22.624640	87.520570
		KHAD/AA/15	PM/CON/AA/14	Contai	Digha	Khdal Gobra	22.624710	87.520460

2.L. Purulia Division

In Purulia division, 120 trees have been marked as plus trees (19) and candidate plus trees (101) after evaluation of existing trees and selection of new candidate plus trees (Table 2.L.1, 2.L.2 & 2.L.3).

Table. 2.L.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Purulia Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Ailanthus grandis*	00	04
2.	*Azadirachta indica*	04	08
3.	*Bombax ceiba*	03	07
4.	*Buchanania cochinchinensis*	03	18
5.	*Lagerstroemia parviflora*	00	04
6.	*Madhuca latifolia*	01	06
7.	*Syzygium cumini*	00	03
8.	*Soymida febrifuga*	06	36
9.	*Terminalia arjuna*	01	09
10.	*Terminalia bellirica*	01	06
	Total	**19**	**101**

Table 2.L.2 Location Details of Screened Plus Trees inPurulia Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Azadirachta indica	04	ARGH/AI/4	PL/PL/AI/1(P)	Purulia	Raghabpur	Raghabpur	23.34487	86.35654
		ARGH/AI/5	PL/PL/AI/2(P)	Purulia	Raghabpur	Raghabpur	23.34541	86.35653
		ARGH/AI/8	PL/AR/AI/3(P)	Arsa	Arsa	Arasa	23.322667	86.157700
		BAGM/AI/1	PL/BG/AI/4(P)	Bagmundi	Bagmundi	Bagmundi	23.1918	86.05265
Bombax ceiba	03	MATHA/BC/1	PL/MT/BC/1(P)	Matha	Pardi	Digardi	23.11157	86.11216
		BAGM/BC/1	PL/BG/BC/2(P)	Bagmundi	Bagmundi	Bagmundi	23.19129	86.05302
		ECHA/BC/1	PL/BG/BC/3(P)	Balrampur	Balrampur	Echadi	23.0787	86.16199
Buchanania cochinchinensis	03	KHUD/BL/13	PL/MT/BC/1(P)	Matha	Matha	Khudidi	23.11467	86.12133
		KHUD/BL/22	PL/MT/BC/2(P)	Matha	Matha	Khudidi	23.11383	86.12164
		NISC/BL/14	PL/BG/BC/3(P)	Baghmundi	Baghmundi	Nischintapur	23.23065	86.0143
Madhuca latifolia	01	KHUD/ML/1	PL/MT/ML/1(P)	Matha	Matha	Khudidi	23.11936	86.11793
Soymida febrifuga	06	KHUD/SF/54	PL/MT/SF/1(P)	Matha	Matha	Khudidi	23.11443	86.11954
		KHUD/SF/55	PL/MT/SF/2(P)	Matha	Matha	Khudidi	23.11385	86.11911
		KHUD/SF/59	PL/MT/SF/3(P)	Matha	Matha	Khudidi	23.11341	86.11959
		KHUD/SF/62	PL/MT/SF/4(P)	Matha	Matha	Khudidi	23.11248	86.11996
		KHUD/SF/65	PL/MT/SF/5(P)	Matha	Matha	Khudidi	23.1113	86.12041
		KHUD/SF/66	PL/MT/SF/6(P)	Matha	Matha	Khudidi	23.11143	86.12051
Terminalia arjuna	01	BANS/TA/42	PL/MT/TA/1	Matha	Pardi	Banshitar	23.10779	86.2679
Terminalia bellirica	01	CHAU/TB/7	PL/MT/TB/4	Matha	Pardi	Chauria	23.1201	86.13252

Table 2.L.3 Location Details of Screened Candidate Plus Trees in Purulia Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Ailanthus grandis	04	ARS/AG/1	PL/AR/AG/1	Arsa	Arsa	Arasa	23.322433	86.157417
		ARS/AG/2	PL/AR/AG/2	Arsa	Arsa	Arasa	23.322583	86.157433
		ARS/AG/3	PL/AR/AG/3	Arsa	Arsa	Arasa	23.322650	86.157450
		ARS/AG/4	PL/AR/AG/4	Arsa	Arsa	Arasa	23.322650	86.157450
Azadirachta indica	08	ARGH/AI/1	PL/AR/AI/1	Arsa	Arsa	Arasa	23.322433	86.157483
		ARGH/AI/2	PL/AR/AI/2	Arsa	Arsa	Arasa	23.322433	86.157533
		ARGH/AI/4	PL/AR/AI/3	Arsa	Arsa	Arasa	23.322467	86.157550
		ARGH/AI/7	PL/AR/AI/4	Arsa	Arsa	Arasa	23.322700	86.157517
		ARGH/AI/10	PL/AR/AI/5	Arsa	Arsa	Arasa	23.322817	86.157800

		ARGH/AI/9	PL/PL/AI/6	Purulia	Raghabpur	Raghabpur	**23.34509**	**86.35558**
		BAGM/AI/2	PL/BG/AI/7	Baghmundi	Baghmundi	Nischintapur	23.7917	86.05277
		ARGH/AI/1	PL/AR/AI/8	Arsa	Arsa	Arsa	23.3224	86.15751
Bombax ceiba	07	MATHA/BC/2	PL/MT/BC/1	Matha	Pardi	Digardi	23.11154	86.11233
		MATHA/BC/3	PL/MT/BC/2	Matha	Pardi	Digardi	23.11154	86.11237
		BAGM/BC/2	PL/BG/BC/3	Baghmundi	Baghmundi	Baghmundi	23.19135	86.05289
		ECHA/BC/2	PL/BP/BC/4	Balrampur	Balrampur	Echadi	23.07839	86.16188
		ECHA/BC/3	PL/BP/BC/5	Balrampur	Balrampur	Echadi	23.07834	86.16184
		ECHA/BC/4	PL/BP/BC/6	Balrampur	Balrampur	Echadi	23.07888	86.16144
		ECHA/BC/5	PL/BP/BC/7	Balrampur	Balrampur	Echadi	23.07906	86.16187
Buchanania cochinchinensis	18	**KHUD/BL/2**	PL/MT/BCC/1	Matha	Matha	Khudidi	23.1145	86.12072
		KHUD/BL/4	PL/MT/BCC/2	Matha	Matha	Khudidi	23.1145	86.12101
		KHUD/BL/6	PL/MT/BCC/3	Matha	Matha	Khudidi	23.11321	86.1206
		KHUD/BL/8	PL/MT/BCC/4	Matha	Matha	Khudidi	23.11466	86.12111
		KHUD/BL/9	PL/MT/BCC/5	Matha	Matha	Khudidi	23.11477	86.1212
		KHUD/BL/12	PL/MT/BCC/6	Matha	Matha	Khudidi	23.11466	86.1213
		KHUD/BL/17	PL/MT/BCC/7	Matha	Matha	Khudidi	23.11418	86.12141
		KHUD/BL/18	PL/MT/BCC/8	Matha	Matha	Khudidi	23.11411	86.12141
		KHUD/BL/24	PL/MT/BCC/9	Matha	Matha	Khudidi	23.11387	86.12109
		KHUD/BL/17	PL/MT/BCC/10	Matha	Matha	Khudidi	23.11365	86.12127
		KHUD/BL/23	PL/MT/BCC/11	Matha	Matha	Khudidi	23.1134	86.12124
		KHUD/BL/21	PL/MT/BCC/12	Matha	Matha	Khudidi	23.11385	86.12135
		NISC/BL/2	PL/BG/BCC/13	Baghmundi	Baghmundi	Nischintapur	23.23011	86.0141
		NISC/BL/3	PL/BG/BCC/14	Baghmundi	Baghmundi	Nischintapur	23.2301	86.01416
		NISC/BL/5	PL/BG/BCC/15	Baghmundi	Baghmundi	Nischintapur	23.23004	86.01381
		NISC/BL/10	PL/BG/BCC/16	Baghmundi	Baghmundi	Nischintapur	23.23042	86.01416
		NISC/BL/17	PL/BG/BCC/17	Baghmundi	Baghmundi	Nischintapur	23.23071	86.01434
		NISC/BL/18	PL/BG/BCC/18	Baghmundi	Baghmundi	Nischintapur	23.23082	86.01443
Lagerstroemia parviflora	04	ECHA/LP/1	PL/BP/BCC/1	Balrampur	Balrampur	Echadi	23.07897	86.16245
		ECHA/LP/2	PL/BP/BCC/2	Balrampur	Balrampur	Echadi	23.07906	86.1626
		ECHA/LP/3	PL/BP/BCC/3	Balrampur	Balrampur	Echadi	23.07907	86.16259
		ECHA/LP/4	PL/BP/BCC/4	Balrampur	Balrampur	Echadi	23.07922	86.16255
Madhuca latifolia	06	KHUD/ML/3	PL/MT/ML/1	Matha	Matha	Khudidi	23.9932	86.11799
		KHUD/ML/4	PL/MT/ML/2	Matha	Matha	Khudidi	23.11915	86.11785
		KHUD/ML/5	PL/MT/ML/3	Matha	Matha	Khudidi	23.11913	86.11783
		KHUD/ML/6	PL/MT/ML/4	Matha	Matha	Khudidi	23.11933	86.11802
		KHUD/ML/7	PL/MT/ML/5	Matha	Matha	Khudidi	23.11924	86.11819
		KHUD/ML/8	PL/MT/ML/6	Matha	Matha	Khudidi	23.11919	86.11874

Syzygium cumini	03	BANS/SC/2	PL/MT/SC/1	Matha	Pardi	Digardi	23.11267	86.11086
		BANS/SC/4	PL/MT/SC/2	Matha	Pardi	Digardi	23.11134	86.11319
		CHAU/SC/1	PL/MT/SC/3	Matha	Pardi	Digardi	23.11757	86.11392
Soymida febrifuga	36	KHUD/SF/3	PL/MT/SF/1	Matha	Matha	Khudidi	23.11344	86.12005
		KHUD/SF/7	PL/MT/SF/2	Matha	Matha	Khudidi	23.11315	86.1205
		KHUD/SF/8	PL/MT/SF/3	Matha	Matha	Khudidi	23.1131	86.12006
		KHUD/SF/11	PL/MT/SF/4	Matha	Matha	Khudidi	23.11322	86.12022
		KHUD/SF/14	PL/MT/SF/5	Matha	Matha	Khudidi	23.11282	86.12046
		KHUD/SF/15	PL/MT/SF/6	Matha	Matha	Khudidi	23.11278	86.12053
		KHUD/SF/16	PL/MT/SF/7	Matha	Matha	Khudidi	23.11264	86.1206
		KHUD/SF/17	PL/MT/SF/8	Matha	Matha	Khudidi	23.11274	86.12052
		KHUD/SF/21	PL/MT/SF/9	Matha	Matha	Khudidi	23.11283	86.12065
		KHUD/SF/22	PL/MT/SF/10	Matha	Matha	Khudidi	23.1129	86.12062
		KHUD/SF/27	PL/MT/SF/11	Matha	Matha	Khudidi	23.11326	86.12073
		KHUD/SF/31	PL/MT/SF/12	Matha	Matha	Khudidi	23.11333	86.12085
		KHUD/SF/35	PL/MT/SF/13	Matha	Matha	Khudidi	23.11403	86.12062
		KHUD/SF/44	PL/MT/SF/14	Matha	Matha	Khudidi	23.11457	86.12053
		KHUD/SF/45	PL/MT/SF/15	Matha	Matha	Khudidi	23.11446	86.1205
		KHUD/SF/46	PL/MT/SF/16	Matha	Matha	Khudidi	23.11471	86.12069
		KHUD/SF/47	PL/MT/SF/17	Matha	Matha	Khudidi	23.1152	86.12045
		KHUD/SF/49	PL/MT/SF/18	Matha	Matha	Khudidi	23.11501	86.12008
		KHUD/SF/50	PL/MT/SF/19	Matha	Matha	Khudidi	23.11509	86.11991
		KHUD/SF/51	PL/MT/SF/20	Matha	Matha	Khudidi	23.11463	86.11944
		KHUD/SF/53	PL/MT/SF/21	Matha	Matha	Khudidi	23.11438	86.11973
		KHUD/SF/56	PL/MT/SF/22	Matha	Matha	Khudidi	23.11419	86.11989
		KHUD/SF/57	PL/MT/SF/23	Matha	Matha	Khudidi	23.11373	86.11971
		KHUD/SF/58	PL/MT/SF/24	Matha	Matha	Khudidi	23.11355	86.1199
		KHUD/SF/60	PL/MT/SF/25	Matha	Matha	Khudidi	23.11316	86.11987
		KHUD/SF/63	PL/MT/SF/26	Matha	Matha	Khudidi	23.11142	86.1209
		KHUD/SF/67	PL/MT/SF/27	Matha	Matha	Khudidi	23.11116	86.12054
		KHUD/SF/69	PL/MT/SF/28	Matha	Matha	Khudidi	23.11159	86.12046
		KHUD/SF/70	PL/MT/SF/29	Matha	Matha	Khudidi	23.1116	86.12033
		KHUD/SF/71	PL/MT/SF/30	Matha	Matha	Khudidi	23.11176	86.12054
		KHUD/SF/73	PL/MT/SF/31	Matha	Matha	Khudidi	23.11194	86.12029
		KHUD/SF/74	PL/MT/SF/32	Matha	Matha	Khudidi	23.1122	86.12029
		KHUD/SF/76	PL/MT/SF/33	Matha	Matha	Khudidi	23.11194	86.12029
		KHUD/SF/77	PL/MT/SF/34	Matha	Matha	Khudidi	23.1122	86.12029
		KHUD/SF/78	PL/MT/SF/35	Matha	Matha	Khudidi	23.11194	86.12029

		KHUD/SF/81	PL/MT/SF/36	Matha	Matha	Khudidi	23.11232	86.12061
Terminalia arjuna	09	BANS/TA/10	PL/MT/TA/1	Matha	Pardi	Banshitar	23.10919	86.12528
		BANS/TA/14	PL/MT/TA/2	Matha	Pardi	Banshitar	23.10916	86.1254
		BANS/TA/22	PL/MT/TA/3	Matha	Pardi	Banshitar	23.10746	86.12592
		BANS/TA/23	PL/MT/TA/4	Matha	Pardi	Banshitar	23.10737	86.12601
		BANS/TA/35	PL/MT/TA/5	Matha	Pardi	Banshitar	23.10735	86.12662
		BANS/TA/36	PL/MT/TA/6	Matha	Pardi	Banshitar	23.10778	86.12664
		BANS/TA/47	PL/MT/TA/7	Matha	Pardi	Banshitar	23.10797	86.12661
		BANS/TA/53	PL/MT/TA/8	Matha	Pardi	Banshitar	23.10779	86.12612
		BANS/TA/54	PL/MT/TA/9	Matha	Pardi	Banshitar	23.10773	86.1209
Terminalia bellirica	06	CHAU/TB/1	PL/MT/TB/1	Matha	Pardi	Chauria	23.11923	86.13248
		CHAU/TB/3	PL/MT/TB/2	Matha	Pardi	Chauria	23.11941	86.13232
		CHAU/TB/6	PL/MT/TB/3	Matha	Pardi	Chauria	23.11999	86.13241
		CHAU/TB/8	PL/MT/TB/4	Matha	Pardi	Chauria	23.12013	86.13249
		CHAU/TB/9	PL/MT/TB/5	Matha	Pardi	Chauria	23.1205	86.13361
		CHAU/TB/12	PL/MT/TB/6	Matha	Pardi	Chauria	23.11954	86.13235

2.M. Roopnarayan Division

Only 1 new candidate tree was selected in the division. No existing tree was located in the division. Abstract along with location details are presented in Table 2.M.1 and 2.M.2 respectively.

Table. 2.M.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kangsawati (South) Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Pterocarpus santalinus*	0	01

Table 2.M.2 List of screened *selected new* Candidate Plus Trees in Roopnarayanpur Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Pterocarpus santalinus	01	RN/MN/PS/1	**RP/ML/PS/1**	Mahalisha	Mahalisha 2	Mahalisha	22.708517	87.175783

3. Silviculture Hill Circle

237 plus trees and 300 candidate plus trees have been screened from evaluation of existing plus trees and candidate plus trees and selection of new candidate plus trees and/or plus trees in Silviculture Hill Circle. Trees have been marked in 5 division and geo-referred co-ordinates have been collected for the individual tree.Division wise details are as follow:

3.A Darjeeling GTA Division

In Darjeeling GTA Division, in totality 8 trees were marked, including 6 plus trees and 4 candidate plus trees (Table 3.A.1). Location details of the same are presented in table 3.A.2 and 3.A.3.

Table. 3.A.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Darjeeling GTA Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Betula alnoides*	01	00
2.	*Bombax Ceiba*	01	00
3.	*Bucklandia Populnea*	01	03
4.	*Cupressus Cashmeriana*	01	01
5.	*Paulownia fortune*	01	00
6.	*Schima Wallichii*	01	00
7.	**Total**	**06**	**04**

Table 3.A.2 Location Details of Screened Plus TreesinDarjeeling GTA

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Betula alnoides	01	MPLOT/BA/10	DJ(GTA)/KP/BA/1(P)	Kalimpong	Kalimpong	M-plot	27.090883	88.774050
Bombax Ceiba	01	CPLOT/BC/1	DJ(GTA)/KP/BC/1(P)	Kalimpong	Kalimpong	M-plot	27.086267	88.761667
Bucklandia Populnea	01	MPLOT/BP/10	DJ(GTA)/KP/BP/1(P)	Kalimpong	Kalimpong	M-plot	27.086267	88.761667
Cupressus Cashmeriana	01	MPLOT/CC/4	DJ(GTA)/KP/CC/1(P)	Kalimpong	Kalimpong	M-plot	27.082250	88.762133
Paulownia fortune	01	MPLO/PF/1	DJ(GTA)/KP/PF/1(P)	Kalimpong	Kalimpong	M-plot	27.092083	88.774250
Schima Wallichii	01	MPLOT/SW/15	DJ(GTA)/KP/SW/1(P)	Kalimpong	Kalimpong	M-plot	27.091717	88.773083

Table 3.A.3 Location Details of Screened Candidate Plus TreesinDarjeeling GTA

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Bucklandia Populnea	03	MPLOT/BP/9	DJ(GTA)/KP/BP/1	Kalimpong	Kalimpong	M-plot	27.091067	88.774800
		MPLOT/BP/5	DJ(GTA)/KP/BP/2	Kalimpong	Kalimpong	M-plot	27.090933	88.774867
		MPLOT/BP/8	DJ(GTA)/KP/BP/3	Kalimpong	Kalimpong	M-plot	27.091367	88.774833
Cupressus Cashmeriana	01	MPLOT/CC/5	DJ(GTA)/KP/CC/1	Kalimpong	Kalimpong	M-plot	27.081983	88.762100

3.B Darjeeling Hill Division

In Darjeeling Hill division, 59 trees have been marked as plus trees (23) and candidate plus trees (36) after evaluation of existing trees and selection of new candidate plus trees. Abstract along with location details are presented in Table 3.B.1, 3.B.2 and 3.B.3.

Table. 3.B.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Darjeeling Hill Division

Sl No.	Name of the species	No. of Plus tree	No. of Candidate Plus trees
1.	*Alnus nepalensis*	05	07
2.	*Beilschmiedia gammieana*	02	00
3.	*Bucklandia populnea*	00	05
4.	*Castanopsis hystrix*	01	00
5.	*Elaeocarpus sikkimensis*	01	00
6.	*Engelhardtia spicata*	03	00
7.	*Macaranga pustulata*	02	00
8.	*Machilus Edulis*	04	09
9.	*Michelia cathcartii*	01	00
10.	*Michelia champaca*	00	02
11.	*Nyssa javanica*	03	00
12.	*Shorea robusta*	00	02
13.	*Taxus wallichiana*	01	05
14.	*Tectona grandis*	00	06
	Total	**23**	**36**

Table 3.B.2 Location Details of Screened Plus Trees inDarjeeling Hill Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Alnus nepalensis	05	AN 1	DJ/TK/AN/1(P)	Takdah	Lopchu	Lopchu 4	27.051517	88.365383
		AN 2	DJ/TK/AN/2(P)	Takdah	Lopchu	Lopchu 4	27.051367	88.365567
		DJ/TK/AN/2	DJ/TK/AN/3(P)	Takdah	Takdah	Hum-4	27.035217	88.339250
		DJ/TK/AN/3	DJ/TK/AN/4(P)	Takdah	Takdah	Hum-4	27.036150	88.339300
		DJ/TK/AN/4	DJ/TK/AN/5(P)	Takdah	Takdah	Hum-4	27.036450	88.338967
Beilschmiedia gammieana	02	BG 1	DJ/TK/BG/1(P)	Takdah	Takdha	Lopchu	27.051233	88.366800
		BG 2	DJ/TK/BG/2(P)	Takdah	Takdha	Lopchu	27.054250	88.367450
Castanopsis hystrix	01	CH 1	DJ/TK/CH/1(P)	Takdah	Takdah	Linding 4	27.046100	88.355617
Elaeocarpus sikkimensis	01	ES 2	DJ/TK/ES/1(P)	Takdah	Takdah	Linding 4	27.048733	88.357017
Engelhardtia spicata	03	ES 1	DJ/TK/ESP/1(P)	Takdah	Takdah	Hum	27.047750	88.356933
		ES 2	DJ/TK/ESP/2(P)	Takdah	Takdah	Linding	27.047583	88.355867
		ES 3	DJ/TK/ESP/3(P)	Takdah	Takdah	Linding	27.037267	88.350800
Macaranga pustulata	02	MP 1	DJ/TK/MP/1(P)	Takdah	Takdah	Lopchu	27.051233	88.365200
		MP 2	DJ/TK/MP/2(P)	Takdah	Takdah	Lopchu	27.052550	88.364633
Machilus Edulis	04	ME 1(LINDING)	DJ/TK/ME/1(P)	Takdah	Takdha	linding 4	27.050150	88.367383
		ME1	DJ/TK/ME/2(P)	Takdah	Takdah	Lopchu	27.049533	88.367317
		ME 5	DJ/TK/ME/3(P)	Takdah	Lopchu	Lopchu 3	27.049017	88.367550
		ME 8	DJ/TK/ME/4(P)	Takdah	Lopchu	Lopchu 3	27.048733	88.367817
Michelia cathcartii	01	MC 1	DJ/TK/MC/1(P)	Takdah	Lopchu	Lopchu 4	27.050550	88.368017
Nyssa javanica	03	NJ 1	DJ/TK/NJ/1(P)	Takdah	Takdah	Linding 4	27.048233	88.355467
		NJ 4	DJ/TK/NJ/2(P)	Takdah	Takdah	Linding 4	27.040333	88.351700
		NJ 5	DJ/TK/NJ/3(P)	Takdah	Takdah	Linding 4	27.034517	88.344300
Taxus wallichiana	01	TW 8	DJ/RB/TW/1(P)	Rimbik	South Rimbik	S Rimbik 1	27.117433	88.098533

Table 3.B.3 Location Details of Screened Candidate Plus Trees inDarjeeling Hill Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Alnus nepalensis	07	DJ/TK/AN/1	DJ/TK/AN/1	Takdah	Takdah	Hum-4	27.035217	88.339250
		DJ/TK/AN/5	DJ/TK/AN/2	Takdah	Takdah	Hum-4	27.036817	88.338800
		DJ/TK/AN/6	DJ/TK/AN/3	Takdah	Takdah	Hum-4	27.036917	88.340033
		DJ/TK/AN/7	DJ/TK/AN/4	Takdah	Takdah	Hum-4	27.037300	88.338450
		DJ/TK/AN/8	DJ/TK/AN/5	Takdah	Takdah	Hum-4	27.037567	88.338600
		DJ/TK/AN/9	DJ/TK/AN/6	Takdah	Takdah	Hum-4	27.037817	88.338333
		DJ/TK/AN/10	DJ/TK/AN/7	Takdah	Takdah	Hum-4	27.037983	88.338367
Bucklandia populnea	05	DJ/TK/BP/1	DJ/TK/BP/1	Takdah	Takdah	Hum-4	27.037300	88.344917
		DJ/TK/BP/2	DJ/TK/BP/2	Takdah	Takdah	Hum-4	27.037417	88.344900
		DJ/TK/BP/3	DJ/TK/BP/3	Takdah	Takdah	Hum-4	27.037267	88.344533
		DJ/TK/BP/4	DJ/TK/BP/4	Takdah	Takdah	Hum-4	27.037317	88.344650
		DJ/TK/BP/5	DJ/TK/BP/5	Takdah	Takdah	Hum-4	27.037433	88.344367
Michelia champaca	02	DJ/SU/MC/1	DJ/SU/MC/1	Sukna	MWLS	MWLS	26.805570	88.370340
		DJ/SU/MC/2	DJ/SU/MC/2	Sukna	MWLS	MWLS	26.805570	88.370580
Machilus Edulis	09	ME 2	DJ/TK/ME/1	Takdah	Takdah	Lopchu	27.048967	88.366817
		ME 3	DJ/TK/ME/2	Takdah	Takdah	Lopchu	27.048683	88.368467
		ME 4	DJ/TK/ME/3	Takdah	Takdah	Lopchu	27.049667	88.368867
		ME 2	DJ/TK/ME/4	Takdah	Lopchu	Lopchu 3	27.049933	88.368367
		ME 3	DJ/TK/ME/5	Takdah	Lopchu	Lopchu 3	27.049883	88.368567
		ME 4	DJ/TK/ME/6	Takdah	Lopchu	Lopchu 3	27.049650	88.369750
		ME 6	DJ/TK/ME/7	Takdah	Lopchu	Lopchu 3	27.049767	88.368483
		ME 7	DJ/TK/ME/8	Takdah	Lopchu	Lopchu 3	27.048633	88.367950
		ME 9	DJ/TK/ME/9	Takdah	Lopchu	Lopchu 3	27.048383	88.367967
Shorea robusta	02	DJ/SU/SR/1	DJ/SU/SR/1	Sukna	MWLS	Sukna	26.805250	88.366570
		DJ/SU/SR/2	DJ/SU/SR/2	Sukna	MWLS	Sukna	26.803960	88.367450
Taxus wallichiana	05	TW 3	DJ/RB/TW/1	Rimbik	South Rimbik	S Rimbik 2	27.117250	88.098700
		TW 4	DJ/RB/TW/2	Rimbik	South Rimbik	S Rimbik 2	27.117267	88.098750
		TW 5	DJ/RB/TW/3	Rimbik	South Rimbik	S Rimbik 2	27.117333	88.098750
		TW 6	DJ/RB/TW/4	Rimbik	South Rimbik	S Rimbik 2	27.117417	88.098750
		TW 7	DJ/RB/TW/5	Rimbik	South Rimbik	S Rimbik 1	27.117467	88.098683
Tectona grandis	06	DJ/SU/TG/1	DJ/SU/TG/1	Sukna	Chamtha	Chamta	26.782500	88.360360
		DJ/SU/TG/2	DJ/SU/TG/2	Sukna	Chamtha	Chamta	26.78254	88.36157
		DJ/SU/TG/3	DJ/SU/TG/3	Sukna	Chamtha	Chamta	26.78382	88.36161
		DJ/SU/TG/4	DJ/SU/TG/4	Sukna	Chamtha	Chamta	26.78277	88.36265
		DJ/SU/TG/5	DJ/SU/TG/5	Sukna	Chamtha	Chamta	26.78340	88.36391
		DJ/SU/TG/6	DJ/SU/TG/6	Sukna	Chamtha	Chamta	26.78491	88.36340

3.C Darjeeling Wildlife Division

In Darjeeling Wildlife division, 77 plus trees have been screened to be retained or marked along with 97 candidate plus trees (Table 3.C.1). Geo-reffered co-ordinates were also recorded for the indivisual trees (Table 3.C.2 &3.C.3).

Table. 3.C.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Darjeeling Wildlife Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acer campbellii*	02	05
2.	*Acer hookeri*	00	01
3.	*Adina cordifolia*	00	06
4.	*Ailanthus grandis*	01	00
5.	*Albizia lebbeck*	01	02
6.	*Albizia procera*	01	02
7.	*Amoora wallichii*	02	00
8.	*Betula alnoides*	02	05
9.	*Bombax ceiba*	01	00
10.	*Canarium sikkimensis*	01	02
11.	*Chukrasia tabularis*	02	00
12.	*Cinnamomum cecidodaphne*	00	02
13.	*Cinnamomum impressinervium*	01	05
14.	*Dalbergia cultrate*	01	01
15.	*Dalbergia latifolia*	01	02
16.	*Dipterocarpus turbinatus*	01	02
17.	*Dysoxylum procerum*	01	01
18.	*Elaeocarpus ganitrus*	00	04
19.	*Elaeocarpus sikkimensis*	01	01
20.	*Emblica officinalis*	00	01
21.	*Eriobotrya petiolata*	06	00
22.	*Gmelina arborea*	01	00
23.	*Hukuse (Pterygota alata)*	00	01
24.	*Ilex godojan*	00	01
25.	*Juglans regia*	05	05
26.	*Lagerstroemia flos reginae*	12	03
27.	*Lagerstroemia hypoleuca*	01	06
28.	*Lagerstroemia parviflora*	01	00
29.	*Machilus edulis*	01	00
30.	*Magnolia campbellii*	00	01
31.	*Mangifera sylvatica*	00	04

32.	*Mesua ferrea*	02	01
33.	*Michelia cathcartii*	04	00
34.	*Michelia Champaca*	02	06
35.	*Phoebe attenuata*	01	00
36.	*Prunus napaulensis*	02	01
37.	*Pterocarpus marsupium*	01	01
38.	*Quercus lamellose*	01	04
39.	*Quercus pachyphylla*	04	06
40.	*Schima wallichii*	02	03
41.	*Shorea robusta*	00	06
42.	*Strychnos nux vomica*	00	01
43.	*Swietenia mahogany*	03	00
44.	*Tectona grandis*	01	01
45.	*Terminalia arjuna*	01	00
46.	*Terminalia bellirica*	01	00
47.	*Terminalia crenulata*	03	01
48.	*Terminalia myriocarpa*	01	01
49.	*Tsuga brunoniana*	01	01
50.	*Xylia dolabriformis*	01	01
	Total	**77**	**97**

Table 3.C.2 Location Details of Screened Plus Trees inDarjeeling Wildlife Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acer campbellii	02	SUREL/AC/6	DW/SE/AC/1(P)	Sanchel East	Sonada	Surel-1	26.969250	88.304100
		SUREL/AC/7	DW/SE/AC/2(P)	Sanchel East	Sonada	Surel-1	26.969317	88.304100
Ailanthus grandis	01	KYAN/AG/2	DW/SU/AG/1(P)	Sukna	Chamta	Kyananuka	26.795482	88.361917
Albizia lebbeck	01	PANCH/AL/1	DW/SU/AL/1(P)	Sukna	Koklong	Panchanai	26.804233	88.366650
Albizia procera	01	PANCH/AP/3	DW/SU/AP/1(P)	Sukna	Koklong	Panchanai	26.803850	88.367517
Amoora wallichii	02	KYAN/AW/3	DW/SU/AW/1(P)	Sukna	Chamta	kyananuka	26.796250	88.351233
		MOHO/AW/1	DW/SU/AW/2(P)	Sukna	Mahanadi	Mohorgaaong	26.797500	88.372350
Betula alnoides	02	KUHI/BA/9	DW/LP/BA/1(P)	10th mile	Latpanchar	Kuhi	26.884980	88.385350
		RESO/BA/1	DW/SE/BA/2(P)	Sanchel Wast	Sonada	Rishop-5	26.971033	88.319917
Bombax ceiba	01	CHAM/BC/2	DW/SU/BC/1(P)	Sukna	Chamta	Chamta	26.780767	88.366967
Canarium sikkimensis	01	SUKNA/CS/2	DW/SU/CS/1(P)	Sukna	H Q Beat	Sukna-II	26.799217	88.362767
Chukrasia tabularis	02	MOHO/CT/4	DW/SU/CT/1(P)	Sukna	Mahanadi	Mohor gaong	26.797217	88.370967
		MOHO/CT/3	DW/SU/CT/2(P)	Sukna	Mahanadi	Mohor gaong	26.794700	88.365983
Cinnamomum impressinervium	01	RAMB/CI/1	DW/SE/CI/1(P)	Sanchel East	Rambhi	Rambhi -4	26.794700	88.365983
Dalbergia cultrate	01	KYAN/DC/3	DW/SU/DC/1(P)	Sukna	Chamta	Kyananuka	26.795850	88.359567
Dalbergia latifolia	01	KYAN/DL/2	DW/SU/DL/1(P)	Sukna	Chamta	Kyananuka	26.796183	88.358367
Dipterocarpus turbinatus	01	KYAN/DT/2	DW/SU/DT/1(P)	Sukna	Chamta	Kyananuka	26.795167	88.359000
Dysoxylum procerum	01	MOHO/DP/2	DW/SU/DP/1(P)	Sukna	Mahanadi	Mohorgaong	26.797117	88.372783
Elaeocarpus sikkimensis	01	RAMB/ES/2	DW/SE/ES/1(P)	Sanchel East	Rambhi	Rambhi-4	26.973150	88.308983

Eriobotrya petiolata	06	RAMB/EP/1	DW/SE/EP/1(P)	Sanchel East	Rambhi	Rambhi-4	26.973267	88.305517
		RAMB/EP/3	DW/SE/EP/2(P)	Sanchel East	Rambhi	Rambhi-4	26.974483	88.307317
		RAMB/EP/4	DW/SE/EP/3(P)	Sanchel East	Rambhi	Rambhi-4	26.974050	88.305950
		RAMB/EP/6	DW/SE/EP/4(P)	Sanchel East	Rambhi	Rambhi-4	26.975000	88.308883
		RAMB/EP/7	DW/SE/EP/5(P)	Sanchel East	Rambhi	Rambhi-4	26.976250	88.310983
		RAMB/EP/8	DW/SE/EP/6(P)	Sanchel East	Rambhi	Rambhi-4	26.976450	88.315867
Gmelina arborea	01	MOHO/GA/1	DW/SU/GA/1(P)	Sukna	Mahanadi	Sukna	26.795450	88.362333
Juglans regia	05	RAMB/JR/1	DW/SE/JR/1(P)	Sanchel East	Rambhi	Rambhi-4	26.973817	88.305783
		RAMB/JR/2	DW/SE/JR/2(P)	Sanchel East	Rambhi	Rambhi-5	26.973900	88.305967
		RAMB/JR/3	DW/SE/JR/3(P)	Sanchel East	Rambhi	Rambhi-6	26.973950	88.305883
		RAMB/JR/4	DW/SE/JR/4(P)	Sanchel East	Rambhi	Rambhi-7	26.976217	88.315950
		RAMB/JR/5	DW/SE/JR/5(P)	Sanchel East	Rambhi	Rambhi-8	26.976500	88.315817
Lagerstroemia flos reginae	12	KYAN/LF/1	DW/SU/LF/1(P)	Sukna	Chamta	Kyananuka	26.788417	88.358050
		KYAN/LF/2	DW/SU/LF/2(P)	Sukna	Chamta	Kyananuka	26.788750	88.357400
		PANCH/LF/3	DW/SU/LF/3(P)	Sukna	Koklong	Panchnai	26.804967	88.368683
		DW/SU/LF/3	DW/SU/LF/4(P)	Sukna	MWLS	MWLS	26.804930	88.364100
		DW/SU/LF/4	DW/SU/LF/5(P)	Sukna	MWLS	MWLS	26.80484	88.36410
		DW/SU/LF/5	DW/SU/LF/6(P)	Sukna	MWLS	MWLS	26.80464	88.36343
		DW/SU/LF/6	DW/SU/LF/7(P)	Sukna	MWLS	MWLS	26.80419	88.36904
		DW/SU/LF/7	DW/SU/LF/8(P)	Sukna	MWLS	MWLS	26.80479	88.36901
		DW/SU/LF/8	DW/SU/LF/9(P)	Sukna	MWLS	MWLS	26.80470	88.36947
		DW/SU/LF/10	DW/SU/LF/10(P)	Sukna	Kaynanuka	Kaynanuka	26.79350	88.36012
		DW/SU/LF/11	DW/SU/LF/11(P)	Sukna	Kaynanuka	Kaynanuka	26.79363	88.36948
		DW/SU/LF/12	DW/SU/LF/12(P)	Sukna	Kaynanuka	Kaynanuka	26.79367	88.35890
Lagerstroemia hypoleuca	1	KYAN/LH/5	DW/SU/LH/1(P)	Sukna	Chamta	Kyananuka	26.796767	88.353567

Lagerstroemia parviflora	01	PANCH/LP/3	DW/SU/LP/1(P)	Sukna	Koklong	Panchanai	26.803967	88.366517
Machilus edulis	01	PANCH/ME/1	DW/SU/ME/1(P)	Sukna	Koklong	Panchanai	26.804033	88.366367
Mesua ferrea	02	KYAN/MF/1	DW/SU/MF/1(P)	Sukna	Chamta	Kyananuka	26.795800	88.361383
		KYAN/MF/3	DW/SU/MF/2(P)	Sukna	Chamta	Kyananuka	26.795167	88.358667
Michelia cathcartii	04	RESO/MC/9	DW/SE/MCT/1(P)	Sanchel East	Sonada	Reshop-5	26.975017	88.308867
		RESO/MC/10	DW/SE/MCT/2(P)	Sanchel East	Sonada	Reshop-5	26.975367	88.308833
		RESO/MC/11	DW/SE/MCT/3(P)	Sanchel East	Sonada	Reshop-5	26.976033	88.308883
		RESO/MC/12	DW/SE/MCT/4(P)	Sanchel East	Sonada	Reshop-5	26.976933	88.314833
Michelia Champaca	02	MOHO/MC/1	DW/SU/MC/1(P)	Sukna	Mahanadi	Mohorgaong	26.800767	88.376450
		ADAL/MC/1	DW/SU/MC/2(P)	Sukna	Chamta	Adalpur	26.779833	88.366333
Phoebe attenuata	01	PANCH/PA/11	DW/SU/PA/1(P)	Sukna	Koklong	Panchanai	26.803750	88.366617
Prunus napaulensis	02	RISO/PN/3	DW/SE/PN/1(P)	Sanchel East	Rambhi	Reshop	26.970450	88.306000
		RISO/PN/5	DW/SE/PN/2(P)	Sanchel East	Rambhi	Reshop	26.971300	88.306083
Pterocarpus marsupium	01	PANCH/PM/1	DW/SU/PM/1(P)	Sukna	Koklong	Panchanai	26.804417	88.366450
Quercus lamellose	01	RESO/QL/3	DW/SE/QL/1(P)	Sanchel West	Sonada	Rishop-5	26.972150	88.318250
Quercus pachyphylla	04	RESO/QP/2	DW/SE/QP/1(P)	Sanchel East	Rambhi	Reshop-3	26.972083	88.297817
		RAMB/QP/4	DW/SE/QP/2(P)	Sanchel East	Rambhi	Rambhi-5	26.975567	88.308900
		RAMB/QP/5	DW/SE/QP/3(P)	Sanchel East	Rambhi	Rambhi-5	26.974633	88.306267
		RESO/QP/1	DW/SE/QP/4(P)	Sanchel West	Sonada	Reshop-4	26.972217	88.304583
Schima wallichii	02	KUHI/SW/1	DW/SU/SW/1(P)	Sukna	Mahanadi	Mohorgaong	26.800767	88.377467
		MOHO/SW/1	DW/LP/SW/2(P)	10th mile	Latpanchar	Kuhi	26.884850	88.386570
Swietenia mahogany	03	KYAN/SM/1	DW/SU/SM/1(P)	Sukna	Chamta	Kyananuka	26.795833	88.359633
		SUKNA/SM/2	DW/SU/SM/2(P)	Sukna	Mahanadi	Sukna	26.797733	88.362000

		SUKNA/SM/3	DW/SU/SM/3(P)	Sukna	Chamta	Kyananuka	26.782717	88.346333
Tectona grandis	01	CHAM/TG/9	DW/SU/TG/1(P)	Sukna	Chamta	Chamta	26.775900	88.353683
Terminalia arjuna	01	SUKNA/TA/1	DW/SU/TA/1(P)	Sukna	Mahanadi	Sukna	26.780783	88.361267
Terminalia bellirica	01	MOHO/TB/1	DW/SU/TB/1(P)	Sukna	Mahanadi	Mohorgaong	26.797167	88.372283
Terminalia crenulata	03	CHAM/TT/1	DW/SU/TC/1(P)	Sukna	Chamta	Chamta	26.779067	88.365650
		CHAM/TT/2	DW/SU/TC/2(P)	Sukna	Chamta	Chamta	26.778817	88.366250
		CHAM/TT/3	DW/SU/TC/3(P)	Sukna	Chamta	Chamta	26.778833	88.350667
Terminalia myriocarpa	01	KUHI/TM/6	DW/LP/TM/1(P)	10th mile	Latpanchar	Kuhi	26.885080	88.386870
Tsuga brunoniana	01	SONA/TD/1	DW/SE/TB/1(P)	Sanchel West	Sonada	Sonada-3	26.978567	88.281950
Xylia dolabriformis	01	KYAN/XD/1	DW/SU/XD/1(P)	Sukna	Chamta	Kyananuka	26.796550	88.360633

Table 3.C.3 Location Details of Screened Candidate Plus Trees in Darjeeling Wildlife Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acer campbellii	05	RAMB/AC/1	DW/SE/AC/1	Sanchel East	Rambhi	Rambhi	26.972333	88.304717
		SUREL/AC/4	DW/SE/AC/2	Sanchel East	Sonada	Surel-1	26.969200	88.303800
		SUREL/AC/5	DW/SE/AC/3	Sanchel East	Sonada	Surel-1	26.969250	88.303950
		SUREL/AC/8	DW/SE/AC/4	Sanchel East	Sonada	Surel-1	26.969483	88.304050
		SUREL/AC/9	DW/SE/AC/5	Sanchel East	Sonada	Surel-1	26.969583	88.304100
Acer hookeri	01	RISO/AH/1	DW/SE/AH/1	Sanchel East	Sonada	Rishop-5	26.974817	88.308917
Adina cordifolia	06	ADAL/AC/1	DW/SU/ACF/1	Sukna	Chamta	Adalpur	26.780033	88.352100
		ADAL/AC/2	DW/SU/ACF/2	Sukna	Chamta	Adalpur	26.781300	88.351983
		ADAL/AC/3	DW/SU/ACF/3	Sukna	Chamta	Adalpur	26.780000	88.351333
		ADAL/AC/4	DW/SU/ACF/4	Sukna	Chamta	Adalpur	26.781333	88.351217
		ADAL/AC/5	DW/SU/ACF/5	Sukna	Chamta	Adalpur	26.781100	88.351333
		ADAL/AC/6	DW/SU/ACF/6	Sukna	Chamta	Adalpur	26.781283	88.351067
Albizia lebbeck	02	ADAL/AL/1	DW/SU/AL/1	Sukna	Chamta	Adalpur	26.783933	88.351000
		ADAL/AL/2	DW/SU/AL/2	Sukna	Chamta	Adalpur	26.781667	88.352383
Albizia procera	02	ADAL/AP/1	DW/SU/AP/1	Sukna	Chamta	Adalpur	26.780967	88.352067
		ADAL/AP/2	DW/SU/AP/2	Sukna	Chamta	Adalpur	26.782833	88.352178
Betula alnoides	05	KUHI/BA/8	DW/LP/BA/1	10th mile	Latpanchar	Kuhi	26.884960	88.385540
		RESO/BA/2	DW/SW/BA/2	Sanchel West	Sonada	Rishop-5	26.971217	88.319450
		RESO/BA/3	DW/SW/BA/3	Sanchel West	Sonada	Rishop-5	26.972183	88.320333
		RESO/BA/4	DW/SW/BA/4	Sanchel West	Sonada	Rishop-5	26.972250	88.320333
		RESO/BA/5	DW/SW/BA/5	Sanchel West	Sonada	Rishop-5	26.972333	88.321950
Canarium sikkimensis	02	KYAN/CS/1	DW/SU/CS/1	Sukna	Chamta	kyananuka	26.795550	88.361733
		SUKNA/CS/1	DW/WR/CS/2	West	H Q Beat	Sukna-II	26.799717	88.363083

				Range				
Cinnamomum cecidodaphne	02	KYAN/CC/1	DW/SU/CC/1	Sukna	Chamta	Kyananuka	26.795583	88.358983
		PANC/CC/1	DW/WR/CC/2	West Range	H Q Beat	Panchanai	26.806933	88.365117
Cinnamomum impressinervium	05	RISO/CI/1	DW/SW/CI/1	Sanchel West	Sonada	Rishop-2	26.970600	88.307217
		RISO/CI/2	DW/SW/CI/2	Sanchel West	Sonada	Rishop-2	26.970450	88.306600
		RISO/CI/3	DW/SW/CI/3	Sanchel West	Sonada	Rishop-2	26.970383	88.305667
		RISO/CI/4	DW/SW/CI/4	Sanchel West	Sonada	Rishop-2	26.970267	88.305567
		RISO/CI/5	DW/SW/CI/5	Sanchel West	Sonada	Rishop-2	26.970333	88.304383
Dalbergia cultrate	01	KYAN/DC/2	DW/SU/DC/1	Sukna	Chamta	Kyananuka	26.795950	88.359633
Dalbergia latifolia	02	ADAL/DL/1	DW/SU/DL/1	Sukna	Chamta	Adalpur	26.780550	88.351717
		ADAL/DL/2	DW/SU/DL/2	Sukna	Chamta	Adalpur	26.780683	88.351817
Dipterocarpus turbinatus	02	KYAN/DT/1	DW/SU/DT/1	Sukna	Chamta	Kyananuka	26.795533	88.359650
		KYAN/DT/3	DW/SU/DT/2	Sukna	Chamta	Kyananuka	26.795467	88.357850
Dysoxylum procerum	01	MOHO/DP/1	DW/SU/DP/1	Sukna	Mahanadi	Mohorgaong	26.796433	88.373150
Elaeocarpus ganitrus	04	KYAN/EG/1	DW/SU/EG/1	Sukna	Chamta	Kyananuka	26.795733	88.359483
		KYAN/EG/2	DW/SU/EG/2	Sukna	Chamta	Kyananuka	26.795833	88.359350
		KYAN/EG/4	DW/SU/EG/3	Sukna	Chamta	Kyananuka	26.795300	88.359617
		KYAN/EG/5	DW/SU/EG/4	Sukna	Chamta	Kyananuka	26.795350	88.359767
Elaeocarpus sikkimensis	01	RAMB/ES/1	DW/SE/ES/1	Sanchel East	Rambhi	Rambhi-4	26.973117	88.308983
Emblica officinalis	01	KYAN/EO/1	DW/SU/EO/1	Sukna	Chamta	Kyananuka	26.794483	88.357217
Hukuse (Pterygota alata)	01	KYAN/1	DW/SU/PA/1	Sukna	Chamta	Kyananuka	26.795233	88.357883
Ilex godojan	01	KYAN/1	DW/SU/IG/1	Sukna	Chamta	Kyananuka	26.796667	88.360067
Juglans regia	05	RISO/JR/1	DW/SE/JR/1	Sanchel East	Sonada	Rishop-5	26.971583	88.319567
		RISO/JR/2	DW/SE/JR/2	Sanchel East	Sonada	Rishop-5	26.971550	88.319817
		RISO/JR/3	DW/SE/JR/3	Sanchel East	Sonada	2Rishop-5	26.972583	88.319867
		RISO/JR/4	DW/SE/JR/4	Sanchel East	Sonada	Rishop-5	26.972517	88.320083

		RISO/JR/5	DW/SE/JR/5	Sanchel E	Sonada	Rishop-5	26.972117	88.320283
Lagerstroemia flos reginae	03	DW/SU/LF/1	DW/SU/LF/1	Sukna	MWLS	MWLS	26.80559	88.36646
		DW/SU/LF/2	DW/SU/LF/2	Sukna	MWLS	MWLS	26.80530	88.36550
		DW/SU/LF/9	DW/SU/LF/3	Sukna	Kaynanuka	Kaynanuka	26.79458	88.36085
Lagerstroemia hypoleuca	06	KYAN/LH/1	DW/SU/LH/1	Sukna	Chamta	Kyananuka	26.797000	88.353800
		KYAN/LH/3	DW/SU/LH/2	Sukna	Chamta	Kyananuka	26.796817	88.353317
		KYAN/LH/6	DW/SU/LH/3	Sukna	Chamta	Kyananuka	26.796767	88.353517
		KYAN/LH/7	DW/SU/LH/4	Sukna	Chamta	Kyananuka	26.780017	88.353467
		KYAN/LH/10	DW/SU/LH/5	Sukna	Chamta	Kyananuka	26.796333	88.353850
		KYAN/LH/11	DW/SU/LH/6	Sukna	Chamta	Kyananuka	26.796217	88.353450
Magnolia campbellii	01	RISO/MC/1	DW/SW/MC/1	Sanchel West	Sonada	Rishop-2	26.968067	88.305600
Mangifera sylvatica	04	UCHA/MS/1	DW/SU/MS/1	Sukna	Gulma	Upper Champasari	26.823617	88.427100
		UCHA/MS/2	DW/SU/MS/2	Sukna	Gulma	Lower Champasari	26.814700	88.414233
		CHUK/MS/3	DW/SU/MS/3	Sukna	Gulma	Chullung	26.814683	88.412267
		PANC/MS/4	DW/WR/MS/4	West Range	H Q Beat	Panchanai	26.802100	88.368200
Mesua ferrea	01	KYAN/MF/2	DW/SU/MF/1	Sukna	Chamta	Kyananuka	26.795633	88.360567
Michelia Champaca	06	HATI/MC/4	DW/SU/MCH/1	Sukna	Mahanadi	Hatisar	26.799817	88.376183
		HATI/MC/5	DW/SU/MCH/2	Sukna	Mahanadi	Hatisar	26.799817	88.375833
		HATI/MC/6	DW/SU/MCH/3	Sukna	Mahanadi	Hatisar	26.799283	88.376200
		MOHO/MC/2	DW/SU/MCH/4	Sukna	Mahanadi	Mohorgaong	26.802300	88.375617
		MOHO/MC/3	DW/SU/MCH/5	Sukna	Mahanadi	Mohorgaong	26.808333	88.376500
		ADAL/MC/2	DW/SU/MCH/6	Sukna	Chamta	Adalpur	26.779683	88.366467
Prunus napaulensis	01	RISO/PN/4	DW/SE/PN/1	Sanchel East	Rambhi	Reshop	26.976245	88.305933
Pterocarpus marsupium	01	PANC/PM/1	DW/WR/PM/1	West Range	H Q Beat	Panchanai	26.804467	88.366967
Quercus lamellose	04	RESO/QL/1	DW/SW/QL/1	Sanchel West	Sonada	Rishop-5	26.972550	88.318650
		RESO/QL/2	DW/SW/QL/2	Sanchel West	Sonada	Rishop-5	26.972183	88.318200
		RESO/QL/4	DW/SW/QL/3	Sanchel West	Sonada	Rishop-5	26.971550	88.319933
		RESO/QL/5	DW/SW/QL/4	Sanchel West	Sonada	Rishop-5	26.971700	88.319817

Quercus pachyphylla	06	RESO/QP/1	DW/SE/QP/1	Sanchel East	Rambhi	Reshop-3	26.972250	88.298300
		RESO/QP/3	DW/SE/QP/2	Sanchel East	Rambhi	Reshop-3	26.971983	88.297733
		RESO/QP/4	DW/SE/QP/3	Sanchel East	Rambhi	Reshop-3	26.971817	88.297600
		RESO/QP/5	DW/SE/QP/4	Sanchel East	Rambhi	Reshop-3	26.971717	88.297500
		RESO/QP/2	DW/SE/QP/5	Sanchel West	Sonada	Rishop-4	26.972283	88.304567
		RESO/QP/3	DW/SE/QP/6	Sanchel West	Sonada	Rishop-4	26.972783	88.304933
Schima wallichii	03	KUHI/SW/2	DW/LP/SW/1	10th mile	Latpanchar	Kuhi	26.885050	88.386780
		ADAL/SW/1	DW/LP/SW/2	Sukna	Chamta	Adalpur	26.781433	88.350345
		ADAL/SW/2	DW/LP/SW/3	Sukna	Chamta	Adalpur	26.780967	88.350450
Shorea robusta	06	KYAN/SR/2	DW/SU/SR/1	Sukna	Chamta	Kyananuka	26.795550	88.360817
		KYAN/SR/3	DW/SU/SR/2	Sukna	Chamta	Kyananuka	26.795567	88.360633
		KYAN/SR/5	DW/SU/SR/3	Sukna	Chamta	Kyananuka	26.795933	88.360417
		KYAN/SR/6	DW/SU/SR/4	Sukna	Chamta	Kyananuka	26.796033	88.360183
		DW/SU/SR/1	DW/SU/SR/5	Sukna	Kaynanuka	Kaynanuka	26.79452	88.36080
		DW/SU/SR/2	DW/SU/SR/6	Sukna	Kaynanuka	Kaynanuka	26.793160	88.36080
Strychnos nux vomica	01	KYAN/SN/1	DW/SU/SN/1	Sukna	Chamta	Kyananuka	26.795367	88.360950
Tectona grandis	01	CHAM/TG/10	DW/SU/TG/1	Sukna	Chamta	Chamta	26.776117	88.353733
Terminalia crenulata	01	SUKNA/TT/1	DW/SU/TC/1	Sukna	Mahanadi	Sukna	26.793083	88.365300
Terminalia myriocarpa	01	KUHI/TM/7	DW/LP/TM/1	10th mile	Latpanchar	Kuhi	26.885210	88.385350
Tsuga brunoniana	01	SONA/TD/2	DW/SE/TB/1	Sanchel East	Sonada	Sonada-3	26.978517	88.281950
Xylia dolabriformis	01	KYAN/XD/2	DW/SU/XD/1	Sukna	Chamta	Kyananuka	26.796617	88.362233

3.D Kalimpong Division

In Kalimpong division, maximum number of trees (209) has been screened including 91 plus trees and 118 candidate plus trees (Table 3.D.1). Location details of plus trees and candidate plus trees are presented in Table 3.D.2 and 3.D.3 respectively.

Table. 3.D.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kalimpong Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acer campbellii*	03	00
2.	*Ailanthus grandis*	04	01
3.	*Alnus nepalensis*	10	15
4.	*Amoora wallichii*	02	01
5.	*Anthocephalus cadamba*	01	03
6.	*Beilschmiedia roxburghiana*	03	02
7.	*Betula alnoides*	02	01
8.	*Bischofia javanica*	01	01
9.	*Bombax ceiba*	01	00
10.	*Bucklandia populnea*	04	05
11.	*Chukrasia tabularis*	02	00
12.	*Cinnamomum cecidodaphne*	03	16
13.	*Duabanga indica*	05	00
14.	*Dysoxylum procerum*	01	05
15.	*Elaeocarpus sikkimensis*	01	00
16.	*Gmelina arborea*	01	03
17.	*Juglans regia*	01	01
18.	*Knema angustifolia*	01	00
19.	*Lagerstroemia flos reginae*	02	08
20.	*Lagerstroemia hypoleuca*	01	02
21.	*Machilus edulis*	01	00
22.	*Machilus gammieana*	01	00
23.	*Michelia cathcartii*	02	01
24.	*Michelia champaca*	06	09
25.	*Michelia excelsa*	02	08
26.	*Michelia lanuginosa*	02	01
27.	*Nyssa javanica*	03	02
28.	*Phoebe attenuate*	01	02
29.	*Pinus petula*	02	03
30.	*Prunus napaulensis*	01	01
31.	*Quercus lamellose*	03	03
32.	*Quercus lineate*	03	01
33.	*Schima wallichii*	01	00

34.	*Shorea robusta*	03	05
35.	*Tectona grandis*	02	10
36.	*Terminalia bellerica*	01	00
37.	*Terminalia crenulata*	06	00
38.	*Terminalia myriocarpa*	02	08
	Total	**91**	**118**

Table 3.D.2 Location Details of Screened Plus Trees inKalimpong Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acer campbellii	03	KOLB/AC/10	KP/LG/AC/1(P)	Loleygaon	Bokhim	Kolbong-3	27.083850	88.687883
		KOLB/AC/11	KP/LG/AC/2(P)	Loleygaon	Bokhim	Kolbong-3	27.083883	88.687600
		LAVA/AC/12	KP/LV/AC/3(P)	Lava	Lava	Lava-6	27.083500	88.662083
Ailanthus grandis	04	CHURA/AG/2	KP/CH/AG/1(P)	Chel	Churanti	Churanti-2	26.891667	88.571267
		MAL/AG/3	KP/NR/AG/2(P)	Neora	Buttabari	Mal-8	26.961967	88.698700
		MAL/AG/4	KP/NR/AG/3(P)	Neora	Neora HQ	Mal-13	26.934950	88.719550
		TASHI/AG/1	KP/KP/AG/4(P)	Kalimpong	Tashiding	Tashiding-1	27.059717	88.433233
Alnus nepalensis	10	LAVA/AN/5	KP/LV/AN/1(P)	Lava	lava	Lava-6	27.079250	88.660467
		MEYO/AN/9	KP/PS/AN/2(P)	Pankhasari	Algaeah	Meyong	27.105717	88.598483
		MEYO/AN/13	KP/PS/AN/3(P)	Pankhasari	Algaeah	Paiyong	27.106783	88.593333
		MEYO/AN/16	KP/PS/AN/4(P)	Pankhasari	Algaeah	Paiyong	27.104550	88.595900
		KP/AG/AN/3	KP/AG/AN/5(P)	Algarah	Payong	Payong	27.107000	88.591867
		KP/AG/AN/5	KP/AG/AN/6(P)	Algarah	Algarah	Damsung	27.142583	88.593233
		KP/AG/AN/6	KP/AG/AN/7(P)	Algarah	Algarah	Damsung	27.145000	88.596217
		KP/AG/AN/7	KP/AG/AN/8(P)	Algarah	Algarah	Damsung	27.145217	88.596717
		KP/AG/AN/8	KP/AG/AN/9(P)	Algarah	Algarah	Damsung	27.146483	88.597250
		KP/AG/AN/10	KP/AG/AN/10(P)	Algarah	Algarah	Damsung	27.146867	88.597250
Amoora wallichii	02	MAL/AW/3	KP/NR/AW/1(P)	Neora	Neora HQ	Mal-6	26.934733	88.719567
		MAL/AW/1	KP/NR/AW/2(P)	Neora	Buttabari	Mal-11	26.940000	88.698767
Anthocephalus cadamba	01	MAL/AC/1	KP/NR/AC/1(P)	Neora	Burikhola	Mal-6	26.935033	88.716700
Beilschmiedia roxburghiana	03	LAVA/BR/3	KP/LV/BR/1(P)	Lava	Lava	Lava-1	27.084233	88.663850
		LAVA/BR/4	KP/LV/BR/2(P)	Lava	Lava	Lava-1	27.082317	88.663683
		PAKT/BR/2	KP/PS/BR/3(P)	Pankhasari	Algarah	Paktham-1	27.103667	88.639200
Betula alnoides	02	KAFF/BA/7	KP/LG/BA/1(P)	Loleygaon	Pemling	Pemling-1	27.018733	88.562350
		DULAP/BA/2	KP/PS/BA/2(P)	Pankhasari	Algarah	Dulapchand	27.091050	88.534967
Bischofia javanica	01	MAL/BJ/1	KP/NR/BJ/1(P)	Neora	Buttabari	Mal-12	26.937717	88.699483
Bombax ceiba	01	TASHI/BC/5	KP/KP/BC/1(P)	Kalimpong	Tashiding	Tashiding-1	27.059733	88.434817
Bucklandia populnea	04	BOKH-BP-1	KP/LG/BP/1(P)	Loleygaon	Bokhim	Bokhim-4	27.035633	88.577083
		PEML-BP-4	KP/LG/BP/2(P)	Loleygaon	Pemling	Pemling-1	27.011250	88.561200
		PEML-BP-7	KP/LV/BP/3(P)	Lava	Lava	Lava-2	27.086950	88.647600
		KP/AG/BP/2	KP/AG/BP/4(P)	Algarah	Rishum	Rishum-1	27.096833	88.597300
Chukrasia tabularis	02	CHUR/CT/1	KP/CH/CT/1(P)	Chel	Churanti	Churanti-1	26.891467	88.574233
		MAL/CT/1	KP/CH/CT/2(P)	Neora	Buttabari	Mal-8	26.933783	88.697000

Cinnamomum cecidodaphne	03	SAMS/CC/1	KP/SS/CC/1(P)	Samsing	Samsing	ENR-1	26.994583	88.807500
		SAMS/CC/15	KP/SS/CC/2(P)	Samsing	Samsing	ENR-1	26.997000	88.805850
		KP/NR/CC/1	KP/NR/CC/3(P)	Newra	Newra HQ	N H Q	26.934867	88.706917
Duabanga indica	05	TASHI/DI/3	KP/KP/DI/1(P)	Kalimpong	Tashiding	Tashiding	27.059300	88.433983
		BHAL/DI/1	KP/KP/DI/2(P)	Kalimpong	Tashiding	Bhalukhop-3	27.121450	88.493150
		MAL/DI/7	KP/JD/DI/3(P)	Jaldhaka	Khumani	Mal-12	26.935217	88.708667
		KHUM/DI/1	KP/JD/DI/4(P)	Jaldhaka	Khumani	Khumani-6	26.580900	88.574050
		KHUM/DI/2	KP/JD/DI/5(P)	Jaldhaka	Khumani	Khumani-6	26.967783	88.856967
Dysoxylum procerum	01	MAL/DP/6	KP/NR/DP/1(P)	Neora	Buttabari	Mal-12	26.935333	88.711183
Elaeocarpus sikkimensis	01	KOLB/ES/5	KP/LV/ES/1(P)	Lava	Lava	Kolbong-1	27.095483	88.652483
Gmelina arborea	01	DAMD/GA/2	KP/NFL/GA/1(P)	Non Forest Land	N F L	Damdih NH - 31	26.868370	88.671740
Juglans regia	01	RAMD/JR/7	KP/PS/JR/1(P)	Pankhasar	Algarah	Rishum-4	27.098067	88.616233
Knema angustifolia	01	RAMD/JR/6	KP/NR/KA/1(P)	Neora	Burikhola	Mal-13	26.935317	88.718883
Lagerstroemia flos reginae	02	KHUM/LF/3	KP/JD/LF/1(P)	Jaldhaka	Khumani	Khumani-6	26.968533	88.857117
		KP/NR/LF/4	KP/NR/LF/2(P)	Newra	Newra	Newra HQ	26.934850	88.693750
Lagerstroemia hypoleuca	01	MAL/LH/2	KP/NR/LP/1(P)	Neora	Burikhola	Mal-13	26.935400	88.717200
Machilus gammieana	01	PEML/MG/2	KP/LG/MG/1(P)	Loleygaon	peming	peming-1	27.014300	88.562617
Machilus edulis	01	LAVA/ME/4	KP/LV/ME/1(P)	Lava	Lava	Lava-6	27.080300	88.662867
Michelia cathcartii	02	LAVA/MC/6	KP/LV/MCT/1(P)	Lava	Lava	Lava-1	27.082133	88.663733
		PAKT/MC/4	KP/PS/MCT/2(P)	Pankhasari	Algarah	Paktham	27.101033	88.633267
Michelia champaca	06	CHUR/MC/1	KP/NR/MC/1(P)	Chel	Churanti	Churanti-1	26.891583	88.574150
		KP/NR/MC/3	KP/NR/MC/2(P)	Newra	Burikhola	Burikhola	26.942833	88.720250
		KP/NR/MC/5	KP/NR/MC/3(P)	Newra	Burikhola	Burikhola	26.940567	88.720633
		KP/NR/MC/6	KP/NR/MC/4(P)	Newra	Burikhola	Burikhola	26.942233	88.731667
		KP/NR/MC/7	KP/NR/MC/5(P)	Newra	Burikhola	Burikhola	26.942217	88.732733
		KP/NR/MC/12	KP/NR/MC/6(P)	Newra	Jaldhaka	Khumani	26.981850	88.856167
Michelia excelsa	02	LAVA/ME/3	KP/LV/MEX/1(P)	Lava	Lava	Lava-2	27.087683	88.649050
		KP/AG/ME/2	KP/AG/MEX/2(P)	Algarah	Payong	Pankhasari	27.107117	88.592933
Michelia lanuginosa	02	LAVA/ML/3	KP/LV/ML/1(P)	Lava	Lava	Lava-6	27.077217	88.655450
		LAVA/ML/6	KP/LV/ML/2(P)	Lava	Lava	Lava-1	27.083583	88.655417
Nyssa javanica	03	PEML/NJ/8	KP/LG/NJ/1(P)	Loleygaon	Pemling	Pemling-1	27.012717	88.562150
		LAVA/NJ/9	KP/LV/NJ/2(P)	Lava	Lava	Lava-6	27.079400	88.661117
		KOLB/NJ/10	KP/LV/NJ/3(P)	Lava	Lava	Kolbong-1	27.090250	88.656517
Phoebe attenuate	01	MAL/PA/1	KP/NR/PA/1(P)	Neora	Bhuttabari	Mal-7 & 13	26.935317	88.707267

Pinus petula	02	LAVA/PP/1	KP/LV/PP/1(P)	Lava	Lava	Lava-7	27.075617	88.665717
		BOKH/PP/4	KP/LG/PP/2(P)	Loleygaon	Bokhim	Bokhim-4	27.034367	88.577000
Prunus napaulensis	01	DAMS/PN/2	KP/PS/PN/1(P)	Pankhasari	Algarah	Damsang	27.141683	88.591433
Quercus lamellose.	03	KOLB/QL/6	KP/LV/QL/1(P)	Lava	Lava	Kolbong-1	27.097667	88.652383
		KOLB/QL/7	KP/LV/QL/2(P)	Lava	Lava	Kolbong-1	27.093033	88.685967
		PAKT/QL/7	KP/PS/QL/3(P)	Pankhasari	Algarah	Paktham	27.095233	88.639383
Quercus lineate	03	KOLB/QL/4	KP/LV/QLT/1(P)	Lava	Lava	Kolbong-1	27.095017	88.650650
		KOLB/QL/5	KP/LV/QLT/2(P)	Lava	Lava	kolbong-1	27.095983	88.650533
		RACH/QL/3	KP/LV/QLT/3(P)	Lava	Lava	Rachela-4	27.083600	88.690583
Schima wallichii	01	MAL/SW/1	KP/NR/SW/1(P)	Neora	Neora HQ	Mal-7	26.935200	88.711200
Shorea robusta	03	CHURA/SR/1	KP/CH/SR/1(P)	Chel	Churanti	Churanti-1	26.891333	88.570300
		KP/NR/SR/2	KP/NR/SR/2(P)	Newra	Newra	Newra HQ	26.932933	88.697183
		KP/NR/SR/3	KP/NR/SR/3(P)	Newra	Newra	Newra HQ	26.933400	88.697500
Tectona grandis	02	KHUM/TG/2	KP/JD/TG/1(P)	Jaldhaka	Khumani	Khumani-6	26.973833	88.864917
		KP/JD/TG/7	KP/JD/TG/2(P)	Jaldhaka	Khumani	Khumani	26.968417	88.856533
Terminalia bellerica	01	KHUM/TB/1	KP/JD/TB/1(P)	Jaldhaka	Khumani	Khumani-6	26.973583	88.864550
Terminalia crenulata	06	KHUM/TT/1	KP/JD/TC/1(P)	Jaldhaka	Khumani	Khumani-6	26.969983	88.858133
		KHUM/TT/2	KP/JD/TC/2(P)	Jaldhaka	Khumani	Khumani-6	26.970550	88.860317
		KHUM/TT/3	KP/JD/TC/3(P)	Jaldhaka	Khumani	Khumani-6	26.971500	88.862900
		KHUM/TT/4	KP/JD/TC/4(P)	Jaldhaka	Khumani	Khumani-6	26.974867	88.864017
		KHUM/TT/5	KP/JD/TC/5(P)	Jaldhaka	Khumani	Khumani-6	26.976183	88.864750
		KHUM/TT/6	KP/JD/TC/6(P)	Jaldhaka	Khumani	Khumani-6	26.976117	88.864883
Terminalia myriocarpa	02	DULAP/TM/1	KP/PS/TM/1(P)	Pankhasari	Algarah	Dulapchand	27.090917	88.533733
		KP/NR/TM/4	KP/NR/TM/2(P)	Newra	Newra	Newra HQ	26.934117	88.694367

Table 3.D.3 Location Details of Screened Candidate Plus Trees inKalimpong Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Ailanthus grandis	01	CHURA/AG/1	KP/CH/AG/1	Chel	Churanti	Churanti-2	26.891383	88.571500
Alnus nepalensis	15	LAVA/AN/4	KP/LV/AN/1	Lava	lava	Lava-6	27.079483	88.660583
		MEYO/AN/6	KP/PS/AN/2	Pankhasari	Algaeah	Meyong	27.105567	88.597983
		MEYO/AN/7	KP/PS/AN/3	Pankhasari	Algaeah	Meyong	27.105133	88.598850
		MEYO/AN/8	KP/PS/AN/4	Pankhasari	Algaeah	Meyong	27.105567	88.598533
		MEYO/AN/10	KP/PS/AN/5	Pankhasari	Algaeah	Meyong	27.105717	88.598233
		MEYO/AN/11	KP/PS/AN/6	Pankhasari	Algaeah	Meyong	27.106167	88.597317
		MEYO/AN/12	KP/PS/AN/7	Pankhasari	Algaeah	Meyong	27.105950	88.597233
		MEYO/AN/14	KP/PS/AN/8	Pankhasari	Algaeah	Paiyong	27.106500	88.594650
		MEYO/AN/15	KP/PS/AN/9	Pankhasari	Algaeah	Paiyong	27.105567	88.594700
		MEYO/AN/18	KP/PS/AN/10	Pankhasari	Algaeah	Paiyong	27.104283	88.596217
		MEYO/AN/19	KP/PS/AN/11	Pankhasari	Algaeah	Paiyong	27.104067	88.596233
		KP/AG/AN/1	KP/AG/AN/12	Algarah	Paktham	Pankhasari	27.107250	88.592950
		KP/AG/AN/2	KP/AG/AN/13	Algarah	Payong	Payong	27.106833	88.591767
		KP/AG/AN/4	KP/AG/AN/14	Algarah	Payong	Payong	27.106650	88.592467
		KP/AG/AN/9	KP/AG/AN/15	Algarah	Algarah	Damsung	27.139817	88.597183
Amoora wallichii	01	MAL/AW/2	KP/NR/AW/1	Neora	Burikhola	Mal-13	26.935400	88.718810
Anthocephalus cadamba	03	KP/NR/AC/1	KP/NW/AC/1	Newra	Newra	Newra HQ	26.934717	88.707650
		KP/NR/AC/2	KP/NW/AC/2	Newra	Newra	Newra HQ	26.934767	88.707000
		KP/NR/AC/3	KP/NW/AC/3	Newra	Newra	Newra HQ	26.934517	88.705733
Beilschmiedia roxburghiana	02	PAKT/BR/1	KP/PS/BR/1	Pankhasari	Algarah	Paktham	27.103667	88.638967
		PAKT/BR/4	KP/PS/BR/2	Pankhasari	Algarah	Paktham-1	27.102317	88.635383
Betula alnoides	01	DULAP/BA/3	KP/PS/BA/1	Pankhasari	Algarah	Dulapchand	27.090683	88.534483
Bischofia javanica	01	MAL/BJ/2	KP/NR/BJ/1	Neora	Buttabari	Mal-12	26.937750	88.699500
Bucklandia populnea	05	PEML/BP/2	KP/AG/BP/1	Loleygaon	Pemling	Pemling-1	27.011467	88.560883
		PEML/BP/3	KP/AG/BP/2	Loleygaon	Pemling	Pemling-1	27.011183	88.561183
		KP/AG/BP/1	KP/AG/BP/3	Algarah	Algarah	Peyong	27.106617	88.593683
		KP/AG/BP/3	KP/AG/BP/4	Algarah	Rishum	Rishum-1	27.096867	88.597367
		KP/AG/BP/4	KP/AG/BP/5	Algarah	Rishum	Rishum-1	27.096900	88.597717

Cinnamomum cecidodaphne	16	SAMS/CC/2	KP/SS/CC/1	Samsing	Samsing	ENR-1	26.994817	88.807433
		SAMS/CC/3	KP/SS/CC/2	Samsing	Samsing	ENR-1	26.996400	88.806750
		SAMS/CC/4	KP/SS/CC/3	Samsing	Samsing	ENR-1	26.996350	88.806817
		SAMS/CC/5	KP/SS/CC/4	Samsing	Samsing	ENR-1	26.996317	88.806783
		SAMS/CC/6	KP/SS/CC/5	Samsing	Samsing	ENR-1	26.996267	88.806933
		SAMS/CC/7	KP/SS/CC/6	Samsing	Samsing	ENR-1	26.996250	88.806967
		SAMS/CC/8	KP/SS/CC/7	Samsing	Samsing	ENR-1	26.996350	88.807000
		SAMS/CC/9	KP/SS/CC/8	Samsing	Samsing	ENR-1	26.996517	88.806750
		SAMS/CC/10	KP/SS/CC/9	Samsing	Samsing	ENR-1	26.996633	88.806733
		SAMS/CC/11	KP/SS/CC/10	Samsing	Samsing	ENR-1	26.996817	88.806650
		SAMS/CC/13	KP/SS/CC/11	Samsing	Samsing	ENR-1	26.996800	88.806550
		SAMS/CC/14	KP/SS/CC/12	Samsing	Samsing	ENR-1	26.996800	88.806183
		KP/NR/CC/2	KP/NW/CC/13	Newra	Newra HQ	N H Q	26.934400	88.706350
		KP/NR/CC/3	KP/NW/CC/14	Newra	Newra HQ	N H Q	26.934600	88.706250
		KP/NR/CC/4	KP/NW/CC/15	Newra	Newra HQ	N H Q	26.934550	88.706017
		KP/NR/CC/5	KP/NW/CC/16	Newra	Newra HQ	N H Q	26.934050	88.706100
Dysoxylum procerum	05	MAL/DP/1	KP/NR/DP/1	Neora	Neora HQ	Mal-12	26.935600	88.709433
		MAL/DP/2	KP/NR/DP/2	Neora	Buttabari	Mal-12	26.935300	88.709767
		MAL/DP/3	KP/NR/DP/3	Neora	Buttabari	Mal-12	26.935400	88.710133
		MAL/DP/4	KP/NR/DP/4	Neora	Buttabari	Mal-12	26.935283	88.710417
		MAL/DP/5	KP/NR/DP/5	Neora	Buttabari	Mal-12	26.935267	88.710450
Gmelina arborea	03	DAMD/GA/1	KP/NFL/GA/1	Non Forest Land	N F L	Damdih NH - 31	26.868445	88.672120
		DAMD/GA/4	KP/NFL/GA/2	Non Forest Land	N F L	Damdih NH - 31	26.868385	88.672537
		DAMD/GA/5	KP/NFL/GA/3	Non Forest Land	N F L	Damdih NH - 31	26.868442	88.672682
Juglans regia	01	RAMD/JR/6	KP/PS/JR/1	PankhasarI	Algarah	Rishum-4	27.098067	88.616283
Lagerstroemia flos reginae	08	KHUM/LF/1	KP/JD/LF/1	Jaldhaka	Khumani	Khumani-6	26.969100	88.856483
		KHUM/LF/2	KP/JD/LF/2	Jaldhaka	Khumani	Khumani-6	26.968817	88.856917
		KP/NR/LF/1	KP/NW/LF/3	Newra	Newra	Newra HQ	26.934350	88.694333
		KP/NR/LF/2	KP/NW/LF/4	Newra	Newra	Newra HQ	26.934150	88.694483
		KP/NR/LF/3	KP/NW/LF/5	Newra	Newra	Newra HQ	26.934450	88.693917
		KP/NR/LF/5	KP/NW/LF/6	Newra	Newra	Newra HQ	26.934883	88.693600
		KP/NR/LF/6	KP/NW/LF/7	Newra	Newra	Newra HQ	26.935167	88.693183
		KP/NR/LF/7	KP/NW/LF/8	Newra	Newra	Newra HQ	26.935100	88.693167

Lagerstroemia hypoleuca	02	MAL/LH/1	KP/NR/LH/1	Neora	Burikhola	Mal-13	26.935200	88.716533
		MAL/LH/3	KP/NR/LH/2	Neora	Burikhola	Mal-13	26.935450	88.717217
Michelia cathcartii	01	PAKT/MC/5	KP/PS/MCT/1	Pankhasari	Algarah	Paktham	27.100850	88.633350
Michelia champaca	09	KP/NR/MC/1	KP/NW/MC/1	Newra	Burikhola	Burikhola	26.934355	88.723933
		KP/NR/MC/2	KP/NW/MC/2	Newra	Burikhola	Burikhola	26.944183	88.719933
		KP/NR/MC/4	KP/NW/MC/3	Newra	Burikhola	Burikhola	26.942567	88.720567
		KP/NR/MC/8	KP/NW/MC/4	Newra	Jaldhaka	Khumani	26.979900	88.856233
		KP/NR/MC/9	KP/NW/MC/5	Newra	Jaldhaka	Khumani	26.979550	88.855917
		KP/NR/MC/10	KP/NW/MC/6	Newra	Jaldhaka	Khumani	26.978817	88.856133
		KP/NR/MC/11	KP/NW/MC/7	Newra	Jaldhaka	Khumani	26.980367	88.856183
		KP/NR/MC/13	KP/NW/MC/8	Newra	Jaldhaka	Khumani	26.982850	88.856467
		KP/NR/MC/14	KP/NW/MC/9	Newra	Jaldhaka	Khumani	26.968500	88.856583
Michelia excelsa	08	LAVA-ME-1	KP/LV/ME/1	Lava	Lava	Lava-2	27.087067	88.647667
		LAVA-ME-2	KP/LV/ME/2	Lava	Lava	Lava-2	27.087867	88.649000
		LAVA-ME-4	KP/LV/ME/3	Lava	Lava	Lava-2	27.087483	88.564500
		LAVA-ME-5	KP/LV/ME/4	Lava	Lava	Lava-2	27.086583	88.647283
		LAVA-ME-6	KP/PS/ME/5	Pankhasari	Algarah	Algarah	27.107033	88.593400
		LAVA-ME-8	KP/LV/ME/6	Lava	Lava	Lava-2	27.087283	88.647950
		KP/AG/ME/1	KP/AG/ME/7	Algarah	Payong	Pankhasari	27.107117	88.593417
		KP/AG/ME/3	KP/AG/ME/8	Algarah	Pankhasari	Pankhasari	27.107017	88.592933
Michelia lanuginosa	01	LAVA/ML/4	KP/LV/ML/1	Lava	Lava	Lava-6	27.077400	88.654983
Nyssa javanica	02	LAVA/NJ/10	KP/LV/NJ/1	Lava	Lava	Lava-6	27.079667	88.661883
		PEML/NJ/7	KP/LG/NJ/2	Loleygaon	Pemling	Pemling-1	27.011583	88.561217
Phoebe attenuate	02	MAL/PA/2	KP/NR/PA/1	Neora	Bhuttabari	Mal-7 & 13	26.935283	88.718700
		MAL/PA/3	KP/NR/PA/2	Neora	Bhuttabari	Mal-7 & 13	26.935583	88.702117
Pinus petula	03	LAVA/PP/2	KP/LV/PP/1	Lava	Lava	Lava-7	27.075767	88.665350
		LAVA/PP/3	KP/LV/PP/2	Lava	Lava	Lava-7	27.074300	88.664633
		BOKH/PP/5	KP/LG/PP/3	Loleygaon	Bokhim	Bokhim-4	27.020460	88.346240
Prunus napaulensis	01	DAMS/PN/1	KP/PS/PN/1	Pankhasari	Algarah	Damsang	27.141667	88.591433
Quercus lamellose	03	PAKT/QL/6	KP/PS/QL/1	Pankhasari	Algarah	Paktham	27.095100	88.639933
		KP/LV/QL/1	KP/LV/QL/2	Lava	Lava	Paktham	27.094183	88.646450
		KP/LV/QL/2	KP/LV/QL/3	Lava	Lava	Paktham	27.093417	88.647217
Quercus lineate	01	RACH/QL/2	KP/LV/QLT/1	Lava	Lava	Rachela-4	27.083083	88.691133
Shorea robusta	05	KP/NR/SR/1	KP/NW/SR/1	Newra	Newra	Newra HQ	26.932933	88.696550
		KP/NR/SR/4	KP/NW/SR/2	Newra	Newra	Newra HQ	26.933067	88.698167
		KP/NR/SR/5	KP/NW/SR/3	Newra	Newra	Newra HQ	26.933000	88.697533
		KP/NR/SR/6	KP/NW/SR/4	Newra	Newra	Newra HQ	26.933150	88.697933
		KP/NR/SR/7	KP/NW/SR/5	Newra	Newra	Newra HQ	26.933000	88.696767

Tectona grandis	10	KHUM/TG/1	KP/JD/TG/1	Jaldhaka	Khumani	Khumani-6	26.973750	88.864700
		KP/NR/TG/1	KP/NW/TG/2	Newra	Newra	Newra HQ	26.932717	88.696717
		KP/NR/TG/2	KP/NW/TG/3	Newra	Newra	Newra HQ	26.941300	88.690950
		KP/NR/TG/3	KP/NW/TG/4	Newra	Newra	Newra HQ	26.940183	88.690950
		KP/NR/TG/4	KP/NW/TG/5	Newra	Newra	Newra HQ	26.940100	88.690900
		KP/NR/TG/5	KP/NW/TG/6	Newra	Newra	Newra HQ	26.940817	88.690867
		KP/NR/TG/6	KP/NW/TG/7	Newra	Newra	Newra HQ	26.934067	88.690800
		KP/JD/TG/8	KP/JD/TG/8	Jaldhaka	Khumani	Khumani	26.968067	88.855967
		KP/JD/TG/9	KP/JD/TG/9	Jaldhaka	Khumani	Khumani	26.967550	88.855500
		KP/JD/TG/10	KP/JD/TG/10	Jaldhaka	Khumani	Khumani	26.967683	88.855433
Terminalia myriocarpa	08	KP/NR/TM/1	KP/NW/TM/1	Newra	Newra	Newra HQ	26.934717	88.707650
		KP/NR/TM/2	KP/NW/TM/2	Newra	Newra	Newra HQ	26.934667	88.694167
		KP/NR/TM/3	KP/NW/TM/3	Newra	Newra	Newra HQ	26.934183	88.694350
		KP/NR/TM/5	KP/NW/TM/4	Newra	Newra	Newra HQ	26.934067	88.694483
		KP/NR/TM/6	KP/NW/TM/5	Newra	Newra	Newra HQ	26.934750	88.693867
		DULAP-TM-2	KP/PS/TM/6	Pankhasari	Algarah	Dulapchand	27.090850	88.534017
		DULAP-TM-4	KP/PS/TM/7	Pankhasari	Algarah	Dulapchand	27.090467	88.534483
		MAL-TM-14	KP/NR/TM/8	Neora	Neora HQ	Mal-7	26.935200	88.709333

3.E Kurseong Division

In Kurseong division, 40 plus trees along with 45 candidate plus trees have been screened on the basis of phenotypical appraisal and analysis. Location details of the same are presented in table 3.E.2 and 3.E.3.

Table. 3.E.1 Abstract of Plus Trees and Candidate Plus Trees (Evaluated & Selected) in Kurseong Division

Sl No.	Name of the species	No. Of Plus tree	No. of Candidate Plus trees
1.	*Acrocarpus fraxinifolius*	02	00
2.	*Albizia lebbeck*	01	00
3.	*Albizia procera*	01	00
4.	*Amoora wallichii*	01	00
5.	*Artocarpus chaplasha*	01	01
6.	*Cedrella toona*	04	00
7.	*Cinnamomum cecidodaphne*	01	05
8.	*Duabanga indica*	01	00
9.	*Gmelina arborea*	03	02
10.	*Lagerstroemia flos reginae*	00	02
11.	*Michelia champaca*	02	03
12.	*Michelia excelsa*	00	03
13.	*Nyssa javanica*	01	06
14.	*Polyalthia simiarum*	01	03
15.	*Schima wallichii*	04	09
16.	*Shorea robusta*	03	06
17.	*Tectona grandis*	07	01
18.	*Terminalia myriocarpa*	06	04
19.	*Tetrameles nudiflora*	01	00
	Total	**40**	**45**

Table 3.C.2 Location Details of Screened Plus Trees inKurseong Division

Species	No. of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Acrocarpus fraxinifolius	02	UKUN/AF/1	KS/SV/AF/1(P)	Sevoke	Birik	Uper kundong	26.947000	88.433720
		UKUN/AF/2	KS/SV/AF/2(P)	Sevoke	Birik	Uper kundong	26.945450	88.433260
Albizia lebbeck	01	UKUN/AL/1	KS/SV/AL/1(P)	Sevoke	Kundong	Uper kundong	26.933530	88.450260
Albizia procera	01	KALI/AP/2	KS/SV/AP/1(P)	Sevoke	Sevoke	Kalijhora	26.934730	88.450900
Amoora wallichii	01	UKUN/AW/4	KS/SV/AW/1(P)	Sevoke	Kundong	Uper kundong	26.961300	88.432710
Artocarpus chaplasha	01	UKUN/AC/2	KS/SV/AC/1(P)	Sevoke	Kundong	Uper kundong	26.946280	88.433620
Cedrella toona	04	UKUN/CT/1	KS/SV/CT/1(P)	Sevoke	Sevoke	Kundong	26.961190	88.432800
		UKUN/CT/4	KS/SV/CT/2(P)	Sevoke	Sevoke	Kundong	26.923121	88.401020
		UKUN/CT/5	KS/SV/CT/3(P)	Sevoke	Sevoke	Kundong	26.960978	88.421162
		UKUN/CT/6	KS/SV/CT/4(P)	Sevoke	Sevoke	Kundong	26.960982	88.422000
Cinnamomum cecidodaphne	01	UKUN/CC/5	KS/SV/CC/1(P)	Sevoke	Kundong	Uper kundong	26.945140	88.433150
Duabanga indica	01	KUND/DI/4	KS/SV/CI/1(P)	Sevoke	Sevoke	Kundong	26.964960	88.431270
Gmelina arborea	03	KUND/GA/5	KS/SV/GA/1(P)	Sevoke	Sevoke	Kundong	26.934810	88.450770
		KUND/GA/6	KS/SV/GA/2(P)	Sevoke	Sevoke	Kundong	26.953810	88.433500
		KUND/GA/7	KS/SV/GA/3(P)	Sevoke	Sevoke	Kundong	26.965952	88.431700
Michelia champaca	02	KUND/MC/7	KS/SV/MC/1(P)	Sevoke	Sevoke	Kundong	26.943990	88.432880
		KUND/MC/9	KS/SV/MC/2(P)	Sevoke	Sevoke	Kundong	26.844983	88.433350
Nyssa javanica	01	MAHA/NJ/1	KS/BG/MJ/1(P)	Bagora	Bagora	Mahaldiram -1	26.933633	88.324217
Polyalhia simiarum	01	KUND/PS/4	KS/SV/PS/1(P)	Sevoke	Birik	Uper kundong	26.952250	88.432317
Schima wallichii	04	UKUN/SW/4	KS/SV/SW/1(P)	Sevoke	Kundong	Uper kundong	26.834367	88.721917
		UKUN/SW/5	KS/SV/SW/2(P)	Sevoke	Kundong	Uper kundong	26.834467	88.721767
		KS/BP/SW/2	KS/BP/SW/3(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.812190	88.290980
		KS/SV/SW/10	KS/SV/SW/4(P)	Sevoke	Birik	Uper Kungdung	26.975183	88.422400
Shorea robusta	03	BAMON/SR/2	KS/BP/SR/1(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.809120	88.289670

		KS/SV/SR/1	KS/SV/SR/2(P)	Sevoke	Birik	U Kundung	26.954583	88.434267
		KS/SV/SR/3	KS/SV/SR/3(P)	Sevoke	Birik	U Kundung	26.956033	88.434567
Tectona grandis	07	BAMON/TG/1	KS/BP/TG/1(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.825800	88.280090
		BAMON/TG/5	KS/BP/TG/2(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.825840	88.279590
		BAMON/TG/7	KS/BP/TG/3(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.824790	88.280280
		BAMON/TG/8	KS/BP/TG/4(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.824160	88.281480
		KS/PG/TG/1	KS/PG/TG/5(P)	Panighata	Khairbari	Khairbari	26.799250	88.206033
		KS/TJ/TG/2	KS/TJ/TG/6(P)	Tukriajhar	Tukriajhar	Tukriajhar	26.661700	88.190650
		KS/BR/TG/4	KS/BR/TG/7(P)	Birik	Birik	Birik	26.975250	88.422633
Terminalia Myriocarpa	06	KUND/TM/8	KS/SV/TM/1(P)	Sevoke	Sevoke	Kundong	26.954010	88.433510
		KUND/TM/9	KS/SV/TM/2(P)	Sevoke	Sevoke	Kundong	26.944390	88.432660
		KUND/TM/10	KS/SV/TM/3(P)	Sevoke	Sevoke	Kundong	26.944420	88. 432430
		KS/SV/TM/1	KS/SV/TM/4(P)	Sevoke	Birrik	Uper Kundung	26.944450	88.433250
		KS/SV/TM/2	KS/SV/TM/ 5(P)	Sevoke	Birrik	Uper Kundung	26.946667	88.432700
		KS/SV/TM/6	KS/SV/TM/6(P)	Sevoke	Birrik	Uper Kundung	26.952083	88.431817
Tetrameles nudiflora	01	BAMON/TG/8	KS/BP/TN/1(P)	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.824160	88.281480

Table 3.C.3 Location Details of Screened Candidate Plus Trees inKurseong Division

Species	No. Of Trees	Old Tree No.	New Tree No.	Range	Beat	Location	Latitude	Longitude
Artocarpus chaplasha	01	UKUN/AC/1	KS/SV/AC/1	Sevoke	Kundong	Uper kundong	26.947040	88.433880
Cinnamomum cecidodaphne	05	UKUN/CC/1	KS/SV/CC/1	Sevoke	Kundong	Uper kundong	26.944930	88.433290
		UKUN/CC/2	KS/SV/CC/2	Sevoke	Kundong	Uper kundong	26.945000	88.433670
		UKUN/CC/3	KS/SV/CC/3	Sevoke	Kundong	Uper kundong	26.945500	88.433510
		UKUN/CC/4	KS/SV/CC/4	Sevoke	Kundong	Uper kundong	26.945170	88.433040
		KS/BR/CC/1	KS/SV/CC/5	Sevoke	Birik	Birik	26.945267	88.432917
Gmelina arborea	02	KS/SV/GA/1	KS/SV/GA/1	Sevoke	Birik	Uper Kungdung	26.952917	88.432317
		KS/SV/GA/2	KS/SV/GA/2	Sevoke	Birik	Uper Kungdung	26.947933	88.432933
Lagerstroemia flos reginae	02	KS/SV/LF/1	KS/SV/LF/1	Sevoke	Birik	Birik	26.975783	88.423017
		KS/SV/LF/2	KS/SV/LF/2	Sevoke	Birik	Birik	26.975200	88.421983
Michelia champaca	03	KS/BP/MC/1	KS/BP/MC/1	Bamonpokri	Bamonpokri	Bamonpokri	26.813460	89.289570
		KS/BP/MC/2	KS/BP/MC/2	Bamonpokri	Bamonpokri	Bamonpokri	26.809130	89.028810
		KS/BP/MC/3	KS/BP/MC/3	Bamonpokri	Bamonpokri	Bamonpokri	26.813390	89.288870
Michelia excelsa	03	KS/BG/ME/1	KS/BG/ME/1	Bagora	Dilaram	Rajahata	26.945500	88.296300
		KS/BG/ME/2	KS/BG/ME/2	Bagora	Dilaram	Rajahata	26.945600	88.296333
		KS/BG/ME/3	KS/BG/ME/3	Bagora	Dilaram	Rajahata	26.945700	88.296350
Nyssa javanica	06	MAHA/NJ/2	KS/BG/NJ/1	Bagora	Bagora	Mahaldiram -1	26.933700	88.324317
		MAHA/NJ/3	KS/BG/NJ/2	Bagora	Bagora	Mahaldiram -1	26.933733	88.324200
		MAHA/NJ/4	KS/BG/NJ/3	Bagora	Bagora	Mahaldiram -1	26.933767	88.323383
		MAHA/NJ/5	KS/BG/NJ/4	Bagora	Bagora	Mahaldiram -1	26.933800	88.324300
		MAHA/NJ/6	KS/BG/NJ/5	Bagora	Bagora	Mahaldiram -1	26.933867	88.324100
		MAHA/NJ/7	KS/BG/NJ/6	Bagora	Bagora	Mahaldiram -1	26.933850	88.324100
Polyalthia simiarum	03	KUND/PS/1	KS/SV/PS/1	Sevoke	Birik	Uper kundong	26.952683	88.432100
		KUND/PS/2	KS/SV/PS/2	Sevoke	Birik	Uper kundong	26.952550	88.432383
		KUND/PS/3	KS/SV/PS/3	Sevoke	Birik	Uper kundong	26.952550	88.432533

Schima wallichii	09	KS/BP/SW/1	KS/BP/SW/1	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.813300	88.291180
		KS/BP/SW/3	KS/BP/SW/2	Bamonpokhri	Bamonpokhri	Bamonpokhri	26.811370	88.290530
		KS/SV/SW/4	KS/SV/SW/3	Sevoke	Birik	Uper Kungdung	26.946200	88.432883
		KS/SV/SW/5	KS/SV/SW/4	Sevoke	Birik	Uper Kungdung	26.948133	88.432750
		KS/SV/SW/6	KS/SV/SW/5	Sevoke	Birik	Uper Kungdung	26.949183	88.431817
		KS/SV/SW/7	KS/SV/SW/6	Sevoke	Birik	Uper Kungdung	26.949400	88.432200
		KS/SV/SW/8	KS/SV/SW/7	Sevoke	Birik	Uper Kungdung	26.950667	88.432650
		KS/SV/SW/9	KS/SV/SW/8	Sevoke	Birik	Uper Kungdung	26.952700	88.433200
		KS/SV/SW/11	KS/SV/SW/9	Sevoke	Birik	Uper K1ungdung	26.972867	88.422950
Shorea robusta	06	KS/SV/SR/2	KS/SV/SR/1	Sevoke	Birik	U Kundung	26.955233	88.434167
		KS/SV/SR/4	KS/SV/SR/2	Sevoke	Birik	U Kundung	26.956067	88.434400
		KS/SV/SR/5	KS/SV/SR/3	Sevoke	Birik	U Kundung	26.956667	88.434267
		KS/SV/SR/6	KS/SV/SR/4	Sevoke	Birik	U Kundung	26.972350	88.422500
		KS/SV/SR/7	KS/SV/SR/5	Sevoke	Birik	U Kundung	26.972017	88.422417
		KS/SV/SR/8	KS/SV/SR/6	Sevoke	Birik	U Kundung	26.583220	88.253490
Tectona grandis	01	KS/TJ/TG/3	KS/TJ/TG/1	Tukriajhar	Tukriajhar	Tukriajhar	26.659883	88.189933
Terminalia myriocarpa	04	KS/SV/TM/3	KS/SV/TM/1	Sevoke	Birrik	Uper Kundung	26.947583	88.432767
		KS/SV/TM/4	KS/SV/TM/2	Sevoke	Birrik	Uper Kundung	26.948450	88.431517
		KS/SV/TM/5	KS/SV/TM/3	Sevoke	Birrik	Uper Kundung	26.951033	88.432183
		KS/SV/TM/7	KS/SV/TM/4	Sevoke	Birrik	Birik	26.975417	88.422783

CHAPTER-VI

Aknowledgement

I take this opportunity to express my sincere gratitude to Dr. Jose. T. Mathew (RM & D) Directorate of Forest, Government of West Bengal who has been the main anchor and without his keen interest on the subject the project would not have seen the light of the Day.

I would also like to place on record my gratitude to Dr. Nitin Kulkarni, Director, Institute of Forest Productivity, Ranchi for the able support and guidance provided by him all through the working of the project.

I am also thankful to Dr. Yogeshwar Mishra, Group Co-ordinator Research, IFP, Ranchi for his precious guidance and support throughout the project.

The valuable inputs suggested by Shri Debangshu Mallick, CF Research, were of immense importance and his guidance is duly acknowledged.

The efforts taken up by the Officers of Directorate of West Bengal in providing logistical support as well as staff for conducting the survey is highly appreciated. I am especially thankful to Shri. Arun Mukherjee, DFO Silviculture Hills; Shri Bidyut Sarkar DFO, Silviculture North and Shri Manik Lal Sarkar, DFO Silviculture South. We also acknowledge the support provided by Shri Bhaskar JV DFO Bankura (North); Shri Dharamdeo Rai erstwhile DFO Darjeeling Wildlife; Jiju Jaesper DFO Darjeeling Wildlife; Mridul Kumar, DFO Jalpaiguri; Nisha Goswami, DFO Gorumara; Kalyan Rai, DFO Buxa Tiger Reserve (West) and Miss Angela Bhutia, DFO Kalimpong for their timely support and logistics.

The frontline staff of the Silviculture Division in different regions had assisted us during rain and sun for conducting survey work and without whose assistance the project would have been half done. We acknowledge the support provide by all the Silviculture Division. I would also like to place on record special thanks and gratitude to Shri Gautam Sit (Forest Ranger) Beliatore Silviculture Range; Shri Partha (Forest Guard) and Shri Jai Dev of Arabari Silviculture Range; Shri Jai Raj Bhujel (Forest Ranger), Arpan Sarkar (Forest Guard) and Shri Ram Da (PDL) of Sukna Silviculture Range; Raju Pradhan

(Forest Ranger) , Amar Subba (Forest Guard), Obed Gurung (Forest Guard), Kale Tamang (PDL) , Sangay Daju (PDL) of Kalimpong Silviculture Range; Shri Bimal Pradhan (Forest Ranger), Ujjwal (Beat Officer), Pemba Lepcha (Forest Guard), Kiran Tamang (Forest Guard), Dipen Rai (PDL) Suman Sherpa (PDL) Silviculture Darjeeling Range; Shri Sanjay Chaki (Forest Ranger) and Kiran Lakra (PDL) of Buxa Tiger Reserve Silviculture Range; Ajay Dandapat (Forest Ranger) of Ranibandh Research Range; Shri Kamal Ray (FG) and Shri Sushil (PDL) of Siliguri Research Range; Shri Jaladhar Roy (Forest Ranger), Shri Kala Da (Forest Guard) and Shri Nihal (Forest Guard) of Lataguri Silviculture Range; Jyotirmoy Hansda (Forest Ranger) of Jhargram Silviculture Range and Miss Usha (Forest Ranger), Biswajeet (Beat Officer), Amar Rai (Forest Guard) and Prakash Chettri (Forest Guard) of Malbazar Research Range.

The effort and support provided by Shri Pramod Chand Lakra, IFS DCF, ERS, Sukna; Shri Rajeev Ranjan, Technical Officer; Shri Arvind Kumar, Technical Officer; Shri Raju Sharma, Senior Technical Assistant; Bishnu Lamgaday, Nursery Attendant; Shri Sukesh Kumar, Junior Project Fellow and Chandan Roy, Junior Project Fellow in survey and compilation work is highly applauded.

The valuable inputs provided by my colleagues had provided an important role in shaping up this project and I am thankful to them.

The support provided for the smooth running of the project facilitated by the fraternity at the Institute of Forest Productivity, Ranchi is duly acknowledged.

Last not but the least the project wouldn't have been possible without the financial support of Directorate of Forest, Government of West Bengal. I express my thankfulness for the support extended by them.

Last not but the least I am thankful to family and friends for the support extended during the period of the project.

Sanjeev Kumar

CHAPTER - VII

References:

Vakshasya, R.K., Rajora, O.P., & Rawat, M.S.1992. Seed and seedling traits of Dalbergia sissoo Roxb. Seed source variation studies among ten sources in India. Forest Ecology and management 48: 265-275

Sharma NK, Burman U, Tiwari JC, Bohra MD & Harsh LN.1994. Variability in pod and seed characteristics of Prosopis julifolia (S.W).D.C.Indian journal of Forestry 17:161-165.

Aslam, M., Reshi, Z.A. & Siddiqi, T.O.2011a. Need for identification and selection of elite germplasm of Pinus wallichiana A.B.Jackson for its mass multiplication in the Kashmir Himalaya, India. Agricultural & Biological Research 27: 109-120.

Kedharnath, S.1982.Plus tree selection – A tool in forest tree improvements, In: Proc.Sym.on Improvement of Forest Biomass (Ed.).P.K. Khosla, and Sehgal, R.N. Indian Soc.Tree Scientists Publication, Solan (H.P)-India, pp.268-271.

Aslam, M.2005.Studies on selection, growth characteristics and macropropagation of Pinus wallichiana A. B. Jackson in Kashmir, India.Ph.D. Thesis, Jamia Hamdard (Hamdard University), New Delhi.

Aslam, M., Reshi, Z.A. & Siddiqi, T.O.2010. Variability in cone andseed characteristics among plus trees of blue pine (Pinuswallichiana A. B. Jackson) in the Kashmir Himalaya, India.International Journal of Pharma & Biosciences, 1: 212-223.

Manisha, V. & Bansal, Y.K.2007.Selection of superior (plus) tree phenotypes in a multipurpose tress species Semul (Bombax ceiba L.). Indian Journal of Forestry 30:51-53.

Zobel, B. & Talbert, J.1984. Applied Forest Tree Improvement. John Wiley and Sons, Toronto, New York, 605p.

Mukherjee, R.S., Thapliyal, R.C. & Phartyal, S.S.2004. Seed source variation in cone, seed and seedling characteristics across the natural distribution of Himalayan low level pine Pinus

roxburghii Sargent. Silvae Genetica 53: 116-123.

A. Kumar, P. H. Chawhaan and A. K. Matharoo. 2003. Improvement through selection of plus trees in Gmelina arborea. Journal of Tropical Forest Science Vol. 15, No. 3 (July 2003), pp. 441-449.

Annexure-I

I. SILVICULTURE NORTH DIVISION

Table No. I.1 Class Interval and Respective Scores for Quantitative Traits of *Michelia Champaca* in Baikunthpur Division

Total height interval	Score	Clear bole height interval	Score	Girth at breast height interval	Score	Crown width interval	Score	No of branches	Score
29.80-30.40-	6	18.80-19.40	6	1.70-1.79	6	11.90-12.70	6	4-5	6
30.50-31.10	7	19.50-20.10	7	1.80-1.89	7	12.80-13.60	7	6-7	7
31.20-31.80	8	20.20-20.80	8	1.90-1.99	8	1370.-14.50	8	8-9	8
31.90-32.50	9	20.90-21.50	9	2.00-2.09	9	14.60-15.40	9	10-11	9
32.60-33.20	10	21.60-22.20	10	2.10-2.19	10	15.50-16.30	10	12-13	10

Table No. I.2 Scored data of Plus Trees of *Michelia Champaca* in Baikunthpur Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast Height(m)	Crown width(m)	No of branches	Stem Straightness	Stem Form	Infection
ODAL-MC-1	10	10	9	10	9	10	7	10
ODAL-MC-2	9	9	10	6	9	10	7	10
ODAL-MC-3	9	7	6	9	10	10	7	10
ODAL-MC-4	6	6	7	7	9	10	7	10
ODAL-MC-14	6	9	9	8	10	10	7	10
APAL-MC-13	9	9	7	6	7	10	7	10

Table No. I.3 Weightage Score for Each Trait of Plus Trees of *Michelia Champaca* in Baikunthpur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ODAL-MC-1	15	20	18	2.5	2.25	15	10.5	10	93.25
ODAL-MC-2	13.5	18	20	1.5	2.25	15	10.5	10	90.75
ODAL-MC-3	13.5	14	12	2.25	2.5	15	10.5	10	79.75
ODAL-MC-4	9	12	14	1.75	2.25	15	10.5	10	74.5
ODAL-MC-14	9	18	18	2	2.5	15	10.5	10	85
APAL-MC-13	13.5	18	14	1.5	1.75	15	10.5	10	84.25

Table No. I.4 Class Interval and Respective Scores for Quantitative Traits of *Ailanthus grandis* in Buxa Tiger Reserve Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
30.6-31.0	6	25.6-26.0	6	1.71-1.85	6	8.8-9.4	6	8-9	6
31.1-31.5	7	26.1-26.5	7	1.86-2.0	7	9.5-10.1	7	10-11	7
31.6-32.0	8	26.6-27.0	8	2.01-2.15	8	10.2-10.8	8	12-13	8
32.1-32.5	9	27.1-27.5	9	2.16-2.30	9	10.9-11.5	9	14-15	9
32.6-33.0	10	27.6-28.0	10	2.31-2.45	10	11.6-12.2	10	16-17	10

Table No. I.5 Scored data of Plus Trees of *Ailanthus grandis* in Buxa Tiger Reserve Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AG/13	9	6	9	10	6	10	10	10
SRAJ/AG/14	9	8	8	6	8	10	7	10
SRAJ/AG/15	10	8	10	10	10	10	10	10
SRAJ/AG/16	6	10	7	7	6	10	10	10

Table No. I.6 Weightage Score for Each Trait of Plus Trees of *Ailanthus grandis* in Buxa Tiger Reserve Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SRAJ/AG/13	13.5	12	18	2.5	1.5	15	15	10	87.5
SRAJ/AG/14	13.5	16	16	1.5	2	15	10.5	10	84.5
SRAJ/AG/15	15	16	20	2.5	2.5	15	15	10	96
SRAJ/AG/16	9	20	14	1.75	1.5	15	15	10	86.25

Table No. I.7 Class Interval and Respective Scores for Quantitative Traits of *Anthocephalus cinensis* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast interval	Score	Crown width interval	Score	No of branches	Score
13.80-16.00	6	10.80-13.00	6	1.11-1.21	6	3.80-4.80	6	4-5	6
1610-18.30	7	13.10-15.30	7	1.22-1.32	7	4.90-5.90	7	6-7	7
18.40-20.60	8	15.40-17.60	8	1.33-1.43	8	6.00-7.00	8	8-9	8
20.70-22.90	9	17.70-19.90	9	1.44-1.54	9	7.10.-8.10	9	10-11	9
23.00-25.20	10	20.00-22.20	10	1.55-1.65	10	8.20-9.20	10	12-13	10

Table No. I.8 Scored data of Plus Trees of *Anthocephalus cinensis* in Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/AC/13	9	8	6	8	9	10	7	10
SRAJ/AC/14	9	8	6	8	10	10	7	10
SRAJ/AC/15	8	9	6	8	8	7	7	10
SRAJ/AC/16	7	7	9	9	7	10	7	10
SRAJ/AC/17	6	6	8	8	7	10	7	10
SRAJ/AC/18	6	6	10	10	10	10	7	10
SRAJ/AC/20	8	8	7	6	6	10	7	10
SRAJ/AC/21	10	10	6	8	8	10	7	10
SRAJ/AC/23	8	8	9	7	8	10	7	10

Table No. I.9 Total Weightage Score of plus trees of *Anthocephalus cinensis* in BTR west Division after Rejection

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weigtage
SRAJ/AC/13	13.5	16	12	2	2.25	15	10.5	10	81.25
SRAJ/AC/14	13.5	16	12	2	2.5	15	10.5	10	81.5
SRAJ/AC/15	12	18	12	2	2	10.5	10.5	10	77
SRAJ/AC/16	10.5	14	18	2.25	1.75	15	10.5	10	82
SRAJ/AC/17	9	12	16	2	1.75	15	10.5	10	76.25
SRAJ/AC/18	9	12	20	2.5	2.5	15	10.5	10	81.5
SRAJ/AC/20	12	16	14	1.5	1.5	15	10.5	10	80.5
SRAJ/AC/21	15	20	12	2	2	15	10.5	10	86.5
SRAJ/AC/23	12	16	18	1.75	2	15	10.5	10	85.25

Table I.10 Class Interval and Respective Scores for Quantitative Traits of *Bombax Ceiba* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast interval	Score	Crown width interval	Score	No of branches	Score
16.10-17.60	6	11.80-13.60	6	1.72-2.23	6	3.80-5.40	6	3-4	6
17.70-19.20	7	13.70-15.50	7	2.24-2.75	7	5.50-7.10	7	5-6	7
19.30-20.80	8	15.60-17.40	8	2.76-3.27	8	7.20-8.80	8	7-8	8
20.90-22.40	9	17.50-19.3	9	3.28-3.79	9	8.90-10.50	9	9-10	9
22.50-24.00	10	19.40-21.20	10	3.80-4.31	10	10.60-12.20	10	11-12	10

Table I.11 Scored data of Plus Trees of *Bombax Ceiba* in Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
CHECKO/BC/24	7	7	8	8	7	10	10	10
CHECKO/BC/25	6	7	6	6	8	10	7	10
CHECKO/BC/26	8	8	9	10	9	10	10	10
CHECKO/BC/27	7	7	8	7	7	10	10	10
CHECKO/BC/28	6	6	6	6	9	10	10	10
SRAJ/BC/29	10	10	6	6	7	10	10	10
SRAJ/BC/30	10	6	10	7	10	10	10	10
SRAJ/BC/31	7	7	7	9	10	10	10	10
SRAJ/BC/32	7	7	8	8	7	10	10	10

Table I.12 Total Weightage Score of plus trees of *Bombax Ceiba* in BTR west Division after Rejection

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
CHECKO/BC/24	10.5	14	16	2	1.75	15	15	10	84.25
CHECKO/BC/25	9	14	12	1.5	2	15	10.5	10	74
CHECKO/BC/26	12	16	18	2.5	2.25	15	15	10	90.75
CHECKO/BC/27	10.5	14	16	1.75	1.75	15	15	10	84
CHECKO/BC/28	9	12	12	1.5	2.25	15	15	10	76.75
SRAJ/BC/29	15	20	12	1.5	1.75	15	15	10	90.25
SRAJ/BC/30	15	12	20	1.75	2.5	15	15	10	91.25
SRAJ/BC/31	10.5	14	14	2.25	2.5	15	15	10	83.25
SRAJ/BC/32	10.5	14	16	2	1.75	15	15	10	84.25

Table No. I.13 Class Interval and Respective Scores for Quantitative Traits of *Dipterocarpus macrocarpus* in Buxa Tiger Reserve Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
30.0-30.80	6	27.0-27.9	6	1.35-1.45	6	5-6.50	6	5-6	6
30.9-31.70	7	27.91-28.80	7	1.46-1.56	7	6.51-8	7	7-8	7
31.80-32.60	8	28.81-30.70	8	1.57-1.67	8	8.01-9.50	8	9-10	8
32.70-33.50	9	30.71-31.60	9	1.68-1.78	9	9.51-11	9	11-12	9
33.60-34.40	10	31.61-32.50	10	1.79-1.89	10	11.01-12.50	10	13-14	10

Table No. I.14 Scored data of Plus Trees of *Dipterocarpus macrocarpus* in Buxa Tiger Reserve Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DAMAN/DM/5	6	7	8	8	6	10	10	10
DAMAN/DM/6	6	6	6	6	7	10	10	10
DAMAN/DM/8	6	7	8	6	6	10	10	10
DAMAN/DM/9	10	10	10	10	8	10	7	10

Table No. I.15 Weightage Score for Each Trait of Plus Trees of *Dipterocarpus macrocarpus* in Buxa Tiger Reserve Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DAMAN/DM/5	9	14	16	2	1.5	15	15	10	82.5
DAMAN/DM/6	9	12	12	1.5	1.75	15	15	10	76.25
DAMAN/DM/8	9	14	16	1.5	1.5	15	15	10	82
DAMAN/DM/9	15	20	20	2.5	2	15	10.5	10	95

Table No. I.16 Class Interval and Respective Scores for Quantitative Traits of *Duabanga sonneratioides* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast height interval	Score	Crown Width interval	Score	No of Branches	Score
20-21	6	3-7	6	1.46-1.58	6	6.80-7.80	6	6-7	6
22-23	7	8-12	7	1.59-1.71	7	7.90-8.90	7	8-9	7
24-25	8	13-17	8	1.72-1.84	8	9.0-10.0	8	10-11	8
26-27	9	18-22	9	1.85-1.97	9	10.10-11.10	9	12-13	9
28-29	10	23-27	10	1.98-2.10	10	11.20-12.20	10	14-15	10

Table No. I.17 Scored data of Plus Trees of *Duabanga sonneratioides* in Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightn ess	Stem Form	Infection
SRAJ/DS/2	10	10	6	7	10	10	10	10
SRAJ/DS/3	8	7	7	7	9	7	7	10
SRAJ/DS/4	8	8	10	10	9	10	10	10
SRAJ/DS/5	10	9	9	8	6	10	7	10
SRAJ/DS/6	6	8	8	6	9	10	10	10
SRAJ/DS/7	6	8	8	6	7	10	10	10
SRAJ/DS/8	6	6	6	6	7	7	7	10

Table No. I.18 Weightage Score for Each Trait of Plus Trees of *Duabanga sonneratioides* in Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straig htness	Stem For m	Infec tion	Total Weightage Score
SRAJ/DS/2	15	20	12	1.75	2.5	15	15	10	91.25
SRAJ/DS/3	12	14	14	1.75	2.25	10.5	10.5	10	75
SRAJ/DS/4	12	16	20	2.5	2.25	15	15	10	92.75
SRAJ/DS/5	15	18	18	2	1.5	15	10.5	10	90
SRAJ/DS/6	9	16	16	1.5	2.25	15	15	10	84.75
SRAJ/DS/7	9	16	16	1.5	1.75	15	15	10	84.25
SRAJ/DS/8	9	12	12	1.5	1.75	10.5	10.5	10	67.25

Table No. I.19 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia hypoleuca* in Buxa Tiger Reserve Division

Height interval	Scor e	Clear bole height interval	Score	Girth at breast height interval	Score	Crown Width interval	Score	No of Branches	Score
15.70-16.10	6	10.70-11.50	6	1.92-2.04	6	5.80-6.00	6	1-2	6
16.20-16.60	7	11.60-12.40	7	2.05-2.17	7	6.10-6.30	7	3-4	7
16.70-17.10	8	12.50-13.30	8	2.18-2.30	8	6.40-6.60	8	5-6	8
17.20-17.60	9	13.40-14.20	9	2.31-2.43	9	6.70-6.90	9	7-8	9
17.70-18.10	10	14.30-15.10	10	2.44-2.56	10	7.00-7.20	10	9-10	10

Table I.20 Scored data of Plus Trees of *Lagerstroemia hypoleuca in* Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/LH/27	10	10	10	10	8	10	10	10
SRAJ/LH/28	6	6	7	6	9	7	7	10
SRAJ/LH/29	10	9	7	6	8	10	10	10
SRAJ/LH/30	10	6	6	10	8	10	10	10

Table I.21 Total Weightage Score of plus trees of *Lagerstroemia hypoluca* in BTR west Division after Rejection

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
SRAJ/LH/27	15	20	20	2.5	2	15	15	10	99.5
SRAJ/LH/28	9	12	14	1.5	2.25	10.5	10.5	10	69.75
SRAJ/LH/29	15	18	14	1.5	2	15	15	10	90.5
SRAJ/LH/30	15	12	12	2.5	2	15	15	10	83.5

Table No. I.22 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia parviflora* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast height interval	Score	Crown Width interval	Score	No of Branches	Score
17.80-18.60	6	7.80-9.60	6	1.76-1.84	6	3.80-5.00	6	5-6	6
18.70-19.50	7	9.70-11.50	7	1.85-1.93	7	5.10-6.30	7	7-8	7
19.60-20.40	8	11.60-13.40	8	1.94-2.02	8	6.40-7.60	8	9-10	8
20.50-21.30	9	13.50-15.30	9	2.03-2.11	9	7.70-8.90	9	11-12	9
21.40-22.20	10	15.40-17.20	10	2.12-2.20	10	9.00-10.20	10	13-14	10

Table No. I.23 Scored data of Plus Trees of *Lagerstroemia parviflora in* Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/LP/8	10	10	10	6	6	10	10	10
SRAJ/LP/9	8	7	8	7	10	7	7	10
SRAJ/LP/10	6	6	9	10	10	10	10	10
SRAJ/LP/11	6	6	6	8	8	10	10	10

Table No. I.24 Total Weightage Score of plus trees of *Lagerstroemia parviflora* in BTR west Division after Rejection

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straig htness	Stem For m	Infec tion	Total Weighta ge Score
SRAJ/LP/8	15	20	20	1.5	1.5	15	15	10	98
SRAJ/LP/9	12	14	16	1.75	2.5	10.5	10.5	10	77.25
SRAJ/LP/10	9	12	18	2.5	2.5	15	15	10	84
SRAJ/LP/11	9	12	12	2	2	15	15	10	77

Table No. I.25 Class Interval and Respective Scores for Quantitative Traits of *Michelia champaca* in Buxa Tiger Reserve Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
17-19	6	6.00-9.20	6	1.85-2.00	6	8.5-11.0	6	4-6	6
20-22	7	9.30-12.50	7	2.01-2.16	7	11.1-13.6	7	7-9	7
23-25	8	12.60-15.80	8	2.17-2.32	8	13.7-16.2	8	10-12	8
26-28	9	15.90-19.10	9	2.33-2.48	9	16.3-18.8	9	13-15	9
29-31	10	19.20-22.40	10	2.49-2.64	10	18.9-21.4	10	16-18	10

Table No. I.26 Scored data of Plus Trees of *Michelia champaca in* Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height(m)	Crown width(m)	No of branche s	Stem Straightnes s	Stem Form	Infection
GADA/MC/29	8	9	6	6	7	10	10	10
GADA/MC/30	6	8	6	7	8	7	7	10
GADA/MC/31	8	9	9	8	8	10	10	10
GADA/MC/32	8	9	9	8	8	10	7	10
GADA/MC/33	10	10	6	7	8	10	10	10
GADA/MC/34	8	7	6	6	6	10	7	10
GADA/MC/35	9	10	6	6	6	10	10	10
GADA/MC/37	9	8	6	7	7	7	7	10
GADA/MC/38	8	9	8	10	7	10	10	10
CHECKO/MC/25	8	7	7	6	7	10	10	10
CHECKO/MC/26	8	7	8	6	7	7	7	10
CHECKO/MC/27	6	6	9	6	8	10	10	10
CHECKO/MC/28	7	6	8	8	6	7	7	10

Table No. I.27 Weightage Score for Each Trait of Plus Trees of *Michelia champaca* in Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
GADA/MC/29	12	18	12	1.5	1.75	15	15	10	85.25
GADA/MC/30	9	16	12	1.75	2	10.5	10.5	10	71.75
GADA/MC/31	12	18	18	2	2	15	15	10	92
GADA/MC/32	12	18	18	2	2	15	10.5	10	87.5
GADA/MC/33	15	20	12	1.75	2	15	15	10	90.75
GADA/MC/34	12	14	12	1.5	1.5	15	10.5	10	76.5
GADA/MC/35	13.5	20	12	1.5	1.5	15	15	10	88.5
GADA/MC/37	13.5	16	12	1.75	1.75	10.5	10.5	10	76
GADA/MC/38	12	18	16	2.5	1.75	15	15	10	90.25
CHECKO/MC/25	12	14	14	1.5	1.75	15	15	10	83.25
CHECKO/MC/26	12	14	16	1.5	1.75	10.5	10.5	10	76.25
CHECKO/MC/27	9	12	18	1.5	2	15	15	10	82.5
CHECKO/MC/28	10.5	12	16	2	1.5	10.5	10.5	10	73

Table No. I.28 Class Interval and Respective Scores for Quantitative Traits of *Schima wallichii* in Buxa Tiger Reserve Division

Total height interval	Score	Clear bole height interval	Score	Girth at breast Height interval	Score	Crown width interval	Score	No of Branches	Score
13.80-15.40	6	5.80-7.00	6	1.14-1.34	6	2.30-3.80	6	2-4	6
15.50-17.10	7	7.10-8.30	7	1.35-1.55	7	3.90-5.40	7	5-7	7
17.20-18.80	8	8.40-9.60	8	1.56-1.76	8	5.50-7.00	8	8-10	8
18.90-20.50	9	9.70-10.90	9	1.77-1.97	9	7.10-8.60	9	11-13	9
20.60-22.20	10	11.00-12.20	10	1.982.18	10	8.70-10.20	10	14-16	10

Table No. I.29 Scored data of Plus Trees of *Schima wallichii* in Buxa Tiger Reserve Division

Tree no	Total Height(m)	Clear bole height(m)	Girth at Breast Height(m)	Crown Width(m)	No of branches	Stem Straightness	Stem Form	Infection
SRAJ/AW/18	7	10	10	7	7	7	7	10
SRAJ/AW/19	10	7	10	10	10	10	10	10
SRAJ/AW/20	7	8	9	7	7	10	7	10
SRAJ/AW/21	7	6	9	9	8	10	10	10
SRAJ/AW/22	9	9	10	8	7	10	7	10
SRAJ/AW/23	9	10	9	7	8	7	7	10
SRAJ/AW/31	9	7	8	6	7	7	7	10
SRAJ/AW/32	9	8	7	7	6	10	7	10
SRAJ/AW/33	9	10	6	7	8	10	7	10
SRAJ/AW/34	7	7	6	6	8	10	7	10
SRAJ/AW/35	6	8	7	7	6	10	7	10
SRAJ/AW/38	9	8	10	8	8	10	7	10
CHEC/SW/24	7	7	7	7	8	10	7	10
CHEC/SW/25	8	9	7	8	8	10	7	10
CHEC/SW/26	6	7	8	7	7	10	7	10
CHEC/SW/27	8	8	8	8	8	10	7	10
CHEC/SW/28	7	9	8	8	9	10	7	10
CHEC/SW/29	7	8	7	8	7	7	7	10

Table No. I.30 Weightage Score for Each Trait of Plus Trees of *Schima wallichii* in Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem For m	Infection	Total Weightage Score
SRAJ/AW/18	10.5	20	20	1.75	1.75	10.5	10.5	10	85
SRAJ/AW/19	15	14	20	2.5	2.5	15	15	10	94
SRAJ/AW/20	10.5	16	18	1.75	1.75	15	10.5	10	83.5
SRAJ/AW/21	10.5	12	18	2.25	2	15	15	10	84.75
SRAJ/AW/22	13.5	18	20	2	1.75	15	10.5	10	90.75
SRAJ/AW/23	13.5	20	18	1.75	2	10.5	10.5	10	86.25
SRAJ/AW/31	13.5	14	16	1.5	1.75	10.5	10.5	10	77.75
SRAJ/AW/32	13.5	16	14	1.75	1.5	15	10.5	10	82.25
SRAJ/AW/33	13.5	20	12	1.75	2	15	10.5	10	84.75
SRAJ/AW/34	10.5	14	12	1.5	2	15	10.5	10	75.5
SRAJ/AW/35	9	16	14	1.75	1.5	15	10.5	10	77.75
SRAJ/AW/38	13.5	16	20	2	2	15	10.5	10	89
CHEC/SW/24	10.5	14	14	1.75	2	15	10.5	10	77.75
CHEC/SW/25	12	18	14	2	2	15	10.5	10	83.5
CHEC/SW/26	9	14	16	1.75	1.75	15	10.5	10	78
CHEC/SW/27	12	16	16	2	2	15	10.5	10	83.5
CHEC/SW/28	10.5	18	16	2	2.25	15	10.5	10	84.25
CHEC/SW/29	10.5	16	14	2	1.75	10.5	10.5	10	75.25

Table No. I.31 Class Interval and Respective Scores for Quantitative Traits of *Tectona grandis* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast interval	Score	Crown width interval	Score	No of branches	Score
15.80-17.00	6	11.80-12.40	6	1.04-1.11	6	2.80-3.20	6	1-2	6
17.10-18.30	7	12.50-13.10	7	1.12-1.19	7	3.30-3.70	7	3-4	7
18.40-19.60	8	13.20-13.80	8	1.20-1.27	8	3.80-4.20	8	5-6	8
19.70-20.90	9	13.90-14.50	9	1.28-1.35	9	4.30-4.70	9	7-8	9
21.00-22.20	10	14.60-15.20	10	1.36-1.43	10	4.80-5.20	10	9-10	10

Table No. I.32 Scored data of Plus Trees of *Tectona grandis* in Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TG/69	7	10	6	6	7	10	10	10
SRAJ/TG/71	10	10	10	10	10	10	7	10
SRAJ/TG/72	8	10	10	8	7	10	10	10
SRAJ/TG/73	6	7	8	6	7	10	10	10
SRAJ/TG/74	7	10	8	8	8	10	7	10
SRAJ/TG/75	6	9	10	8	8	7	10	10
SRAJ/TG/76	7	9	9	10	9	10	10	10
SRAJ/TG/77	6	6	7	6	7	10	10	10

Table No. I.33 Total Weightage Score of plus trees of *Tectona grandis* in BTR west Division after Rejection

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
SRAJ/TG/69	10.5	20	12	1.5	1.75	15	15	10	85.75
SRAJ/TG/71	15	20	20	2.5	2.5	15	10.5	10	95.5
SRAJ/TG/72	12	20	20	2	1.75	15	15	10	95.75
SRAJ/TG/73	9	14	16	1.5	1.75	15	15	10	82.25
SRAJ/TG/74	10.5	20	16	2	2	15	10.5	10	86
SRAJ/TG/75	9	18	20	2	2	10.5	15	10	86.5
SRAJ/TG/76	10.5	18	18	2.5	2.25	15	15	10	91.25
SRAJ/TG/77	9	12	14	1.5	1.75	15	15	10	78.25

Table I.34 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at breast interval	Score	Crown width interval	Score	No of branches	Score
15.80-17.40	6	7.80-9.80	6	1.53-1.67	6	7.80-8.60	6	9-10	6
17.50-19.10	7	9.90-11.90	7	1.68-1.82	7	8.70-9.50	7	11-12	7
19.20-20.80	8	12.00-14.00	8	1.83-1.97	8	9.60-10.40	8	13-14	8
20.90-22.50	9	14.10-16.10	9	1.98-2.12	9	10.50-11.30	9	15-16	9
22.60-24.20	10	16.20-18.20	10	2.13-2.27	10	11.40-12.20	10	17-18	10

Table I.35 Scored data of Plus Trees of *Terminalia bellirica* in Buxa Tiger Reserve Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SRAJ/TB/11	6	6	9	8	10	**10**	**10**	**10**
SRAJ/TB/12	7	7	6	6	7	**10**	**10**	**10**
SRAJ/TB/13	7	6	10	10	10	**7**	**10**	**10**
SRAJ/TB/2	10	10	9	9	9	7	7	10

Table I.36 Total Weightage Score of plus trees of *Terminalia bellirica* in BTR west Division after Rejection

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
SRAJ/TB/11	9	12	18	2	2.5	15	15	10	83.5
SRAJ/TB/12	10.5	14	12	1.5	1.75	15	15	10	79.75
SRAJ/TB/13	10.5	12	20	2.5	2.5	10.5	15	10	83
SRAJ/TB/2	15	20	18	2.25	2.25	10.5	10.5	10	88.5

Table No. I.37 Class Interval and Respective Scores for Quantitative Traits of *Terminalia myriocarpa* in Buxa Tiger Reserve Division

Height interval	Score	Clear bole height interval	Score	Girth at Breast height interval	Score	Crown Width interval	Score	No of branches	Score
15.5-17.0	6	8.5-10.0	6	1.13-1.18	6	6.30-7.00	6	3-4	6
17.1-18.6	7	10.1-11.6	7	1.19-1.24	7	7.10-7.80	7	5-6	7
18.7-20.2	8	11.7-13.2	8	1.25-1.30	8	7.90-8.60	8	7-8	8
20.3-21.8	9	13.3-14.8	9	1.31-1.36	9	8.70-9.40	9	9-10	9
21.9-23.4	10	14.9-16.4	10	1.37-1.42	10	9.50-10.20	10	11-12	10

Table No. I.38 Scored data of Plus Trees of *Terminalia myriocarpa* in Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast height(m)	Crown Width(m)	No of branches	Stem Straightne ss	Stem Form	Infec tion
SRAJ/TM/18	6	8	9	10	6	7	10	10
SRAJ/TM/20	9	8	9	6	10	10	10	10
SRAJ/TM/23	10	6	10	8	8	10	10	10
SRAJ/TM/24	6	6	8	10	7	7	10	10
SRAJ/TM/25	10	7	9	6	8	7	10	10
SRAJ/TM/26	8	6	6	10	8	7	7	10
SRAJ/TM/27	6	10	6	10	9	7	7	10

Table No. I.39 Weightage Score for Each Trait of Plus Trees of *Terminalia myriocarpa* in Buxa Tiger Reserve Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straig htness	Stem For m	Infec tion	Total Weightag e Score
SRAJ/TM/18	9	16	18	2.5	1.5	10.5	15	10	82.5
SRAJ/TM/20	13.5	16	18	1.5	2.5	15	15	10	91.5
SRAJ/TM/23	15	12	20	2	2	15	15	10	91
SRAJ/TM/24	9	12	16	2.5	1.75	10.5	15	10	76.75
SRAJ/TM/25	15	14	18	1.5	2	10.5	15	10	86
SRAJ/TM/26	12	12	12	2.5	2	10.5	10.5	10	71.5
SRAJ/TM/27	9	20	12	2.5	2.25	10.5	10.5	10	76.75

Table No. I.40 Class Interval and Respective Scores for Quantitative Traits of *Bombax ceiba* in Cooch Bihar Division

Height interval	Scor e	Clear bole height interval	Sco re	Girth at breast interval	Sc or e	Crown width interval	Sco re	No of branches	Score
19.80-20.80	6	15.80-17.00	6	1.49-1.68	6	4.80-6.60	6	3	6
20.90-21.90	7	17.10-18.30	7	1.69-1.88	7	6.70-8.50	7	4	7
22.00-23.00	8	18.40-19.60	8	1.89-2.08	8	8.60-10.40	8	5	8
23.10-24.10	9	19.70-20.90	9	2.09-2.28	9	10.50-12.30	9	6	9
24.20-25.20	10	21.00-22.20	10	2.29-2.48	10	12.40-14.20	10	7	10

Table No. I.41 Scored data of Plus Trees of *Bombax ceiba in* Cooch Bihar Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
ATIA/BC/17	7	6	8	9	10	10	10	10
ATIA/BC/18	10	10	7	10	6	10	10	10
ATIA/BC/19	6	6	6	6	7	10	10	10
ATIA/BC/20	7	6	10	7	10	10	10	10

Table No. I.42 Weightage Score for Each Trait of Plus Trees of *Bombax ceiba* in Cooch Bihar Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection	Total Weightage Score
ATIA/BC/17	10.5	12	16	2.25	2.5	15	15	10	83.25
ATIA/BC/18	15	20	14	2.5	1.5	15	15	10	93
ATIA/BC/19	9	12	12	1.5	1.75	15	15	10	76.25
ATIA/BC/20	10.5	12	20	1.75	2.5	15	15	10	86.75

Table No. I.43 Class Interval and Respective Scores for Quantitative Traits of *Gmelina arborea* in Cooch Bihar Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
12.8-13.2	6	7.6-8.4	6	1.10-1.30	6	3.6-4.4	6	2-3	6
13.3-13.7	7	8.5-9.3	7	1.31-1.51	7	4.5-5.3	7	4-5	7
13.8-14.2	8	9.4-10.2	8	1.52-1.72	8	5.4-6.2	8	6-7	8
14.3-14.7	9	10.3-11.1	9	1.73-1.93	9	6.3-7.1	9	8-9	9
14.8-15.2	10	11.2-12.0	10	1.94-2.14	10	7.2-8.0	10	10-11	10

Table No. I.44 Scored data of Plus Trees of *Gmelina arborea* in Cooch Bihar Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ATIA/GA/32	6	6	9	8	7	10	7	10
ATIA/GA/33	8	9	6	7	7	10	10	10
ATIA/GA/34	10	6	10	10	7	10	10	10
ATIA/GA/35	10	10	9	10	9	10	10	10
ATIA/GA/37	6	8	8	10	8	10	7	10
ATIA/GA/46	8	8	8	6	6	10	10	10

Table No. I.45 Weightage Score for Each Trait of Plus Trees of *Gmelina arborea* in Cooch Bihar Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ATIA/GA/32	9	12	18	2	1.75	15	10.5	10	78.25
ATIA/GA/33	12	18	12	1.75	1.75	15	15	10	85.5
ATIA/GA/34	15	12	20	2.5	1.75	15	15	10	91.25
ATIA/GA/35	15	20	18	2.5	2.25	15	15	10	97.75
ATIA/GA/37	9	16	16	2.5	2	15	10.5	10	81
ATIA/GA/46	12	16	16	1.5	1.5	15	15	10	87

Table No. I.46 Class Interval and Respective Scores for Quantitative Traits of *Albizzia procera* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
23-23.9	6	14-14.2	6	1.81-2.06	6	11-12.5	6	4-6	6
24-24.9	7	14.3-14.5	7	2.07-2.32	7	12.6-14.1	7	7-9	7
25-25.9	8	14.6-14.8	8	2.33-2.58	8	14.2-15.7	8	10-12	8
26-26.9	9	14.9-15.1	9	2.59-2.84	9	15.8-17.3	9	13-15	9
27-27.9	10	15.2-15.3	10	2.85-3.1	10	17.4-18.9	10	16-18	10

Table No. I.47 Scored data of Plus Trees of *Albizzia procera* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SURS/AP/4	10	6	10	9	8	7	7	10
CMOR/AP/2	9	9	6	7	8	7	7	10
CMOR/AP/3	6	6	6	6	6	7	10	10

Table No. I.48 Weightage Score for Each Trait of Plus Trees of *Albizzia procera* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SURS/AP/4	15	12	20	2.25	2	10.5	10.5	10	82.25
CMOR/AP/2	13.5	18	12	1.75	2	10.5	10.5	10	78.25
CMOR/AP/3	9	12	12	1.5	1.5	10.5	15	10	71.5

Table No. I.49 Class Interval and Respective Scores for Quantitative Traits of *Amoora wallichii* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
29-30	6	6.5-9.8	6	1.85-2.05	6	9-11	6	6-8	6
31-32	7	9.9-13.2	7	2.06-2.26	7	12-14	7	9-11	7
33-34	8	13.3-16.6	8	2.27-2.47	8	15-17	8	12-14	8
35-36	9	16.7-20	9	2.48-2.68	9	18-20	9	15-17	9
37-38	10	20.1-23.4	10	2.69-2.89	10	21-23	10	18-20	10

Table No. I.50 Scored data of Plus Trees of *Amoora wallichii in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CENT/AW/5	7	7	10	9	10	10	10	10
CENT/AW/6	6	6	9	10	10	10	10	10
BICHA/AW/1	8	6	10	8	9	10	10	10
BICHA/AW/2	8	9	8	8	6	10	10	10
BICHA/AW/3	9	10	6	6	6	10	7	10

Table No. I.51 Weightage Score for Each Trait of Plus Trees of *Amoora wallichii* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CENT/AW/5	10.5	14	20	2.25	2.5	15	15	10	89.25
CENT/AW/6	9	12	18	2.5	2.5	15	15	10	84
BICHA/AW/1	12	12	20	2	2.25	15	15	10	88.25
BICHA/AW/2	12	18	16	2	1.5	15	15	10	89.5
BICHA/AW/3	13.5	20	12	1.5	1.5	15	10.5	10	84

Table No. I.52 Class Interval and Respective Scores for Quantitative Traits of *Bombax ceiba* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
23-25	6	16-18.8	6	2-2.75	6	6-8	6	4-6	6
26-28	7	18.9-21.7	7	2.76-3.51	7	9-11	7	7-9	7
29-31	8	21.8-24.6	8	3.52-4.27	8	12-14	8	10-12	8
32-34	9	24.7-27.5	9	4.28-5.03	9	15-17	9	13-15	9
35-37	10	27.6-30.4	10	5.04-5.79	10	18-20	10	16-18	10

Table No. I.53 Scored data of Plus Trees and Candidate Plus Tree of *Bombax ceiba* in Jalpaiguri Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast height (m)	Crown width(m)	No of Branches	Stem Straightness	Stem Form	Infection
RETI- BC/3	8	6	10	9	9	10	10	10
RETI/ BC/4	8	7	8	9	8	7	7	10
RETI/ BC/5	8	7	8	10	9	10	10	10
PAN/BC/11	9	8	6	10	7	10	7	10
DIANA/BC/12	10	10	7	9	9	10	10	10
DIANA/BC/13	10	8	7	10	10	10	7	10
SURS/BC/1	6	6	6	6	6	10	10	10

Table No. I.54 Weightage Score for Each Trait of Plus Trees and Candidate Plus Tree of *Bombax ceiba* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RETI/ BC/3	12	12	20	2.25	2.25	15	15	10	88.5
RETI/ BC/4	12	14	16	2.25	2	10.5	10.5	10	77.25
RETI/ BC/5	12	14	16	2.5	2.25	15	15	10	86.75
PAN/BC/11	13.5	16	12	2.5	1.75	15	10.5	10	81.25
DIANA/BC/12	15	20	14	2.25	2.25	15	15	10	93.5
DIANA/BC/13	15	16	14	2.5	2.5	15	10.5	10	85.5
SURS/BC/1	9	12	12	1.5	1.5	15	15	10	76

Table No. I.55 Class Interval and Respective Scores for Quantitative Traits of *Chukrasia tabularis in* Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
15.8-19.0	6	8.8-11.8	6	1.57-1.80	6	4.8-7.2	6	4.8-6.8	6
19.1-22.3	7	11.9-14.9	7	1.81-2.04	7	7.3-9.7	7	6.9-8.9	7
22.4-25.6	8	15-18	8	2.05-2.28	8	9.8-12.2	8	9.0-11.0	8
25.7-28.9	9	18.1-21.1	9	2.29-2.52	9	12.3-14.7	9	11.1-13.1	9
29-32.2	10	21.2-24.2	10	2.53-2.76	10	14.8-17.2	10	13.2-15.2	10

Table No. I.56 Scored data of Plus Trees of *Chukrasia tabularis in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SURS/CT/18	10	10	8	6	10	10	10	10
SURS/CT/19	10	10	9	8	7	10	10	10
SURS/CT/20	8	9	6	9	6	10	10	10
SURS/CT/21	8	6	7	8	6	7	7	10
SURS/CT/22	9	6	7	8	6	10	7	10
SURS/CT/23	8	8	10	10	8	7	10	10
RETI /CT/2	10	10	10	8	8	10	7	10
PANJ/CT/14	6	6	7	6	7	10	7	10
PANJ/CT/15	9	7	6	8	8	10	7	10
PANJ/CT/16	10	9	8	10	9	10	7	10
PANJ/CT/17	7	6	7	8	7	10	7	10
CMOR/CT/31	9	8	7	7	7	10	7	10
CMOR/CT/32	9	6	8	9	9	10	7	10

Table No. I.57 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SURS/CT/18	15	20	16	1.5	2.5	15	15	10	95
SURS/CT/19	15	20	18	2	1.75	15	15	10	96.75
SURS/CT/20	12	18	12	2.25	1.5	15	15	10	85.75
SURS/CT/21	12	12	14	2	1.5	10.5	10.5	10	72.5
SURS/CT/22	13.5	12	14	2	1.5	15	10.5	10	78.5
SURS/CT/23	12	16	20	2.5	2	10.5	15	10	88
RETI /CT/2	15	20	20	2	2	15	10.5	10	94.5
PANJ/CT/14	9	12	14	1.5	1.75	15	10.5	10	73.75
PANJ/CT/15	13.5	14	12	2	2	15	10.5	10	79
PANJ/CT/16	15	18	16	2.5	2.25	15	10.5	10	89.25
PANJ/CT/17	10.5	12	14	2	1.75	15	10.5	10	75.75
CMOR/CT/31	13.5	16	14	1.75	1.75	15	10.5	10	82.5
CMOR/CT/32	13.5	12	16	2.25	2.25	15	10.5	10	81.5

Table No. I.58 Class Interval and Respective Scores for Quantitative Traits of *Dalbergia sissoo* in Jalpaiguri Division

Height interval	Score	Clear bole height interval	Score	Girth at breast interval	Score	Crown width interval	Score	No of branches	Score
18-19.2	6	6.5-7.8	6	1.46-1.52	6	9-9.6	6	8-9	6
19.3-20.5	7	7.9-9.2	7	1.53-1.59	7	9.7-10.3	7	10-11	7
20.6-21.8	8	9.3-10.6	8	1.60-1.66	8	10.4-11	8	12-13	8
21.9-23.1	9	10.7-12	9	1.67-1.73	9	11.1-11.7	9	14-15	9
23.2-24.4	10	12.1-13.4	10	1.74-1.80	10	11.8-12.4	10	16-17	10

Table No. I.59 Scored data of Plus Trees of *Dalbergia sissoo in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PANJ/DS/9	10	6	8	6	8	7	7	10
DIANA/DS/18	6	6	9	10	8	10	10	10
DIANA/DS/22	7	10	6	6	6	10	7	10

Table No. I.60 Weightage Score for Each Trait of Plus Trees of *Dalbergia sissoo* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PANJ/DS/9	15	12	16	1.5	2	10.5	10.5	10	77.5
DIANA/DS/18	9	12	18	2.5	2	15	15	10	83.5
DIANA/DS/22	10.5	20	12	1.5	1.5	15	10.5	10	81

Table No. I.61 Class Interval and Respective Scores for Quantitative Traits of *Dipterocarpus marsupium* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
27-27.8	6	14-15.4	6	1.3-1.32	6	2-3	6	5-6	6
27.9-28.7	7	15.5-16.9	7	1.33-1.35	7	4-5	7	7-8	7
28.8-29.6	8	17-18.4	8	1.36-1.38	8	6-7	8	9-10	8
29.7-30.5	9	18.5-19.9	9	1.39-1.41	9	8-9	9	11-12	9
30.6-31.4	10	20-21.4	10	1.42-1.44	10	10-11	10	13-14	10

Table No. I.62 Scored data of Plus Trees of *Dipterocarpus marsupium* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CMOR/DM/1	9	10	6	8	10	10	10	10
CMOR/DM/2	10	6	9	8	8	10	10	10
CMOR/DM/3	6	10	6	8	8	10	10	10

Table No. I.63 Weightage Score for Each Trait of Plus Trees of *Dipterocarpus marsupium* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CMOR/DM/1	13.5	20	12	2	2.5	15	15	10	90
CMOR/DM/2	15	12	18	2	2	15	15	10	89
CMOR/DM/3	9	20	12	2	2	15	15	10	85

Table No. I.64 Class Interval and Respective Scores for Quantitative Traits of *Dipterocarpus turbinatus* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
26-30	6	2-7	6	1.30-1.40	6	4-4.8	6	6-8	6
31-35	7	8-13	7	1.41-1.51	7	4.9-5.7	7	9-11	7
36-40	8	14-19	8	1.52-1.62	8	5.8-6.5	8	12-14	8
41-45	9	20-25	9	1.63-1.73	9	6.6-7.4	9	15-17	9
46-50	10	26-31	10	1.74-1.84	10	7.5-8.3	10	18-20	10

Table No. I.65 Scored data of Plus Trees of *Dipterocarpus turbinatus* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
LATA/DT/8	6	8	10	8	10	10	7	10
CMOR/DT/4	6	9	6	8	7	10	10	10
CMOR/DT/5	7	10	6	7	6	10	10	10
CMOR/DT/6	6	10	6	6	6	10	10	10
CMOR/DT/7	7	10	6	8	7	10	10	10
SMOR/DT/2	10	6	10	10	7	10	7	10

Table No. I.66 Weightage Score for Each Trait of Plus Trees of *Dipterocarpus turbinatus* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
LATA/DT/8	9	16	20	2	2.5	15	10.5	10	85
CMOR/DT/4	9	18	12	2	1.75	15	15	10	82.75
CMOR/DT/5	10.5	20	12	1.75	1.5	15	15	10	85.75
CMOR/DT/6	9	20	12	1.5	1.5	15	15	10	84
CMOR/DT/7	10.5	20	12	2	1.75	15	15	10	86.25
SMOR/DT/2	15	12	20	2.5	1.75	15	10.5	10	86.75

Table No. I.67 Class Interval and Respective Scores for Quantitative Traits of *Gmelina arborea* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
11.86-15.40	6	5.80-9.40	6	0.89-1.15	6	3.90-6.10	6	0	6
15.50-19.10	7	9.50-13.10	7	1.16-1.42	7	6.20-8.40	7	1-3	7
19.20-22.80	8	13.20-16.80	8	1.43-1.69	8	8.50-10.70	8	4-6	8
22.90-26.50	9	16.90-20.50	9	1.70-1.96	9	10.80-13.00	9	7-9	9
26.60-30.20	10	20.60-24.20	10	1.97-2.23	10	13.10-15.30	10	10-12	10

Table No. I.68 Scored data of Plus Trees of *Gmelina arborea* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RETI/ GA / 26	10	7	10	9	9	10	7	10
RETI/ GA / 25	10	9	10	7	9	7	7	10
RETI/ GA / 24	10	10	8	7	8	10	7	10
CENT/GA/7	8	6	7	6	7	7	7	10
CENT/GA/8	9	8	6	6	8	7	7	10
CENT/GA/9	9	9	7	7	9	7	7	10
CENT/GA/10	8	7	6	7	8	7	7	10
CENT/GA/11	9	9	7	8	9	7	7	10
SURS/GA/12	8	6	6	6	7	7	10	10
SURS/GA/13	7	6	10	10	10	7	7	10
CENT/GA/6	8	6	7	6	7	7	7	10
BARA/GA/18	7	7	9	6	8	7	7	10
BARA/GA/19	6	6	7	6	7	7	7	10
BARA/GA/20	7	7	10	7	8	7	7	10
BARA/GA/21	8	7	9	6	9	7	7	10
BARA/GA/22	7	7	9	6	8	7	7	10
BARA/GA/23	7	7	9	6	9	7	7	10

Table No. I.69 Weightage Score for Each Trait of Plus Trees of *Gmelina arborea* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RETI/ GA / 26	15	14	20	2.25	2.25	15	10.5	10	89
RETI/ GA / 25	15	18	20	1.75	2.25	10.5	10.5	10	88
RETI/ GA / 24	15	20	16	1.75	2	15	10.5	10	90.25
CENT/GA/7	12	12	14	1.5	1.75	10.5	10.5	10	72.25
CENT/GA/8	13.5	16	12	1.5	2	10.5	10.5	10	76
CENT/GA/9	13.5	18	14	1.75	2.25	10.5	10.5	10	80.5
CENT/GA/10	12	14	12	1.75	2	10.5	10.5	10	72.75
CENT/GA/11	13.5	18	14	2	2.25	10.5	10.5	10	80.75
SURS/GA/12	12	12	12	1.5	1.75	10.5	15	10	74.75
SURS/GA/13	10.5	12	20	2.5	2.5	10.5	10.5	10	78.5
CENT/GA/6	12	12	14	1.5	1.75	10.5	10.5	10	72.25
BARA/GA/18	10.5	14	18	1.5	2	10.5	10.5	10	77
BARA/GA/19	9	12	14	1.5	1.75	10.5	10.5	10	69.25
BARA/GA/20	10.5	14	20	1.75	2	10.5	10.5	10	79.25
BARA/GA/21	12	14	18	1.5	2.25	10.5	10.5	10	78.75
BARA/GA/22	10.5	14	18	1.5	2	10.5	10.5	10	77
BARA/GA/23	10.5	14	18	1.5	2.25	10.5	10.5	10	77.25

Table No. I.70 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia parviflora* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
23.80-25.40	6	9.80-10.80	6	1.89-2.20	6	5.80-8.60	6	6-8	6
25.50-27.10	7	10.90-11.90	7	2.21-2.52	7	8.70-11.50	7	9-11	7
27.20-28.80	8	12.00-13.00	8	2.53-2.84	8	11.60-14.40	8	12-14	8
28.90-30.50	9	13.10-14.10	9	2.85-3.16	9	14.50-17.30	9	15-17	9
30.60-32.20	10	14.20-15.20	10	3.17-3.48	10	17.40-20.20	10	18-20	10

Table No. I.71 Scored data of Plus Trees of *Lagerstroemia parviflora* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BICHA/LP/6	10	10	6	9	10	10	7	10
DIANA/LP/4	10	6	10	10	8	10	10	10
DIANA/LP/5	10	6	10	8	9	10	7	10
BARA/LP/7	6	9	6	6	6	10	7	10

Table No. I.72 Weightage Score for Each Trait of Plus Trees of *Lagerstroemia parviflora* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BICHA/LP/6	15	20	12	2.25	2.5	15	10.5	10	87.25
DIANA/LP/4	15	12	20	2.5	2	15	15	10	91.5
DIANA/LP/5	15	12	20	2	2.25	15	10.5	10	86.75
BARA/LP/7	9	18	12	1.5	1.5	15	10.5	10	77.5

Table No. I.73 Class Interval and Respective Scores for Quantitative Traits of *Sterculia villosa in* Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
29.8-30	6	12.8-13.2	6	2.96-3.07	6	8.8-10.6	6	8.8-11	6
30.1-30.3	7	13.3-13.7	7	3.08-3.19	7	10.7-12.5	7	11.1-13.3	7
30.4-30.6	8	13.8-14.2	8	3.20-3.31	8	12.6-14.4	8	13.4-15.6	8
30.7-30.9	9	14.3-14.7	9	3.32-3.43	9	14.5-16.3	9	15.7-17.9	9
31-31.2	10	14.8-15.2	10	3.44-3.55	10	16.4-18.2	10	18-20.2	10

Table No. I.74 Scored data of Plus Trees of *Sterculia villosa in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DIANA/SV/1	6	10	6	6	6	10	7	10
DIANA/SV/2	6	8	10	8	8	10	10	10
DIANA/SV/3	10	6	6	10	10	10	10	10
DIANA/SV/4	6	8	6	6	6	10	7	10

Table No. I.75 Weightage Score for Each Trait of Plus Trees of *Sterculia villosa in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DIANA/SV/1	9	20	12	1.5	1.5	15	10.5	10	79.5
DIANA/SV/2	9	16	20	2	2	15	15	10	89
DIANA/SV/3	15	12	12	2.5	2.5	15	15	10	84
DIANA/SV/4	9	16	12	1.5	1.5	15	10.5	10	75.5

Table No. I.76 Class Interval and Respective Scores for Quantitative Traits of *Swietenia mahogany in* Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
37.8-38.6	6	9.8-10	6	2.78-2.82	6	9.8-10.2	6	7.8-8.8	6
38.7-39.5	7	10.1-10.3	7	2.83-2.87	7	10.3-10.7	7	8.9-9.9	7
39.6-40.4	8	10.4-10.6	8	2.88-2.92	8	10.8-11.2	8	10-11	8
40.5-41.3	9	10.7-10.9	9	2.93-2.97	9	11.3-11.7	9	11.1-12.1	9
41.4-42.2	10	11-11.2	10	2.98-3.02	10	11.8-12.2	10	12.2-13.2	10

Table No. I.77 Scored data of Plus Trees of *Swietenia mahogany in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SMOR/SM/3	6	6	10	10	6	10	7	38
SMOR/SM/4	10	10	6	6	10	10	7	42

Table No. I.78 Weightage Score for Each Trait of Plus Trees of *Swietenia mahogany in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SMOR/SM/3	9	12	20	2.5	1.5	15	10.5	38	108.5
SMOR/SM/4	15	20	12	1.5	2.5	15	10.5	42	118.5

Table No. I.79 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica in* Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
18.80-20.60	6	5.80-8.40	6	1.73-1.87	6	5.80-8.40	6	6-8	6
20.70-22.50	7	8.50-11.10	7	1.88-2.02	7	8.50-11.10	7	9-11	7
22.60-24.40	8	11.20-13.80	8	2.03-2.17	8	11.20-13.80	8	12-14	8
24.50-26.30	9	13.90-16.50	9	2.18-2.32	9	13.90-16.50	9	15-17	9
26.40-28.20	10	16.60-19.20	10	2.33-2.47	10	16.60-19.20	10	18-20	10

Table No. I.80 Scored data of Plus Trees of *Terminalia bellirica in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DIANA/TB/7	10	9	10	7	6	10	7	10
DIANA/TB/8	10	7	10	6	8	10	7	10
DIANA/TB/9	6	8	6	7	6	10	7	10
BARA/TB/11	10	10	9	6	10	10	10	10
BICHA/TB/3	6	7	9	6	7	10	10	10

Table No. I.81 Weightage Score for Each Trait of Plus Trees of *Terminalia bellirica in* Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DIANA/TB/7	15	18	20	1.75	1.5	15	10.5	10	91.75
DIANA/TB/8	15	14	20	1.5	2	15	10.5	10	88
DIANA/TB/9	9	16	12	1.75	1.5	15	10.5	10	75.75
BARA/TB/11	15	20	18	1.5	2.5	15	15	10	97
BICHA/TB/3	9	14	18	1.5	1.75	15	15	10	84.25

Table No. I.82 Class Interval and Respective Scores for Quantitative Traits of *Terminalia tomentosa* in Jalpaiguri Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
27.8-28.6	6	15.8-16.4	6	1.44-1.53	6	6.8-9	6	4.8-5	6
28.7-29.5	7	16.5-17.3	7	1.54-1.62	7	9.1-11.3	7	5.1-5.3	7
30-30.4	8	17.4-18.2	8	1.63-1.72	8	11.4-13.5	8	5.4-5.6	8
30.5-31.3	9	18.3-19.1	9	1.73-1.82	9	13.6-15.7	9	5.7-5.9	9
31.4-32.2	10	19.2-20	10	1.83-1.92	10	15.8-18	10	6-6.2	10

Table No. I.83 Scored data of Plus Trees and Candidate Plus Tree of *Terminalia tomentosa* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SURS/TT/22	10	10	6	6	10	10	7	10
SURS/TT/24	6	10	9	6	10	10	7	10
CENT/TT/10	10	6	10	10	6	10	7	10

Table No. I.84 Weightage Score for Each Trait of Plus Trees and Candidate Plus Tree of *Terminalia tomentosa* in Jalpaiguri Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SURS/TT/22	15	20	12	1.5	2.5	15	10.5	10	86.5
SURS/TT/24	9	20	18	1.5	2.5	15	10.5	10	86.5
CENT/TT/10	15	12	20	2.5	1.5	15	10.5	10	86.5

Table No. I.85 Class Interval and Respective Scores for Quantitative Traits of *Acrocarpus fraxinifolius* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
18.00-19.40	6	9.80-11.40-	6	2.00-2.20	6	7.00-9.00	6	2-4	6
19.50-20.90	7	11.50-13.10	7	2.30-2.50	7	9.10.11.10	7	5-7	7
21.00-22.40	8	13.20-14.80	8	2.60-2.80	8	11.10-13.20	8	8-10	8
22.50-23.90	9	14.90-16.50	9	2.90-3.10	9	13.30-15.30	9	11-13	9
24.00-25.40	10	16.60-18.20	10	3.20-3.40	10	15.40-17.40	10	14-16	10

Table No. I.86 Scored data of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHAIR/AF/2	10	10	7	10	10	7	7	10
KHAIR/AF/4	9	7	9	9	9	10	10	10
KHAIR/AF/1	6	6	9	7	10	7	7	10
KHAIR/AF/6	7	6	7	7	7	10	7	10
KHAIR/AF/7	8	9	9	6	10	7	7	10
KHAIR/AF/8	6	7	7	7	8	10	7	10
KHAIR/AF/9	6	8	6	6	8	10	7	10
KHAIR/AF/10	8	10	7	6	8	7	7	10

Table No. I.87 Weightage Score for Each Trait of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHAIR/AF/2	15	20	14	2.5	2.5	10.5	10.5	10	85
KHAIR/AF/4	13.5	14	18	2.25	2.25	15	15	10	90
KHAIR/AF/1	9	12	18	1.75	2.5	10.5	10.5	10	74.25
KHAIR/AF/6	10.5	12	14	1.75	1.75	15	10.5	10	75.5
KHAIR/AF/7	12	18	18	1.5	2.5	10.5	10.5	10	83
KHAIR/AF/8	9	14	14	1.75	2	15	10.5	10	76.25
KHAIR/AF/9	9	16	12	1.5	2	15	10.5	10	76
KHAIR/AF/10	12	20	14	1.5	2	10.5	10.5	10	80.5

Table No. I.88 Class Interval and Respective Scores for Quantitative Traits of *Adina cordifolia* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
18.80-19.60	6	9.80-10.80	6	1.18-1.35	6	3.80-4.80	6	4-5	6
19.70-20.50	7	10.90-11.90	7	1.36-1.53	7	4.90-5.90	7	6-7	7
20.60-21.40	8	12.00-13.00	8	1.54-1.71	8	6.00-7.00	8	8-9	8
21.50-22.30	9	13.10-14.10	9	1.72-1.89	9	7.10-8.10	9	10-11	9
22.40-23.20	10	14.20-15.20	10	1.90-2.07	10	8.20-9.20	10	12-13	10

Table No. I.89 Scored data of Plus Trees of *Adina cordifolia in* Kurseong Division

Tree No.	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Stem Straightness	Stem Form	Infection
TURK/ACO/2	8	6	10	8	9	10	10	10
TURK/ACO/3	9	10	9	10	9	10	7	10
TURK/ACO/5	10	10	6	6	6	10	10	10
TURK/ACO/6	7	8	9	6	10	7	7	10
TURK/ACO/1	8	10	9	9	9	10	10	10
TURK/ACO/4	6	10	9	10	10	10	10	10

Table No. I.90 Weightage Score for Each Trait of Plus Trees of *Adina cordifolia* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
TURK/ACO/2	12	12	20	2	2.25	15	15	10	88.25
TURK/ACO/3	13.5	20	18	2.5	2.25	15	10.5	10	91.75
TURK/ACO/5	15	20	12	1.5	1.5	15	15	10	90
TURK/ACO/6	10.5	16	18	1.5	2.5	10.5	10.5	10	79.5
TURK/ACO/1	12	20	18	2.25	2.25	15	15	10	94.5
TURK/ACO/4	9	20	18	2.5	2.5	15	15	10	92

Table No. I.91 Class Interval and Respective Scores for Quantitative Traits of *Ailanthus grandis* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
11-20	6	21-24	6	1.60-2.00	6	5-5.4	6	1-2	6
21-30	7	25-28	7	2.01-2.41	7	5.5-5.9	7	3-4	7
31-40	8	29-32	8	2.42-2.82	8	6-6.4	8	5-6	8
41-50	9	33-36	9	2.83-3.23	9	6.5-6.9	9	7-8	9
51-60	10	37-40	10	3.24-3.64	10	7-7.4	10	9-10	10

Table No. I.92 Scored data of Plus Trees of *Ailanthus grandis* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHAIR/AG/1	10	6	6	8	9	7	7	10
KHAIR/AG/3	10	8	7	10	9	10	10	10
KHAIR/AG/4	10	9	7	6	8	7	7	10
KHAIR/AG/6	10	8	10	6	8	10	10	10
KHAIR/AG/8	10	6	7	6	9	10	10	10

Table No. I.93 Weightage Score for Each Trait of Plus Trees of *Ailanthus grandis* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHAIR/AG/1	15	12	12	2	2.25	10.5	10.5	10	74.25
KHAIR/AG/3	15	16	14	2.5	2.25	15	15	10	89.75
KHAIR/AG/4	15	18	14	1.5	2	10.5	10.5	10	81.5
KHAIR/AG/6	15	16	20	1.5	2	15	15	10	94.5
KHAIR/AG/8	15	12	14	1.5	2.25	15	15	10	84.75

Table No. I.94 Class Interval and Respective Scores for Quantitative Traits of *Chukrasia tabularis* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
21.80-23.40	6	10.80-13.00	6	1.80-2.08	6	6.00-8.80	6	4-7	6
23.50-25.10	7	13.10-15.30	7	2.09-2.37	7	8.90-11.70	7	8-11	7
25.20-26.80	8	15.40-17.60	8	2.38-2.66	8	11.80-14.60	8	12-15	8
26.90-28.50	9	17.70-19.90	9	2.67-2.95	9	14.70-17.50	9	16-19	9
28.60-30.20	10	20.00-22.20	10	2.96-3.24	10	17.60-20.40	10	20-23	10

Table No. I.95 Scored data of Plus Trees of *Chukrasia tabularis in* Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHAIR/CT/9	10	10	6	7	8	7	10	10
KHAIR/CT/10	7	7	7	8	6	10	10	10
KHAIR/CT/11	9	10	7	6	6	10	10	10
KHAIR/CT/12	9	10	8	9	7	10	10	10
LOHA/CT/1	7	6	9	7	9	10	10	10
LOHA/CT/2	7	6	9	10	10	10	10	10
LOHA/CT/3	6	7	10	7	10	10	10	10
KHAIR/CT/4	6	6	6	8	7	10	7	10
KHAIR/CT/5	7	9	7	8	7	10	7	10
KHAIR/CT/6	10	10	10	10	6	10	7	10
KHAIR/CT/7	7	8	7	9	8	10	7	10
KHAIR/CT/8	7	9	9	9	8	10	10	10
KHAIR/CT/13	6	7	7	7	8	10	7	10

Table No. I.96 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHAIR/CT/9	15	20	12	1.75	2	10.5	15	10	86.25
KHAIR/CT/10	10.5	14	14	2	1.5	15	15	10	82
KHAIR/CT/11	13.5	20	14	1.5	1.5	15	15	10	90.5
KHAIR/CT/12	13.5	20	16	2.25	1.75	15	15	10	93.5
LOHA/CT/1	10.5	12	18	1.75	2.25	15	15	10	84.5
LOHA/CT/2	10.5	12	18	2.5	2.5	15	15	10	85.5
LOHA/CT/3	9	14	20	1.75	2.5	15	15	10	87.25
KHAIR/CT/4	9	12	12	2	1.75	15	10.5	10	72.25
KHAIR/CT/5	10.5	18	14	2	1.75	15	10.5	10	81.75
KHAIR/CT/6	15	20	20	2.5	1.5	15	10.5	10	94.5
KHAIR/CT/7	10.5	16	14	2.25	2	15	10.5	10	80.25
KHAIR/CT/8	10.5	18	18	2.25	2	15	15	10	90.75
KHAIR/CT/13	9	14	14	1.75	2	15	10.5	10	76.25

Table No. I.97 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia hypoleuca* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
19.80-21.00	6	4.40-6.50	6	1.40-1.54	6	6.00-7.40	6	5-6	6
21.10-22.30	7	6.60-8.70	7	1.55-1.69	7	7.50-8.90	7	7-8	7
22.40-23.60	8	8.80-10.90	8	1.70-1.84	8	9.00-10.40	8	9-10	8
23.70-24.90	9	11.00-13.10	9	1.85-1.99	9	10.50-11.90	9	11-12	9
25.00-26.20	10	13.20-15.30	10	2.00-2.14	10	12.00-13.40	10	13-14	10

Table No. I.98 Scored data of Plus Trees of *Lagerstroemia hypoleuca* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHAIR/LH/2	10	9	6	6	8	10	10	10
KHAIR/LH/4	6	9	9	10	6	10	10	10
KHAIR/LH/5	7	9	7	9	8	10	10	10
KHAIR/LH/6	7	7	8	8	10	10	7	10
KHAIR/LH/7	6	10	6	8	6	10	10	10
KHAIR/LH/1	6	6	10	6	9	10	10	10
KHAIR/LH/8	6	6	8	7	8	10	7	10
KHAIR/LH/9	6	7	7	8	7	7	7	10
KHAIR/LH/10	7	6	9	10	10	10	10	10

Table No. I.99 Weightage Score for Each Trait of Plus Trees of *Lagerstroemia hypoleuca* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHAIR/LH/2	15	18	12	1.5	2	15	15	10	88.5
KHAIR/LH/4	9	18	18	2.5	1.5	15	15	10	89
KHAIR/LH/5	10.5	18	14	2.25	2	15	15	10	86.75
KHAIR/LH/6	10.5	14	16	2	2.5	15	10.5	10	80.5
KHAIR/LH/7	9	20	12	2	1.5	15	15	10	84.5
KHAIR/LH/1	9	12	20	1.5	2.25	15	15	10	84.75
KHAIR/LH/8	9	12	16	1.75	2	15	10.5	10	76.25
KHAIR/LH/9	9	14	14	2	1.75	10.5	10.5	10	71.75
KHAIR/LH/10	10.5	12	18	2.5	2.5	15	15	10	85.5

Table No. I.100 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
15.80-16.60	6	9.80-10.40	6	1.38-1.43	6	4.80-5.20	6	6-7	6
16.70-17.50	7	10.50-11.10	7	1.44-1.49	7	5.30-5.70	7	8-9	7
17.60-18.40	8	11.20-11.80	8	1.50-1.55	8	5.80-6.20	8	10-11	8
18.50-19.30	9	11.90-12.50	9	1.56-1.61	9	6.30-6.70	9	12-13	9
19.40-20.20	10	12.60-13.20	10	1.62-1.67	10	6.80-7.20	10	14-15	10

Table No. I.101 Scored data of Plus Trees of *Terminalia bellirica in* Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
TURK/TB/3	10	6	10	6	9	10	10	10
TURK/TB/4	8	6	6	6	10	10	7	10
TURK/TB/5	6	9	9	8	7	7	7	10
TURK/TB/6	9	10	9	10	7	10	7	10

Table No. I.102 Weightage Score for Each Trait of Plus Trees of in *Terminalia bellirica* Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
TURK/TB/3	15	12	20	1.5	2.25	15	15	10	90.75
TURK/TB/4	12	12	12	1.5	2.5	15	10.5	10	75.5
TURK/TB/5	9	18	18	2	1.75	10.5	10.5	10	79.75
TURK/TB/6	13.5	20	18	2.5	1.75	15	10.5	10	91.25

Table No. I.103 Class Interval and Respective Scores for Quantitative Traits of *Terminalia tomentosa* in Kurseong Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
16.80-18.80	6	6.80-8.60	6	1.63-1.80	6	3.30-5.60	6	5-8	6
18.90-20.90	7	8.70-10.50	7	1.81-1.98	7	5.70-8.00	7	9-12	7
21.00-23.00	8	10.60-12.40	8	1.99-2.16	8	8.10-10.40	8	13-16	8
23.10-25.10	9	12.50-14.30	9	2.17-2.34	9	10.50-12.80	9	17-20	9
25.20-27.20	10	14.40-16.20	10	-2.35-2.52	10	12.90-15.20	10	21-24	10

Table No. I.104 Scored data of Plus Trees of *Terminalia tomentosa* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
TUKR/TT/5	9	7	7	6	6	10	7	10
TUKR/TT/6	8	10	8	6	6	10	10	10
TUKR/TT/7	8	9	7	8	8	10	10	10
TUKR/TT/8	7	7	10	7	10	10	10	10
TUKR/TT/9	8	8	6	6	9	10	10	10
TUKR/TT/10	7	8	6	6	8	7	10	10
TUKR/TT/11	7	8	6	6	7	7	10	10
TUKR/TT/12	7	7	6	6	7	7	10	10
TUKR/TT/13	8	7	8	6	10	10	10	10
TUKR/TT/15	8	7	8	8	10	10	7	10
TUKR/TT/16	6	6	7	6	8	10	10	10
TUKR/TT/18	9	9	8	7	9	10	10	10
TUKR/TT/19	8	8	7	7	7	10	10	10
TUKR/TT/20	8	9	8	7	6	10	10	10
TUKR/TT/21	8	8	8	7	7	10	7	10
PANI/TT/1	9	6	6	8	8	10	10	10
PANI/TT/2	10	10	9	10	8	10	10	10

Table No. I.105 Weightage Score for Each Trait of Plus Trees of *Terminalia tomentosa* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
TUKR/TT/5	13.5	14	14	1.5	1.5	15	10.5	10	80
TUKR/TT/6	12	20	16	1.5	1.5	15	15	10	91
TUKR/TT/7	12	18	14	2	2	15	15	10	88
TUKR/TT/8	10.5	14	20	1.75	2.5	15	15	10	88.75
TUKR/TT/9	12	16	12	1.5	2.25	15	15	10	83.75
TUKR/TT/10	10.5	16	12	1.5	2	10.5	15	10	77.5
TUKR/TT/11	10.5	16	12	1.5	1.75	10.5	15	10	77.25
TUKR/TT/12	10.5	14	12	1.5	1.75	10.5	15	10	75.25
TUKR/TT/13	12	14	16	1.5	2.5	15	15	10	86
TUKR/TT/15	12	14	16	2	2.5	15	10.5	10	82
TUKR/TT/16	9	12	14	1.5	2	15	15	10	78.5
TUKR/TT/18	13.5	18	16	1.75	2.25	15	15	10	91.5
TUKR/TT/19	12	16	14	1.75	1.75	15	15	10	85.5
TUKR/TT/20	12	18	16	1.75	1.5	15	15	10	89.25
TUKR/TT/21	12	16	16	1.75	1.75	15	10.5	10	83
PANI/TT/1	13.5	12	12	2	2	15	15	10	81.5
PANI/TT/2	15	20	18	2.5	2	15	15	10	97.5

Table No. I.106 Class Interval and Respective Scores for Quantitative Traits of *Amoora wallichii* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
19.0-21.6	6	5-8.5	6	1.60-1.85	6	9-10	6	4-5	6
21.7-24.3	7	8.6-12.1	7	1.86-2.11	7	11-12	7	6-7	7
24.4-27.0	8	12.2-15.7	8	2.12-2.37	8	13-14	8	8-9	8
27.1-29.7	9	15.8-19.3	9	2.38-2.63	9	15-16	9	10-11	9
29.8-32.4	10	19.4-22.9	10	2.64-2.89	10	17-18	10	12-13	10

Table No. I.107 Scored data of Plus Trees of *Amoora wallichii in* Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BARA/AW/8	6	6	10	9	6	7	7	10
BARA/AW/9	10	10	6	6	7	10	10	10

Table No. I.108 Weightage Score for Each Trait of Plus Trees of *Amoora wallichii* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BARA/AW/8	9	12	20	2.25	1.5	10.5	10.5	10	75.75
BARA/AW/9	15	20	12	1.5	1.75	15	15	10	90.25

Table No. I.109 Class Interval and Respective Scores for Quantitative Traits of *Bombax ceiba* in Wildlife-II Division

Height interval	Score	Clear bole height interval	Score	Girth at breast height interval	Score	Crown Width interval	Score	No of Branches	Score
20	9	14	9	2.5	9	7	9	6	9
25	10	20	10	3.4	10	10	10	12	10

Table No. I.110 Scored data of Plus Trees of *Bombax ceiba in* Wildlife-II Division

Tree no	Total height (m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection
BARA-BC-7	10	10	10	10	10	10	10	10
BARA-BC-8	9	9	9	9	9	10	7	10

Table No. I.111 Weightage Score for Each Trait of Plus Trees of *Bombax ceiba* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BARA-BC-7	15	20	20	2.5	2.5	15	15	10	100
BARA-BC-8	13.5	18	18	2.25	2.25	15	10.5	10	89.5

Table No. I.112 Class Interval and Respective Scores for Quantitative Traits of *Chukrasia tabularis* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
30.0-30.2	6	21-21.4	6	1.65-1.77	6	8-8.6	6	6-7	6
30.3-30.5	7	21.5-21.9	7	1.78-1.90	7	8.7-9.3	7	8-9	7
30.6-30.8	8	22.0-22.4	8	1.91-2.03	8	9.4-10.0	8	10-11	8
30.9-31.1	9	22.5-22.9	9	2.04-2.16	9	10.1-10.7	9	12-13	9
31.2-31.4	10	23-23.4	10	2.17-2.29	10	10.8-11.4	10	14-15	10

Table No. I.113 Scored data of Plus Trees of *Chukrasia tabularis* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CELKA/CT/34	9	10	6	6	6	10	10	10
CELKA/CT/35	6	6	10	10	6	10	7	10

Table No. I.114 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CELKA/CT/34	13.5	20	12	1.5	1.5	15	15	10	88.5
CELKA/CT/35	9	12	20	2.5	1.5	15	10.5	10	80.5

Table No. I.115 Class Interval and Respective Scores for Quantitative Traits of *Gmelina arborea* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
30.0-30.6	6	8-12	6	1.30-1.50	6	4.7-5.3	6	2-3	6
30.7-31.3	7	9-13	7	1.51-1.71	7	5.4-6.0	7	4-5	7
31.4-32.0	8	14-18	8	1.72-1.92	8	6.1-6.7	8	6-7	8
32.6-33.2	9	19-23	9	1.93-2.13	9	6.8-7.4	9	8-9	9
33.3-33.9	10	24-28	10	2.14-2.34	10	7.5-8.1	10	10-11	10

Table No. I.116 Scored data of Plus Trees of *Gmelina arborea in* Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BARA/GA/18	8	10	8	6	8	10	10	10
BARA/GA/19	6	6	6	6	7	10	10	10
BARA/GA/20	9	10	9	10	7	10	7	10
BARA/GA/21	7	6	7	10	6	10	10	10
BARA/GA/22	6	6	8	7	7	10	10	10
BARA/GA/23	7	8	7	9	7	10	7	10

Table No. I.117 Weightage Score for Each Trait of Plus Trees of *Gmelina arborea* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BARA/GA/18	12	20	16	1.5	2	15	15	10	91.5
BARA/GA/19	9	12	12	1.5	1.75	15	15	10	76.25
BARA/GA/20	13.5	20	18	2.5	1.75	15	10.5	10	91.25
BARA/GA/21	10.5	12	14	2.5	1.5	15	15	10	80.5
BARA/GA/22	9	12	16	1.75	1.75	15	15	10	80.5
BARA/GA/23	10.5	16	14	2.25	1.75	15	10.5	10	80

Table No. I.118 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia flos reginae* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
27.6-28.4	6	10-12.5	6	1.52-1.56	6	4-5	6	2-3	6
28.5-29.3	7	12.6-15.1	7	1.57-1.61	7	6-7	7	4-5	7
29.4-30.2	8	15.2-17.7	8	1.62-1.66	8	8-9	8	6-7	8
30.3-31.1	9	17.8-20.3	9	1.67-1.71	9	10-11	9	8-9	9
31.2-32.0	10	20.4-22.9	10	1.72-1.76	10	12-13	10	10-11	10

Table No. I.119 Scored data of Plus Trees of *Lagerstroemia flos reginae* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BARA/LF/26	8	10	7	6	6	7	7	10
BARA/LF/27	6	6	10	9	8	10	10	10
BARA/LF/28	10	7	6	8	7	10	10	10

Table No. I.120 Weightage Score for Each Trait of Plus Trees of *Lagerstroemia flos reginae* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BARA/LF/26	8	5	7	15	18	3.5	3.5	10	70
BARA/LF/27	6	3	10	22.5	24	5	5	10	85.5
BARA/LF/28	10	3.5	6	20	21	5	5	10	80.5

Table No. I.121 Class Interval and Respective Scores for Quantitative Traits of *Michelia Champaca* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
24-25	6	13-14	6	1.91-1.95	6	6-7	6	6-7	6
26-27	7	15-16	7	1.96-2.00	7	8-9	7	8-9	7
28-29	8	17-18	8	2.01-2.05	8	10-11	8	10-11	8
30-31	9	19-20	9	2.06-2.10	9	12-13	9	12-13	9
32-33	10	21-22	10	2.11-2.15	10	14-15	10	14-15	10

Table No. I.122 Scored data of Plus Trees of *Michelia Champaca* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
HILLA/MC/24	6	9	6	6	6	10	10	10
BARO/MC/23	10	6	10	9	9	10	10	10

Table No. I.123 Weightage Score for Each Trait of Plus Trees of *Michelia Champaca* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
HILLA/MC/24	9	18	12	1.5	1.5	15	15	10	82
BARO/MC/23	15	12	20	2.25	2.25	15	15	10	91.5

Table No. I.124 Class Interval and Respective Scores for Quantitative Traits of *Schima wallichii* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
20.8-23.0	6	9.8-11.6	6	1.49-1.68	6	9.8-10.4	6	3-4	6
23.1-25.3	7	11.7-13.5	7	1.69-1.88	7	10.5-11.1	7	5-6	7
25.4-27.6	8	13.6-15.4	8	1.89-2.08	8	11.2-11.8	8	7-8	8
27.7-29.9	9	15.5-17.3	9	2.09-2.28	9	11.9-12.5	9	9-10	9
30.0-32.2	10	17.4-19.2	10	2.29-2.48	10	12.6-13.2	10	11-12	10

Table No. I.125 Scored data of Plus Trees of *Schima wallichii in* Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BARA/SW/11	10	8	10	10	10	10	10	10
BARA/SW/12	10	6	6	9	8	10	10	10
CELKA/SW/13	6	6	8	6	8	10	10	10
CELKA/SW/14	10	10	9	10	8	10	10	10

Table No. I.126 Weightage Score for Each Trait of Plus Trees of *Schima wallichii* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BARA/SW/11	15	16	20	2.5	2.5	15	15	10	96
BARA/SW/12	15	12	12	2.25	2	15	15	10	83.25
CELKA/SW/13	9	12	16	1.5	2	15	15	10	80.5
CELKA/SW/14	15	20	18	2.5	2	15	15	10	97.5

Table No. I.127 Class Interval and Respective Scores for Quantitative Traits of *Shorea robusta* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
32-33	6	15-16	6	3.00-3.70	6	17-19	6	14-15	6
34-35	7	17-18	7	3.71-4.41	7	20-22	7	16-17	7
36-37	8	19-20	8	4.42-5.12	8	23-25	8	18-19	8
38-39	9	21-22	9	5.13-5.83	9	26-28	9	20-21	9
40-41	10	23-24	10	5.84-6.54	10	29-31	10	22-23	10

Table No. I.128 Scored data of Plus Trees of *Shorea robusta* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CELKA/SR/38	9	6	10	10	7	10	10	10
BARA/SR/44	6	9	6	6	6	10	10	10

Table No. I.129 Weightage Score for Each Trait of Plus Trees of *Shorea robusta* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CELKA/SR/38	13.5	12	20	2.5	1.75	15	15	10	89.75
BARA/SR/44	9	18	12	1.5	1.5	15	15	10	82

Table No. I.130 Class Interval and Respective Scores for Quantitative Traits of *Terminalia tomentosa* in Wildlife-II Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
27.5-28.5	6	10-13	6	1.15-1.35	6	4-6	6	5-8	6
28.6-29.6	7	14-17	7	1.36-1.56	7	7-9	7	9-12	7
29.7-30.7	8	18-21	8	1.57-1.77	8	10-12	8	13-16	8
30.8-31.8	9	22-25	9	1.78-1.98	9	13-15	9	17-20	9
31.9-32.9	10	26-29	10	1.99-2.19	10	16-18	10	21-24	10

Table No. I.131 Scored data of Plus Trees of *Terminalia tomentosa* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BHOGAL/TT/40	8	8	8	7	6	10	10	10
BHOGAL/TT/41	9	10	9	7	6	10	10	10
BHOGAL/TT/42	6	6	8	6	6	10	7	10
BHOGAL/TT/43	8	9	6	9	7	10	10	10
BARA/TT/27	7	6	8	9	6	10	10	10
BARA/TT/28	10	9	9	6	7	7	7	10
BARA/TT/29	8	7	10	7	6	10	10	10
BARA/TT/30	9	8	10	7	6	10	10	10
BARA/TT/31	10	6	6	8	7	10	7	10
BARA/TT/32	8	6	9	10	8	10	10	10
BARA/TT/33	8	6	6	8	6	10	10	10
BARA/TT/34	8	8	8	8	7	10	7	10
BARA/TT/35	9	8	10	8	7	10	10	10
BARA/TT/36	10	7	9	8	9	10	10	10
BARA/TT/37	9	8	10	7	8	10	7	10
BARA/TT/38	10	8	9	8	10	10	10	10
BARA/TT/39	10	8	10	9	6	10	10	10

Table No. I.132 Weightage Score for Each Trait of Plus Trees of *Terminalia tomentosa* in Wildlife-II Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BHOGAL/TT/40	12	16	16	1.75	1.5	15	15	10	87.25
BHOGAL/TT/41	13.5	20	18	1.75	1.5	15	15	10	94.75
BHOGAL/TT/42	9	12	16	1.5	1.5	15	10.5	10	75.5
BHOGAL/TT/43	12	18	12	2.25	1.75	15	15	10	86
BARA/TT/27	10.5	12	16	2.25	1.5	15	15	10	82.25
BARA/TT/28	15	18	18	1.5	1.75	10.5	10.5	10	85.25
BARA/TT/29	12	14	20	1.75	1.5	15	15	10	89.25
BARA/TT/30	13.5	16	20	1.75	1.5	15	15	10	92.75
BARA/TT/31	15	12	12	2	1.75	15	10.5	10	78.25
BARA/TT/32	12	12	18	2.5	2	15	15	10	86.5
BARA/TT/33	12	12	12	2	1.5	15	15	10	79.5
BARA/TT/34	12	16	16	2	1.75	15	10.5	10	83.25
BARA/TT/35	13.5	16	20	2	1.75	15	15	10	93.25
BARA/TT/36	15	14	18	2	2.25	15	15	10	91.25
BARA/TT/37	13.5	16	20	1.75	2	15	10.5	10	88.75
BARA/TT/38	15	16	18	2	2.5	15	15	10	93.5
BARA/TT/39	15	16	20	2.25	1.5	15	15	10	94.75

Table No. I.133 Class Interval and Respective Scores for Quantitative Traits of *Chukrasia tabularis* in Wildlife-III Division

Total Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	No. of Branches Intervals	Score
17.6-18.4	6	4-5	6	2.3-2.4	6	8.7-9.3	6	15-16	6
18.5-19.3	7	6-7	7	2.5-2.6	7	9.4-10.0	7	17-18	7
19.4-20.2	8	8-9	8	2.7-2.8	8	10.1-10.7	8	19-20	8
20.3-21.1	9	10-11	9	2.9-3.0	9	10.8-11.4	9	21-22	9
21.2-22.0	10	12-13	10	3.1-3.2	10	11.5-12.1	10	23-24	10

Table No. I.134 Scored data of Plus Trees of *Chukrasia tabularis* in Wildlife-III Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NKHAIR/CT/46	10	8	6	10	6	10	7	10
NKHAIR/CT/47	6	6	6	6	9	10	10	10

Table No. I.135 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis* in Wildlife-III Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NKHAIR/CT/46	15	16	12	2.5	1.5	15	10.5	10	82.5
NKHAIR/CT/47	9	12	12	1.5	2.25	15	15	10	76.75

Table No. I.136 Class Interval and Respective Scores for Quantitative Traits of *Swietenia mahagoni* in Wildlife-III Division

Height interval	Score	Clear bole height interval	Score	Girth at breast height interval	Score	Crown Width interval	Score	No of Branches	Score
16.00-17.10	6	3.80-6.60	6	1.79-1.87	6	3.80-4.00	6	3-4	6
17.20-18.30	7	6.70-9.50	7	1.88-1.96	7	4.10-4.30	7	5.-6	7
18.40-19.50	8	9.60-12.40	8	1.97-2.05	8	4.40-4.60	8	7-8	8
19.60-20.70	9	12.50-15.30	9	2.06-2.14	9	4.70-4.90	9	9-10	9
20.80-22.00	10	15.40-18.20	10	2.15-2.23	10	5.00-5.20	10	11-12	10

Table No. I.137 Scored data of Plus Trees and Candidate Plus trees of *Swietenia mahagoni* in Wildlife-III Division

Tree no	Total height(m)	Clear bole height(m)	Girth at breast Height height(m)	Crown Width(m)	No of Branches	Stem Straightness	Stem Form	Infection
SM/9	7	8	6	6	10	10	10	10
SM/10	10	10	10	6	7	10	7	10
SM/11	6	6	9	10	8	10	10	10
BDABRI/SM/1	10	6	10	6	10	10	10	10

Table No. I.138 Weightage Score for Each Trait of Plus Trees of *Swietenia mahagoni* in Wildlife-III Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SM/9	10.5	16	12	1.5	2.5	15	15	10	82.5
SM/10	15	20	20	1.5	1.75	15	10.5	10	93.75
SM/11	9	12	18	2.5	2	15	15	10	83.5
BDABRI/SM/1	15	12	20	1.5	2.5	15	15	10	91

Annexure-II

II. SILVICULTURE SOUTH DIVISION

Table II.1 Class Interval and Respective Scores for Quantitative Traits of *Bombax ceiba* in Bankura (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17-18	6	5.5-8.1	6	1.65-1.90	6	7-11	6	5-7	6
18.1-19	7	8.2-10.7	7	1.91-2.15	7	12-15	7	8-10	7
19.1-20	8	10.8-13.3	8	2.16-2.40	8	16-19	8	11-13	8
20.1-21	9	13.4-15.9	9	2.41-2.65	9	20-23	9	14-16	9
21.1-22	10	16.00-18.5	10	2.66-2.90	10	24-27	10	17-19	10

Table II.2 Scored data of Candidate Plus Trees of *Bombax ceiba* in Bankura (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MEJI/BC/1	9	7	8	7	8	10	7	10
MEJI/BC/2	9	8	8	7	7	10	7	10
MEJI/BC/3	9	9	8	8	7	10	10	10
MEJI/BC/4	10	10	8	7	6	7	10	10
MEJI/BC/5	10	10	10	7	7	10	7	10
MEJI/BC/6	10	8	10	8	7	10	7	10
MEJI/BC/7	8	6	10	6	6	10	10	10
MEJI/BC/8	10	8	10	7	7	10	10	10
MEJI/BC/9	10	8	10	10	8	10	10	10
MEJI/BC/10	8	9	10	7	7	10	7	10
MEJI/BC/12	9	14	10	7	6	10	7	10
MEJI/BC/13	9	14	10	7	6	10	10	10

Table II.3 Weightage Score for Each Trait of Candidate Plus Trees of *Bombax ceiba* in Bankura (North) Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MEJI/BC/1	13.5	14	16	1.75	2	15	10.5	10	82.75
MEJI/BC/2	13.5	16	16	1.75	1.75	15	10.5	10	84.5
MEJI/BC/3	13.5	18	16	2	1.75	15	15	10	91.25
MEJI/BC/4	15	20	16	1.75	1.5	10.5	15	10	89.75
MEJI/BC/5	15	20	20	1.75	1.75	15	10.5	10	94
MEJI/BC/6	15	16	20	2	1.75	15	10.5	10	90.25
MEJI/BC/7	12	12	20	1.5	1.5	15	15	10	87
MEJI/BC/8	15	16	20	1.75	1.75	15	15	10	94.5
MEJI/BC/9	15	16	20	2.5	2	15	15	10	95.5
MEJI/BC/10	12	18	20	1.75	1.75	15	10.5	10	89
MEJI/BC/12	13.5	28	20	1.75	1.5	15	10.5	10	100.25
MEJI/BC/13	13.5	28	20	1.75	1.5	15	15	10	104.75

Table II.4 Class Interval and Respective Scores for Quantitative Traits for *Eucalyptus camaldulensis* in Bankura (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18-19.1	6	9-10.2	6	116-131	6	8-9	6	7-8.3	6
19.2-20.2	7	10.3-11.4	7	132-146	7	10-11	7	8.4-9.6	7
20.3-21.3	8	11.5-12.6	8	147-161	8	12-13	8	9.7-10.9	8
21.4-22.4	9	12.7-13.8	9	162-176	9	14-15	9	11-12.2	9
22.5-23.5	10	13.9-15	10	177-191	10	16-17	10	12.3-14.3	10

Table II.5 Scored data of Plus Trees of *Eucalyptus camaldulensis* in Bankura (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DHRM/EC/36	9	8	9	7	9	10	10	10
DHRM/EC/45	9	6	10	10	10	10	7	10
DHRM/EC/30	6	9	6	6	6	10	10	10
DHRM/EC/15	10	6	10	6	6	10	7	10
DHRM/EC/47	8	10	9	6	6	10	7	10

Table II.6 Weightage Score for Each Trait of Plus Trees of *Eucalyptus camaldulensis* in Bankura (North) Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DHRM/EC/36	13.5	16	18	1.75	2.25	15	15	10	91.5
DHRM/EC/45	13.5	12	20	2.5	2.5	15	10.5	10	86
DHRM/EC/30	9	18	12	1.5	1.5	15	15	10	82
DHRM/EC/15	15	12	20	1.5	1.5	15	10.5	10	85.5
DHRM/EC/47	12	20	18	1.5	1.5	15	10.5	10	88.5

Table II.7 Class Interval and Respective Scores for Quantitative Traits for *Eucalyptus citriodora* in Bankura (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16-17.4	6	5-7.6	6	0.90-1.08	6	7-10.6	6	3-5	6
17.5-18.8	7	7.7-10.2	7	1.09-1.26	7	10.7-14.2	7	6-7	7
18.9-19.2	8	10.3-12.8	8	1.27-1.44	8	14.3-17.8	8	8-9	8
19.3-20.6	9	12.9-15.4	9	1.45-1.62	9	17.9-21.4	9	10-11	9
20.7-22	10	15.5-18	10	1.63-1.80	10	21.5-25	10	12-13	10

Table II.8 Scored data of Plus Trees of *Eucalyptus citriodora* in Bankura (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DHRM/EC/59	7	7	9	8	7	7	7	10
DHRM/EC/61	10	8	9	9	10	10	7	10
DHRM/EC/153	10	6	10	10	8	10	7	10
DHRM/EC/185	10	8	9	10	7	10	7	10
DHRM/EC/92	10	8	9	6	7	10	7	10
BAHR/EC/28	6	7	6	6	7	7	10	10
BAHR/EC/58	9	10	6	6	6	10	10	10
BAHR/EC/111	10	10	6	6	7	10	10	10
BAHR/EC/114	9	8	6	7	6	10	10	10
BAHR/EC/155	10	10	6	6	6	10	10	10

Table II.9 Weightage Score for Each Trait of Plus Trees of *Eucalyptus citriodora* in Bankura (North) Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DHRM/EC/59	10.5	14	18	2	1.75	10.5	10.5	10	77.25
DHRM/EC/61	15	16	18	2.25	2.5	15	10.5	10	89.25
DHRM/EC/153	15	12	20	2.5	2	15	10.5	10	87
DHRM/EC/185	15	16	18	2.5	1.75	15	10.5	10	88.75
DHRM/EC/92	15	16	18	1.5	1.75	15	10.5	10	87.75
BAHR/EC/28	9	14	12	1.5	1.75	10.5	15	10	73.75
BAHR/EC/58	13.5	20	12	1.5	1.5	15	15	10	88.5
BAHR/EC/111	15	20	12	1.5	1.75	15	15	10	90.25
BAHR/EC/114	13.5	16	12	1.75	1.5	15	15	10	84.75
BAHR/EC/155	15	20	12	1.5	1.5	15	15	10	90

Table II.10 Class Interval and Respective Scores for Quantitative Traits of Plus Trees& Candidate Plus Trees of *Eucalyptus hybrid* in Bankura(N) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15-19	6	8.8-11.0	6	1.19-1.27	6	6.8-7.8	6	5-6	6
20-24	7	11.1-13.3	7	1.28-1.36	7	7.9-8.9	7	7-8	7
25-29	8	13.4-15.6	8	1.37-1.45	8	9.0-10.0	8	9-10	8
30-33	9	15.7-17.9	9	1.46-1.54	9	10.1-11.1	9	11-12	9
34-26	10	18.0-20.2	10	1.55-1.63	10	11.2-12.2	10	13-14	10

Table II.11 Scored data of Plus Trees& Candidate Plus Trees of *Eucalyptus hybrid* in Bankura(N) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
EKR/EH/50	6	6	10	7	10	10	7	10
EKR/EH/45	8	8	8	10	6	10	10	10
EKR/EH/68	7	10	6	6	8	10	10	10
EKR/EH/90	10	10	6	7	9	10	10	10

Table II.12 Weightage Score for Each Trait of Plus Trees& Candidate Plus Trees of *Eucalyptus hybrid* in Bankura(N) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
EKR/EH/50	9	12	20	1.75	2.5	15	10.5	10	80.75
EKR/EH/45	12	16	16	2.5	1.5	15	15	10	88
EKR/EH/68	10.5	20	12	1.5	2	15	15	10	86
EKR/EH/90	15	20	12	1.75	2.25	15	15	10	91

Table II.13 Class Interval and Respective Scores for Quantitative Traits for *Pterocarpus marsupium* in Bankura (South) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
10.8-12.2	6	2.8-4.2	6	1.08-1.25	6	2.8-7.6	6	4-6	6
12.3-13.7	7	4.3-5.5	7	1.26-1.43	7	7.7-12.5	7	7-8	7
13.8-15.2	8	5.6-6.8	8	1.44-1.61	8	12.6-17.4	8	9-11	8
15.3-16.7	9	6.9-8.1	9	1.62-1.79	9	17.5-22.3	9	12-14	9
16.8-18.2	10	8.2-9.4	10	1.80-1.97	10	22.4-27.3	10	15-17	10

Table II.14 Scored data of Candidate Plus Trees of *Pterocarpus marsupium* in Bankura (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
HIRB/PM/1	6	6	6	9	10	10	7	10
HIRB/PM/2	6	8	7	7	8	7	10	10
HIRB/PM/3	7	7	9	10	10	10	10	10
RANI/PM/1	8	8	7	7	7	10	7	10
RANI/PM/2	8	10	10	8	8	10	10	10
RANI/PM/3	7	6	7	9	9	7	10	10
RANI/PM/4	8	10	7	7	8	10	7	10
SUTA/DM/2	10	7	6	6	6	10	10	10
SUTA/DM/3	8	7	6	6	6	10	10	10

Table II.15 Weightage Score for Each Trait of Candidate Plus Trees of *Pterocarpus marsupium* in Bankura (South) Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
HIRB/PM/1	9	12	12	2.25	2.5	15	10.5	10	73.25
HIRB/PM/2	9	16	14	1.75	2	10.5	15	10	78.25
HIRB/PM/3	10.5	14	18	2.5	2.5	15	15	10	87.5
RANI/PM/1	12	16	14	1.75	1.75	15	10.5	10	81
RANI/PM/2	12	20	20	2	2	15	15	10	96
RANI/PM/3	10.5	12	14	2.25	2.25	10.5	15	10	76.5
RANI/PM/4	12	20	14	1.75	2	15	10.5	10	85.25
SUTA/PM/2	15	14	12	1.5	1.5	15	15	10	84
SUTA/PM/3	12	14	12	1.5	1.5	15	15	10	81

Table II. 16 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica* in Bankura (South) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
9.60-12.00	6	2.60-3.40	6	0.91-1.00	6	1-4	6	5-6	6
12.10-14.50	7	3.50-4.30	7	1.01-1.10	7	5-8	7	7-8	7
14.60-17.00	8	4.40-5.20	8	1.11-1.20	8	9-12	8	9-10	8
17.10-19.50	9	5.30-6.10	9	1.21-1.30	9	13-16	9	11-12	9
19.60-22.00	10	6.20-7.00	10	1.31-1.40	10	17-20	10	13-14	10

Table II.17 Scored data of Candidate Plus Trees of *Terminalia bellirica* in Bankura (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
HIRB/TB/1	6	9	9	10	7	10	7	10
JHIL/TB/1	9	8	8	7	6	7	10	10
RANI/TB/1	6	9	10	7	8	10	10	10
RANI/TB/2	7	10	8	8	9	10	10	10
SUTA/TB/1	8	6	6	7	10	7	10	10
SUTA/TB/2	9	10	6	7	9	10	10	10
SUTA/TB/6	10	9	7	6	8	10	10	10

Table II. 18 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia bellirica* in Bankura (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
HIRB/TB/1	9	18	18	2.5	1.75	15	10.5	10	84.75
JHIL/TB/1	13.5	16	16	1.75	1.5	10.5	15	10	84.25
RANI/TB/1	9	18	20	1.75	2	15	15	10	90.75
RANI/TB/2	10.5	20	16	2	2.25	15	15	10	90.75
SUTA/TB/1	12	12	12	1.75	2.5	10.5	15	10	75.75
SUTA/TB/2	13.5	20	12	1.75	2.25	15	15	10	89.5
SUTA/TB/6	15	18	14	1.5	2	15	15	10	90.5

Table :II.19 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Birbhum Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.00-18.60	6	7.00-8.60	6	0.99-1.11	6	5.0-6.0	6	2	6
18.70-20.30	7	8.70-10.30	7	1.12-1.24	7	6.10-7.10	7	3	7
20.40-22.00	8	10.40-12.00	8	12.5-1.37	8	7.20-8.20	8	4	8
22.10-23.61	9	12.10-13.61	9	1.38-1.50	9	8.30-9.40	9	5	9
23.62-25.22	10	13.62-15.22	10	1.51-1.63	10	9.50-10.50	10	6	10

Table II.20 Scored data of Plus Trees of *Acacia auriculiformis* in Birbhum Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
GOAL/AA/1	8	6	7	6	8	10	10	10
GOAL/AA/2	6	6	6	6	10	10	10	10
GOAL/AA/3	6	7	6	7	8	10	10	10
GOAL/AA/4	6	7	6	6	8	10	10	10
GOAL/AA/5	8	6	8	6	8	10	10	10
TAJP/AA/1	10	10	10	10	8	10	10	10

Table II.21 Weightage Score for Each Trait of Plus Trees of *Acacia auriculiformis* in Birbhum Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
GOAL/AA/1	12	12	14	1.5	2	15	15	10	81.5
GOAL/AA/2	9	12	12	1.5	2.5	15	15	10	77
GOAL/AA/3	9	14	12	1.75	2	15	15	10	78.75
GOAL/AA/4	9	14	12	1.5	2	15	15	10	78.5
GOAL/AA/5	12	12	16	1.5	2	15	15	10	83.5
TAJP/AA/1	15	20	20	2.5	2	15	15	10	99.5

Table II.22 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Bardwan Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6	6.00-7.20	6	1.15-1.20	6	5.80-6.60	6	3-4	6
	7	7.21-8.41	7	1.21-1.26	7	6.70-7.50	7	5-6	7
	8	8.42-9.62	8	1.27-1.32	8	7.60-8.40	8	7-8	8
	9	9.63-10.83	9	1.33-1.38	9	8.50-9.30	9	9-10	9
22	10	10.84-12.04	10	1.39-1.44	10	9.40-10.20	10	11-12	10

TableII.23 Scored data of Plus Trees of *Acacia auriculiformis* in Bardwan Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
GOAL/AA/1	10	6	10	10	9	10	10	10
GOAL/AA/2	10	6	7	10	10	10	10	10
GOAL/AA/3	10	6	7	6	8	10	10	10
GOAL/AA/4	10	6	8	6	6	10	10	10
GOAL/AA/5	10	6	6	6	7	10	10	10
TAJP/AA/1	10	10	6	7	7	10	10	10

Table II.24 Weightage Score for Each Trait of Plus Trees of *Acacia auriculiformis* in Bardwan Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
GOAL/AA/1	15	12	20	2.5	2.25	15	15	10	91.75
GOAL/AA/2	15	12	14	2.5	2.5	15	15	10	86
GOAL/AA/3	15	12	14	1.5	2	15	15	10	84.5
GOAL/AA/4	15	12	16	1.5	1.5	15	15	10	86
GOAL/AA/5	15	12	12	1.5	1.75	15	15	10	82.25
TAJP/AA/1	15	20	12	1.75	1.75	15	15	10	90.5

Table II.25 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Jhargram Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.8-15.2	6	2.8-5.2	6	0.68-0.92	6	2.3-4.8	6	2-4	6
15.3-18.7	7	5.3-7.7	7	0.93-1.17	7	4.9-7.4	7	5-7	7
18.8-22.2	8	7.8-10.2	8	1.18-1.42	8	7.5-10.0	8	8-10	8
22.3-25.7	9	10.3-12.7	9	1.43-1.67	9	10.1-12.6	9	11-12	9
25.8-29.2	10	12.8-15.2	10	1.68-1.92	10	12.7-15.2	10	14-16	10

Table II.26 Scored data of Candidate Plus Trees of *Acacia auriculiformis* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NNG/AA/4	9	10	7	7	6	10	10	10
NNG/AA/6	9	10	7	8	7	10	7	10
NNG/AA/3	9	10	8	9	8	10	10	10
NNGR/AA/2	6	6	6	6	7	7	10	10
NNGR/AA/4	10	8	6	7	7	8	10	10
NNGR/AA/5	10	10	6	7	6	8	10	10
NNGR/AA/6	8	8	7	7	8	7	7	10
NNGR/AA/7	8	8	6	6	7	10	7	10
NNGR/AA/9	8	7	8	10	8	7	10	10
NNGR/AA/10	9	6	8	8	8	7	7	10
NNGR/AA/11	7	8	6	7	7	7	10	10
NNGR/AA/12	9	10	7	7	8	10	10	10
NNGR/AA/16	9	6	8	10	10	7	10	10
NNGR/AA/18	8	6	6	7	7	7	10	10
NNGR/AA/19	9	9	6	7	7	10	7	10
NNGR/AA/21	8	10	6	7	8	10	10	10
NNGR/AA/22	8	8	6	7	7	7	10	10

NNGR/AA/23	8	10	6	7	6	10	7	10
NNGR/AA/24	7	8	6	7	7	7	10	10
NNGR/AA/25	9	10	7	8	8	10	10	10
NNGR/AA/26	9	10	7	7	8	10	7	10
NNGR/AA/27	7	6	6	7	7	10	10	10
NNGR/AA/29	7	8	6	7	8	7	10	10
NNGR/AA/30	8	9	6	7	7	7	10	10
NNGR/AA/31	8	10	6	7	10	7	10	10
NNGR/AA/32	8	7	7	8	10	7	10	10

Table II.27 Weightage Score for Each Trait of Candidate Plus Trees of *Acacia auriculiformis* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NNG/AA/4	13.5	20	14	1.75	1.5	15	15	10	90.75
NNG/AA/6	13.5	20	14	2	1.75	15	10.5	10	86.75
NNG/AA/3	13.5	20	16	2.25	2	15	15	10	93.75
NNGR/AA/2	9	12	12	1.5	1.75	10.5	15	10	71.75
NNGR/AA/4	15	16	12	1.75	1.75	12	15	10	83.5
NNGR/AA/5	15	20	12	1.75	1.5	12	15	10	87.25
NNGR/AA/6	12	16	14	1.75	2	10.5	10.5	10	76.75
NNGR/AA/7	12	16	12	1.5	1.75	15	10.5	10	78.75
NNGR/AA/9	12	14	16	2.5	2	10.5	15	10	82
NNGR/AA/10	13.5	12	16	2	2	10.5	10.5	10	76.5
NNGR/AA/11	10.5	16	12	1.75	1.75	10.5	15	10	77.5
NNGR/AA/12	13.5	20	14	1.75	2	15	15	10	91.25
NNGR/AA/16	13.5	12	16	2.5	2.5	10.5	15	10	82
NNGR/AA/18	12	12	12	1.75	1.75	10.5	15	10	75
NNGR/AA/19	13.5	18	12	1.75	1.75	15	10.5	10	82.5
NNGR/AA/21	12	20	12	1.75	2	15	15	10	87.75
NNGR/AA/22	12	16	12	1.75	1.75	10.5	15	10	79
NNGR/AA/23	12	20	12	1.75	1.5	15	10.5	10	82.75
NNGR/AA/24	10.5	16	12	1.75	1.75	10.5	15	10	77.5
NNGR/AA/25	13.5	20	14	2	2	15	15	10	91.5
NNGR/AA/26	13.5	20	14	1.75	2	15	10.5	10	86.75
NNGR/AA/27	10.5	12	12	1.75	1.75	15	15	10	78
NNGR/AA/29	10.5	16	12	1.75	2	10.5	15	10	77.75
NNGR/AA/30	12	18	12	1.75	1.75	10.5	15	10	81
NNGR/AA/31	12	20	12	1.75	2.5	10.5	15	10	83.75
NNGR/AA/32	12	14	14	2	2.5	10.5	15	10	80

Table II.28 Class Interval and Respective Scores for Quantitative Traits *Eucalyptus hybrid* in Jhargram Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16.8-20.0	6	5-7	6	1.03-1.20	6	2.8-3.5	6	2	6
20.1-23.3	7	8-10	7	1.21-1.38	7	3.6-4.3	7	3	7
23.4-26.6	8	11-13	8	1.39-1.56	8	4.4-5.1	8	4	8
26.7-29.9	9	14-16	9	1.57-1.74	9	5.2-5.9	9	5	9
30.0-33.2	10	17-19	10	1.75-1.92	10	6.0-6.7	10	6	10

Table II.29 Scored data of Candidate Plus Trees of *Eucalyptus hybrid* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MNK/EH/1	7	8	9	10	10	10	10	10
MNK/EH/2	8	8	10	9	9	10	6	10
MNK/EH/3	10	9	9	8	7	10	10	10
MNK/EH/4	10	9	9	8	7	10	10	10
MNK/EH/5	6	7	6	10	8	10	10	10
MNK/EH/6	7	7	6	9	9	8	10	10
MNK/EH/8	9	8	9	9	7	10	10	10
MNK/EH/9	9	8	7	8	8	10	10	10
MNK/EH/10	6	7	6	7	8	8	10	10
MNK/EH/11	8	8	9	7	7	8	10	10
MNK/EH/12	10	9	10	9	8	8	10	10
MNK/EH/13	10	9	9	8	8	10	10	10
MNK/EH/15	7	7	9	8	8	8	10	10
MNK/EH/16	9	8	9	8	8	8	10	10
MNK/EH/17	7	7	9	9	9	8	10	10
MNK/EH/18	6	6	6	9	9	8	10	10
MNK/EH/19	7	7	10	8	8	8	10	10
MNK/EH/20	7	7	10	6	8	8	10	10
MNK/EH/21	6	10	8	7	8	8	10	10
MNK/EH/22	7	7	10	7	8	8	10	10
MNK/EH/23	7	7	9	6	7	8	10	10
MNK/EH/24	6	7	6	6	8	8	10	10
MNK/EH/25	7	7	6	6	7	8	10	10
MNK/EH/26	8	8	8	7	7	8	10	10
MNK/EH/27	7	8	8	7	9	8	10	10
MNK/EH/28	8	8	9	7	8	10	10	10
MNK/EH/29	6	7	7	7	8	10	10	10
MNK/EH/30	9	9	8	6	7	8	10	10
MNK/EH/31	9	9	8	6	8	8	10	10
MNK/EH/32	9	8	10	6	7	8	10	10
MNK/EH/33	6	7	8	6	7	8	10	10
MNK/EH/34	6	7	8	7	8	8	10	10

MNK/EH/35	9	9	6	6	8	8	10	10
MNK/EH/36	6	7	8	7	8	8	10	10
MNK/EH/37	6	7	8	7	8	8	10	10
MNK/EH/38	9	9	9	7	8	8	10	10
MNK/EH/40	7	7	6	9	8	10	10	10

Table II.30 Weightage Score for Each Trait of Candidate Plus Trees of *Eucalyptus hybrid* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MNK/EH/1	10.5	16	18	2.5	2.5	15	15	10	89.5
MNK/EH/2	12	16	20	2.25	2.25	15	9	10	86.5
MNK/EH/3	15	18	18	2	1.75	15	15	10	94.75
MNK/EH/4	15	18	18	2	1.75	15	15	10	94.75
MNK/EH/5	9	14	12	2.5	2	15	15	10	79.5
MNK/EH/6	10.5	14	12	2.25	2.25	12	15	10	78
MNK/EH/8	13.5	16	18	2.25	1.75	15	15	10	91.5
MNK/EH/9	13.5	16	14	2	2	15	15	10	87.5
MNK/EH/10	9	14	12	1.75	2	12	15	10	75.75
MNK/EH/11	12	16	18	1.75	1.75	12	15	10	86.5
MNK/EH/12	15	18	20	2.25	2	12	15	10	94.25
MNK/EH/13	15	18	18	2	2	15	15	10	95
MNK/EH/15	10.5	14	18	2	2	12	15	10	83.5
MNK/EH/16	13.5	16	18	2	2	12	15	10	88.5
MNK/EH/17	10.5	14	18	2.25	2.25	12	15	10	84
MNK/EH/18	9	12	12	2.25	2.25	12	15	10	74.5
MNK/EH/19	10.5	14	20	2	2	12	15	10	85.5
MNK/EH/20	10.5	14	20	1.5	2	12	15	10	85
MNK/EH/21	9	20	16	1.75	2	12	15	10	85.75
MNK/EH/22	10.5	14	20	1.75	2	12	15	10	85.25
MNK/EH/23	10.5	14	18	1.5	1.75	12	15	10	82.75
MNK/EH/24	9	14	12	1.5	2	12	15	10	75.5
MNK/EH/25	10.5	14	12	1.5	1.75	12	15	10	76.75
MNK/EH/26	12	16	16	1.75	1.75	12	15	10	84.5
MNK/EH/27	10.5	16	16	1.75	2.25	12	15	10	83.5
MNK/EH/28	12	16	18	1.75	2	15	15	10	89.75
MNK/EH/29	9	14	14	1.75	2	15	15	10	80.75
MNK/EH/30	13.5	18	16	1.5	1.75	12	15	10	87.75
MNK/EH/31	13.5	18	16	1.5	2	12	15	10	88
MNK/EH/32	13.5	16	20	1.5	1.75	12	15	10	89.75
MNK/EH/33	9	14	16	1.5	1.75	12	15	10	79.25
MNK/EH/34	9	14	16	1.75	2	12	15	10	79.75
MNK/EH/35	13.5	18	12	1.5	2	12	15	10	84
MNK/EH/36	9	14	16	1.75	2	12	15	10	79.75

MNK/EH/37	9	14	16	1.75	2	12	15	10	79.75
MNK/EH/38	13.5	18	18	1.75	2	12	15	10	90.25
MNK/EH/40	10.5	14	12	2.25	2	15	15	10	80.75

Table II.31 Class Interval and Respective Scores for Quantitative Traits *Terminalia alata* in Jhargram Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
10.8-12.2	6	3.8-5.6	6	0.63-0.73	6	4.8-7.0	6	2-6	6
12.3-13.7	7	5.7-7.5	7	0.74-0.84	7	7.1-9.3	7	7-11	7
13.8-15.2	8	7.6-9.4	8	0.85-0.95	8	9.4-11.6	8	12-16	8
15.3-16.7	9	9.5-11.3	9	0.96-1.05	9	11.7-13.9	9	17-21	9
16.8-18.2	10	11.4-13.2	10	1.06-1.16	10	14.0-16.2	10	22-26	10

Table II.32 Scored data of Plus Tree and Candidate Plus Trees of *Terminalia alata* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NNGR/TA/1	8	9	7	7	8	10	7	10
NNGR/TA/2	7	8	7	6	7	10	7	10
NNGR/TA/3	10	10	6	7	7	10	7	10
NNGR/TA/4	8	9	9	10	10	10	10	10
NNGR/TA/5	8	10	8	7	8	10	7	10
NNGR/TA/6	8	10	7	8	7	10	7	10
NNGR/TA/7	8	7	7	9	8	10	7	10
NNGR/TA/8	9	8	9	10	8	10	7	10
NNGR/TA/10	8	8	7	6	7	10	7	10
NNGR/TA/1	7	8	7	9	9	10	7	10
NNGR/TA/2	7	8	7	7	9	7	7	10
NNGR/TA/3	8	8	7	8	8	7	7	10
NNGR/TA/4	7	7	8	7	7	10	7	10
NNGR/TA/5	6	7	7	6	8	7	7	10
NNGR/TA/6	6	6	6	6	7	7	7	10
NNGR/TA/7	6	6	7	6	8	7	7	10
NNGR/TA/8	7	6	9	8	8	7	10	10
NNGR/TA/9	6	6	7	8	7	10	7	10
NNGR/TA/10	8	9	6	9	8	7	10	10
NNGR/TA/11	8	9	8	6	7	7	7	10
NNGR/TA/12	8	8	7	9	8	7	10	10
NNGR/TA/13	8	8	7	8	7	7	7	10
NNGR/TA/14	9	8	7	9	8	7	7	10
NNGR/TA/15	6	6	7	7	8	10	10	10
NNGR/TA/16	8	9	7	6	7	10	7	10

NNGR/TA/17	9	9	8	7	7	7	7	10
NNGR/TA/18	8	7	7	7	7	10	7	10
NNGR/TA/19	8	9	7	7	7	7	7	10
NNGR/TA/20	8	7	7	7	7	10	7	10
NNGR/TA/21	7	8	7	7	7	7	7	10
NNGR/TA/22	10	9	7	6	7	10	7	10
NNGR/TA/23	8	8	6	7	7	10	7	10
NNGR/TA/24	8	7	7	7	7	7	7	10
NNGR/TA/25	8	8	6	6	7	10	7	10
NNGR/TA/26	7	8	6	6	7	10	7	10
NNGR/TA/27	9	7	8	9	8	7	7	10
NNGR/TA/28	6	7	7	8	6	7	7	10
NNGR/TA/29	9	8	7	9	8	10	10	10
NNGR/TA/30	9	9	7	7	8	10	7	10
NNGR/TA/31	8	9	9	10	9	10	10	10
NNGR/TA/32	7	8	6	6	8	10	7	10
NNGR/TA/33	8	8	8	7	7	10	7	10
NNGR/TA/34	8	7	7	7	8	7	10	10
NNGR/TA/35	8	8	7	6	7	10	7	10
NNGR/TA/36	7	8	7	7	7	10	7	10
NNGR/TA/37	8	7	6	7	8	7	7	10
NNGR/TA/38	9	7	6	8	8	7	7	10
NNGR/TA/39	8	7	7	10	7	10	10	10
NNGR/TA/40	8	6	8	9	7	7	10	10
NNGR/TA/41	8	8	7	8	9	7	10	10
NNGR/TA/44	8	8	10	10	7	10	10	10
NNGR/TA/46	8	8	8	9	7	10	10	10
NNGR/TA/47	8	8	8	8	7	10	7	10
NNGR/TA/48	8	9	8	7	9	10	7	10
NNGR/TA/49	6	7	8	9	9	10	10	10
NNGR/TA/50	7	7	7	8	8	10	7	10
NNGR/TA/51	9	10	9	8	9	10	10	10
NNGR/TA/52	8	6	8	9	8	7	10	10
NNGR/TA/54	6	6	10	9	9	7	10	10
NNGR/TA/55	8	8	7	7	8	10	7	10
NNGR/TA/56	8	8	10	10	9	7	10	10
NNGR/TA/57	9	8	10	10	10	10	10	10
NNGR/TA/58	8	9	8	8	8	10	7	10
NNGR/TA/59	7	7	8	8	8	7	7	10
NNGR/TA/60	6	6	7	8	8	7	7	10
NNGR/TA/61	8	8	9	9	8	7	7	10
NNGR/TA/62	8	9	9	7	7	10	7	10
NNGR/TA/63	7	9	7	6	7	7	7	10
NNGR/TA/64	8	10	6	7	7	7	7	10

NNGR/TA/65	7	10	6	6	8	10	7	10
NNGR/TA/66	8	8	7	9	7	7	7	10
NNGR/TA/67	8	9	7	6	8	10	7	10
NNGR/TA/68	7	7	8	8	9	7	7	10
NNGR/TA/69	10	8	9	6	6	10	10	10
NNGR/TA/70	8	6	8	10	10	7	10	10
NNGR/TA/71	6	6	7	9	7	7	7	10
NNGR/TA/72	7	8	7	6	8	10	7	10
NNGR/TA/73	7	9	7	6	6	7	7	10
NNGR/TA/74	8	8	8	8	8	7	7	10
NNGR/TA/76	8	9	6	7	7	7	7	10
NNGR/TA/77	8	8	7	7	7	7	7	10
NNGR/TA/78	7	7	7	7	7	7	7	10
NNGR/TA/81	7	6	8	7	8	7	7	10
NNGR/TA/83	7	6	7	7	8	7	7	10
NNGR/TA/84	7	8	7	7	9	7	7	10
NNGR/TA/85	8	7	6	7	8	7	7	10
NNGR/TA/86	6	6	8	6	7	7	7	10
NNGR/TA/87	8	7	8	9	9	7	7	10
NNGR/TA/89	7	8	7	8	8	10	7	10
NNGR/TA/90	8	6	10	8	10	7	7	10

Table II.33 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Terminalia alata* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NNGR/TA/1	12	18	14	1.75	2	15	10.5	10	83.25
NNGR/TA/2	10.5	16	14	1.5	1.75	15	10.5	10	79.25
NNGR/TA/3	15	20	12	1.75	1.75	15	10.5	10	86
NNGR/TA/4	12	18	18	2.5	2.5	15	15	10	93
NNGR/TA/5	12	20	16	1.75	2	15	10.5	10	87.25
NNGR/TA/6	12	20	14	2	1.75	15	10.5	10	85.25
NNGR/TA/7	12	14	14	2.25	2	15	10.5	10	79.75
NNGR/TA/8	13.5	16	18	2.5	2	15	10.5	10	87.5
NNGR/TA/10	12	16	14	1.5	1.75	15	10.5	10	80.75
NNGR/TA/1	10.5	16	14	2.25	2.25	15	10.5	10	80.5
NNGR/TA/2	10.5	16	14	1.75	2.25	10.5	10.5	10	75.5
NNGR/TA/3	12	16	14	2	2	10.5	10.5	10	77
NNGR/TA/4	10.5	14	16	1.75	1.75	15	10.5	10	79.5
NNGR/TA/5	9	14	14	1.5	2	10.5	10.5	10	71.5
NNGR/TA/6	9	12	12	1.5	1.75	10.5	10.5	10	67.25
NNGR/TA/7	9	12	14	1.5	2	10.5	10.5	10	69.5
NNGR/TA/8	10.5	12	18	2	2	10.5	15	10	80

NNGR/TA/9	9	12	14	2	1.75	15	10.5	10	74.25
NNGR/TA/10	12	18	12	2.25	2	10.5	15	10	81.75
NNGR/TA/11	12	18	16	1.5	1.75	10.5	10.5	10	80.25
NNGR/TA/12	12	16	14	2.25	2	10.5	15	10	81.75
NNGR/TA/13	12	16	14	2	1.75	10.5	10.5	10	76.75
NNGR/TA/14	13.5	16	14	2.25	2	10.5	10.5	10	78.75
NNGR/TA/15	9	12	14	1.75	2	15	15	10	78.75
NNGR/TA/16	12	18	14	1.5	1.75	15	10.5	10	82.75
NNGR/TA/17	13.5	18	16	1.75	1.75	10.5	10.5	10	82
NNGR/TA/18	12	14	14	1.75	1.75	15	10.5	10	79
NNGR/TA/19	12	18	14	1.75	1.75	10.5	10.5	10	78.5
NNGR/TA/20	12	14	14	1.75	1.75	15	10.5	10	79
NNGR/TA/21	10.5	16	14	1.75	1.75	10.5	10.5	10	75
NNGR/TA/22	15	18	14	1.5	1.75	15	10.5	10	85.75
NNGR/TA/23	12	16	12	1.75	1.75	15	10.5	10	79
NNGR/TA/24	12	14	14	1.75	1.75	10.5	10.5	10	74.5
NNGR/TA/25	12	16	12	1.5	1.75	15	10.5	10	78.75
NNGR/TA/26	10.5	16	12	1.5	1.75	15	10.5	10	77.25
NNGR/TA/27	13.5	14	16	2.25	2	10.5	10.5	10	78.75
NNGR/TA/28	9	14	14	2	1.5	10.5	10.5	10	71.5
NNGR/TA/29	13.5	16	14	2.25	2	15	15	10	87.75
NNGR/TA/30	13.5	18	14	1.75	2	15	10.5	10	84.75
NNGR/TA/31	12	18	18	2.5	2.25	15	15	10	92.75
NNGR/TA/32	10.5	16	12	1.5	2	15	10.5	10	77.5
NNGR/TA/33	12	16	16	1.75	1.75	15	10.5	10	83
NNGR/TA/34	12	14	14	1.75	2	10.5	15	10	79.25
NNGR/TA/35	12	16	14	1.5	1.75	15	10.5	10	80.75
NNGR/TA/36	10.5	16	14	1.75	1.75	15	10.5	10	79.5
NNGR/TA/37	12	14	12	1.75	2	10.5	10.5	10	72.75
NNGR/TA/38	13.5	14	12	2	2	10.5	10.5	10	74.5
NNGR/TA/39	12	14	14	2.5	1.75	15	15	10	84.25
NNGR/TA/40	12	12	16	2.25	1.75	10.5	15	10	79.5
NNGR/TA/41	12	16	14	2	2.25	10.5	15	10	81.75
NNGR/TA/44	12	16	20	2.5	1.75	15	15	10	92.25
NNGR/TA/46	12	16	16	2.25	1.75	15	15	10	88
NNGR/TA/47	12	16	16	2	1.75	15	10.5	10	83.25
NNGR/TA/48	12	18	16	1.75	2.25	15	10.5	10	85.5
NNGR/TA/49	9	14	16	2.25	2.25	15	15	10	83.5
NNGR/TA/50	10.5	14	14	2	2	15	10.5	10	78
NNGR/TA/51	13.5	20	18	2	2.25	15	15	10	95.75
NNGR/TA/52	12	12	16	2.25	2	10.5	15	10	79.75
NNGR/TA/54	9	12	20	2.25	2.25	10.5	15	10	81
NNGR/TA/55	12	16	14	1.75	2	15	10.5	10	81.25
NNGR/TA/56	12	16	20	2.5	2.25	10.5	15	10	88.25

NNGR/TA/57	13.5	16	20	2.5	2.5	15	15	10	94.5
NNGR/TA/58	12	18	16	2	2	15	10.5	10	85.5
NNGR/TA/59	10.5	14	16	2	2	10.5	10.5	10	75.5
NNGR/TA/60	9	12	14	2	2	10.5	10.5	10	70
NNGR/TA/61	12	16	18	2.25	2	10.5	10.5	10	81.25
NNGR/TA/62	12	18	18	1.75	1.75	15	10.5	10	87
NNGR/TA/63	10.5	18	14	1.5	1.75	10.5	10.5	10	76.75
NNGR/TA/64	12	20	12	1.75	1.75	10.5	10.5	10	78.5
NNGR/TA/65	10.5	20	12	1.5	2	15	10.5	10	81.5
NNGR/TA/66	12	16	14	2.25	1.75	10.5	10.5	10	77
NNGR/TA/67	12	18	14	1.5	2	15	10.5	10	83
NNGR/TA/68	10.5	14	16	2	2.25	10.5	10.5	10	75.75
NNGR/TA/69	15	16	18	1.5	1.5	15	15	10	92
NNGR/TA/70	12	12	16	2.5	2.5	10.5	15	10	80.5
NNGR/TA/71	9	12	14	2.25	1.75	10.5	10.5	10	70
NNGR/TA/72	10.5	16	14	1.5	2	15	10.5	10	79.5
NNGR/TA/73	10.5	18	14	1.5	1.5	10.5	10.5	10	76.5
NNGR/TA/74	12	16	16	2	2	10.5	10.5	10	79
NNGR/TA/76	12	18	12	1.75	1.75	10.5	10.5	10	76.5
NNGR/TA/77	12	16	14	1.75	1.75	10.5	10.5	10	76.5
NNGR/TA/78	10.5	14	14	1.75	1.75	10.5	10.5	10	73
NNGR/TA/81	10.5	12	16	1.75	2	10.5	10.5	10	73.25
NNGR/TA/83	10.5	12	14	1.75	2	10.5	10.5	10	71.25
NNGR/TA/84	10.5	16	14	1.75	2.25	10.5	10.5	10	75.5
NNGR/TA/85	12	14	12	1.75	2	10.5	10.5	10	72.75
NNGR/TA/86	9	12	16	1.5	1.75	10.5	10.5	10	71.25
NNGR/TA/87	12	14	16	2.25	2.25	10.5	10.5	10	77.5
NNGR/TA/89	10.5	16	14	2	2	15	10.5	10	80
NNGR/TA/90	12	12	20	2	2.5	10.5	10.5	10	79.5

Table II.34 Class Interval and Respective Scores for Quantitative Traits for *Terminalia arjuna* in Jhargram Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score	Bark Thickness	Score
14-14.8	6	3-4.8	6	0.72-0.79	6	5-6.8	6	11-12.6	6	4.8-7.4	6
14.9-15.6	7	4.9-6.6	7	0.80-0.86	7	6.9-8.6	7	12.7-14.2	7	7.5-10.1	7
15.7-16.4	8	6.7-8.4	8	0.87-0.93	8	8.7-10.4	8	14.3-15.8	8	10.2-12.8	8
16.5-17.2	9	8.5-10.2	9	0.94-1.00	9	10.5-12.2	9	15.9-17.4	9	12.9-15.5	9
17.3-18	10	10.3-12	10	1.01-1.07	10	12.3-14	10	17.5-19	10	15.6-18.2	10

Table II.35 Scored data of Candidate Plus Trees of *Terminalia arjuna* in Jhargram Division

Tree No.	Total height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Bark Thickness	Stem Straightness	Stem Form	Infection
NNGR/Tar/1	10	9	9	7	8	6	10	7	10
NNGR/Tar/2	8	8	9	8	6	9	10	7	10
NNGR/Tar/3	8	7	9	7	7	8	10	7	10
NNGR/Tar/4	9	10	7	7	7	7	10	7	10
NNGR/Tar/5	8	9	9	9	9	7	10	10	10
NNGR/Tar/6	7	8	9	7	7	7	10	7	10
FTC/Tar/7	7	9	8	7	6	8	10	7	10
FTC/Tar/8	9	7	10	10	9	7	10	7	10
FTC/Tar/9	7	8	8	7	7	6	10	7	10
KKJR/Tar/10	10	10	7	7	7	7	10	7	10
KKJR/Tar/11	6	7	6	6	6	9	10	7	10
KKJR/Tar/12	7	8	10	10	10	10	10	7	10
KKJR/Tar/13	8	7	8	6	7	10	10	7	10
KKJR/Tar/14	8	7	8	6	7	8	10	7	10
KKJR/Tar/15	9	10	7	8	10	8	10	7	10
KKJR/Tar/16	9	8	9	8	9	9	10	7	10
KKJR/Tar/17	8	7	9	7	7	10	10	7	10
KKJR/Tar/18	9	10	10	7	7	7	10	7	10
KKJR/Tar/19	6	6	10	8	10	7	10	7	10
KKJR/Tar/20	6	6	9	7	7	6	10	7	10

Table II.36 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia arjuna* in Jhargram Divisions

Tree No.	Total height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Bark Thickness	Stem Form	Infection	Total
NNGR/Tar/1	15	18	18	1.75	2	15	12	10.5	10	90.25
NNGR/Tar/2	12	16	18	2	1.5	15	18	10.5	10	85
NNGR/Tar/3	12	14	18	1.75	1.75	15	16	10.5	10	83
NNGR/Tar/4	13.5	20	14	1.75	1.75	15	14	10.5	10	86.5
NNGR/Tar/5	12	18	18	2.25	2.25	15	14	15	10	92.5
NNGR/Tar/6	10.5	16	18	1.75	1.75	15	14	10.5	10	83.5
FTC/Tar/7	10.5	18	16	1.75	1.5	15	16	10.5	10	83.25
FTC/Tar/8	13.5	14	20	2.5	2.25	15	14	10.5	10	87.75
FTC/Tar/9	10.5	16	16	1.75	1.75	15	12	10.5	10	81.5
KKJR/Tar/10	15	20	14	1.75	1.75	15	14	10.5	10	88
KKJR/Tar/11	9	14	12	1.5	1.5	15	18	10.5	10	73.5
KKJR/Tar/12	10.5	16	20	2.5	2.5	15	20	10.5	10	87
KKJR/Tar/13	12	14	16	1.5	1.75	15	20	10.5	10	80.75
KKJR/Tar/14	12	14	16	1.5	1.75	15	16	10.5	10	80.75
KKJR/Tar/15	13.5	20	14	2	2.5	15	16	10.5	10	87.5
KKJR/Tar/16	13.5	16	18	2	2.25	15	18	10.5	10	87.25

KKJR/Tar/17	12	14	18	1.75	1.75	15	20	10.5	10	83
KKJR/Tar/18	13.5	20	20	1.75	1.75	15	14	10.5	10	92.5
KKJR/Tar/19	9	12	20	2	2.5	15	14	10.5	10	81
KKJR/Tar/20	9	12	18	1.75	1.75	15	12	10.5	10	78

Table II.37 Class Interval and Respective Scores for Quantitative Traits of *Dalbergia sissoo* in Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.6-12.0	6	1.1-2.0	6	0.957-1.043	6	3.6-5.0	6	6	6
12.1-12.5	7	2.1-3.0	7	1.044-1.130	7	5.1-6.5	7	7	7
12.6-13.0	8	3.1-4.0	8	1.14-1.226	8	6.6-8.0	8	8	8
13.1-13.5	9	4.1-5.0	9	1.227-1.313	9	8.1-9.5	9	9	9
13.6-14.0	10	5.1-6.0	10	1.314-1.40	10	9.6-11.0	10	10	10

Table II.38 Scored data of Candidate Plus Trees of Dalbergia sissoo in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PIRR/DS/1	10	6	10	8	6	10	7	10
PIRR/DS/2	8	6	6	8	6	10	10	10
PIRR/DS/3	6	6	6	7	8	7	10	10
PIRR/DS/4	10	8	8	10	10	8	10	10
PIRR/DS/5	10	8	7	7	6	8	10	10
PIRR/DS/6	6	10	6	6	7	6	10	10
PIRR/DS/7	6	8	6	7	10	8	10	10

TableII.39 Weightage Score for Each Trait of Candidate Plus Trees of *Dalbergia sissoo* in Kangsawati North Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PIRR/DS/1	15	12	20	2	1.5	15	10.5	10	86
PIRR/DS/2	12	12	12	2	1.5	15	15	10	79.5
PIRR/DS/3	9	12	12	1.75	2	10.5	15	10	72.25
PIRR/DS/4	15	16	16	2.5	2.5	12	15	10	89
PIRR/DS/5	15	16	14	1.75	1.5	12	15	10	85.25
PIRR/DS/6	9	20	12	1.5	1.75	9	15	10	78.25
PIRR/DS/7	9	16	12	1.75	2.5	12	15	10	78.25

Table II.40 Class Interval and Respective Scores for Quantitative Traits for *Pongamia pinnata* in Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
8.8-9.6	6	0.08-0.66	6	0.83-0.95	6	6.8-8.2	6	7-8	6
9.7-10.5	7	0.67-1.25	7	0.96-1.08	7	8.3-9.7	7	9-10	7
10.6-11.4	8	1.26-1.84	8	1.09-1.21	8	9.8-11.2	8	11-12	8
11.5-12.3	9	1.85-2.43	9	1.22-1.34	9	11.3-12.7	9	13-14	9
12.4-13.2	10	2.44-3.02	10	1.35-1.47	10	12.8-14.2	10	15-16	10

Table II.41 Scored data of Candidate Plus Trees of *Pongamia pinnata* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PIRRA/PP/1	9	9	9	9	7	10	7	10
PIRRA/PP/2	10	7	9	10	7	10	10	10
PIRRA/PP/3	6	9	8	8	7	7	10	10
PIRRA/PP/4	9	10	8	8	8	10	10	10
PIRRA/PP/5	7	10	6	6	6	10	10	10
PIRRA/PP/6	8	6	8	10	10	7	10	10
PIRRA/PP/7	7	10	7	8	6	10	7	10
PIRRA/PP/8	8	7	10	9	8	10	10	10

Table II.42 Weightage Score for Each Trait of Candidate Plus Trees of *Pongamia pinnata* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PIRRA/PP/1	13.5	18	18	2.25	1.75	15	10.5	10	89
PIRRA/PP/2	15	14	18	2.5	1.75	15	15	10	91.25
PIRRA/PP/3	9	18	16	2	1.75	10.5	15	10	82.25
PIRRA/PP/4	13.5	20	16	2	2	15	15	10	93.5
PIRRA/PP/5	10.5	20	12	1.5	1.5	15	15	10	85.5
PIRRA/PP/6	12	12	16	2.5	2.5	10.5	15	10	80.5
PIRRA/PP/7	10.5	20	14	2	1.5	15	10.5	10	83.5
PIRRA/PP/8	12	14	20	2.25	2	15	15	10	90.25

Table II.43 Class Interval and Respective Scores for Quantitative Traits for *Pterocarpus marsupium* in Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.80-13.20	6	2.30-4.60	6	0.68-0.91	6	3.80-4.60	6	2	6
13.30-14.70	7	4.70-7.00	7	0.92-1.15	7	4.70-5.50	7	3	7
14.80-16.20	8	7.10-9.40	8	1.16-1.39	8	5.60-6.40	8	4	8
16.30-17.70	9	9.50-11.80	9	1.40-1.63	9	6.50-7.30	9	5	9
17.80-19.20	10	11.90-14.20	10	1.63-1.87	10	7.40-8.20	10	6	10

Table II.44 Scored data of Candidate Plus Trees of *Pterocarpus marsupium* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DEOR/PM/1	6	7	6	6	9	10	7	10
DEOR/PM/2	6	8	10	7	8	10	10	10
DEOR/PM/3	9	6	6	8	8	7	10	10
DEOR/PM/4	6	6	6	7	6	10	10	10
DEOR/PM/5	8	8	6	8	8	10	10	10
DEOR/PM/6	7	6	6	10	10	7	10	10
DEOR/PM/7	8	7	6	6	8	10	7	10
DEOR/PM/8	8	6	7	10	8	10	10	10
DEOR/PM/9	8	6	6	10	8	10	10	10
SURU/PM/1	8	6	8	10	10	10	10	10
SURU/PM/2	10	10	8	6	10	7	10	10
SURU/PM/3	8	7	7	6	8	10	7	10
SURU/PM/4	8	7	7	7	9	10	10	10
SURU/PM/5	9	7	7	8	8	10	10	10

Table II.45 Weightage Score for Each Trait of Candidate Plus Trees of *Pterocarpus marsupium* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DEOR/PM/1	9	14	12	1.5	2.25	15	10.5	10	74.25
DEOR/PM/2	9	16	20	1.75	2	15	15	10	88.75
DEOR/PM/3	13.5	12	12	2	2	10.5	15	10	77
DEOR/PM/4	9	12	12	1.75	1.5	15	15	10	76.25
DEOR/PM/5	12	16	12	2	2	15	15	10	84
DEOR/PM/6	10.5	12	12	2.5	2.5	10.5	15	10	75
DEOR/PM/7	12	14	12	1.5	2	15	10.5	10	77
DEOR/PM/8	12	12	14	2.5	2	15	15	10	82.5
DEOR/PM/9	12	12	12	2.5	2	15	15	10	80.5
SURU/PM/1	12	12	16	2.5	2.5	15	15	10	85
SURU/PM/2	15	20	16	1.5	2.5	10.5	15	10	90.5
SURU/PM/3	12	14	14	1.5	2	15	10.5	10	79
SURU/PM/4	12	14	14	1.75	2.25	15	15	10	84
SURU/PM/5	13.5	14	14	2	2	15	15	10	85.5

Table II.46 Class Interval and Respective Scores for Quantitative Traits for *Schleichera oleosa* in Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.8-13.8	6	2.3-3.1	6	0.73-0.94	6	3.8-4.8	6	2-3	6
13.9-14.9	7	3.2-4.0	7	0.95-1.16	7	4.9-5.9	7	4-5	7
15.0-16.0	8	4.1-4.9	8	1.17-1.38	8	6.0-7.0	8	6-7	8
16.1-17.1	9	5.0-5.8	9	1.39-1.60	9	7.1-8.1	9	8-9	9
17.2-18.2	10	5.9-6.7	10	1.61-1.82	10	8.2-9.2	10	10-11	10

Table II.47 Scored data of Candidate Plus Trees of *Schleichera oleosa* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PIRRA/SO/1	8	7	10	8	8	10	7	10
PIRRA/SO/2	8	10	7	8	7	10	10	10
PIRRA/SO/3	7	6	7	10	10	7	10	10
PIRRA/SO/4	7	7	6	8	7	10	10	10
PIRRA/SO/5	6	9	6	6	6	10	10	10
PIRRA/SO/6	8	7	7	8	7	7	10	10
PIRRA/SO/7	8	7	6	8	9	10	7	10
PIRRA/SO/8	10	7	6	9	8	10	10	10
PIRRA/SO/9	9	7	7	8	8	10	10	10
PIRRA/SO/10	9	8	9	8	9	10	10	10

Table II.48 Weightage Score for Each Trait of Candidate Plus Trees of *Schleichera oleosa* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PIRRA/SO/1	12	14	20	2	2	15	10.5	10	85.5
PIRRA/SO/2	12	20	14	2	1.75	15	15	10	89.75
PIRRA/SO/3	10.5	12	14	2.5	2.5	10.5	15	10	77
PIRRA/SO/4	10.5	14	12	2	1.75	15	15	10	80.25
PIRRA/SO/5	9	18	12	1.5	1.5	15	15	10	82
PIRRA/SO/6	12	14	14	2	1.75	10.5	15	10	79.25
PIRRA/SO/7	12	14	12	2	2.25	15	10.5	10	77.75
PIRRA/SO/8	15	14	12	2.25	2	15	15	10	85.25
PIRRA/SO/9	13.5	14	14	2	2	15	15	10	85.5
PIRRA/SO/10	13.5	16	18	2	2.25	15	15	10	91.75

Table II.49 Class Interval and Respective Scores for Quantitative Traits for *Shorea robusta in* Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.8-14.4	6	6.8-9.0	6	0.58-0.82	6	2.8-3.8	6	1	6
14.5-16.1	7	9.1-11.3	7	0.83-1.07	7	3.9-4.9	7	2	7
16.2-17.8	8	11.4-13.6	8	1.08-1.32	8	5.0-6.0	8	3	8
17.9-19.5	9	13.7-15.9	9	1.33-1.57	9	6.01-7.1	9	4	9
19.6-21.1	10	16.0-18.2	10	1.58-1.82	10	7.2-8.2	10	5	10

Table II.50 Scored data of Candidate Plus Trees of *Shorea robusta* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DEOR/SR/1	6	7	7	7	8	10	7	10
DEOR/SR/2	9	9	6	8	8	10	10	10
DEOR/SR/3	7	9	6	7	9	7	10	10
DEOR/SR/4	8	8	6	7	7	10	10	10
DEOR/SR/5	9	9	7	8	9	10	10	10
DEOR/SR/6	9	9	7	8	9	7	10	10
DEOR/SR/7	10	10	7	8	8	10	7	10
DEOR/SR/8	8	6	7	8	9	10	10	10
DEOR/SR/9	8	7	6	7	9	10	10	10
DEOR/SR/10	7	8	10	9	8	10	10	10
DEOR/SR/11	9	9	10	8	9	10	7	10
DEOR/SR/12	8	9	10	8	9	10	10	10
DEOR/SR/13	7	8	6	7	6	7	10	10
DEOR/SR/15	7	8	6	8	9	10	10	10
DEOR/SR/16	9	10	7	8	9	7	10	10
DEOR/SR/17	10	10	6	7	9	10	7	10
DEOR/SR/18	10	10	6	6	10	10	10	10
DEOR/SR/19	10	10	7	10	9	10	10	10

Table II.51 Weightage Score for Each Trait of Candidate Plus Trees of *Shorea robusta* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DEOR/SR/1	9	14	14	1.75	2	15	10.5	10	76.25
DEOR/SR/2	13.5	18	12	2	2	15	15	10	87.5
DEOR/SR/3	10.5	18	12	1.75	2.25	10.5	15	10	80
DEOR/SR/4	12	16	12	1.75	1.75	15	15	10	83.5
DEOR/SR/5	13.5	18	14	2	2.25	15	15	10	89.75
DEOR/SR/6	13.5	18	14	2	2.25	10.5	15	10	85.25
DEOR/SR/7	15	20	14	2	2	15	10.5	10	88.5
DEOR/SR/8	12	12	14	2	2.25	15	15	10	82.25
DEOR/SR/9	12	14	12	1.75	2.25	15	15	10	82
DEOR/SR/10	10.5	16	20	2.25	2	15	15	10	90.75

DEOR/SR/11	13.5	18	20	2	2.25	15	10.5	10	91.25
DEOR/SR/12	12	18	20	2	2.25	15	15	10	94.25
DEOR/SR/13	10.5	16	12	1.75	1.5	10.5	15	10	77.25
DEOR/SR/15	10.5	16	12	2	2.25	15	15	10	82.75
DEOR/SR/16	13.5	20	14	2	2.25	10.5	15	10	87.25
DEOR/SR/17	15	20	12	1.75	2.25	15	10.5	10	86.5
DEOR/SR/18	15	20	12	1.5	2.5	15	15	10	91
DEOR/SR/19	15	20	14	2.5	2.25	15	15	10	93.75

Table II.52 Class Interval and Respective Scores for Quantitative Traits for *Terminalia bellirica* in Kangsawati (North) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
8.8 – 10.6	6	3.48 – 4.78	6	0.48 – 0.56	6	3.8 – 5.0	6	1 – 3	6
10.7 – 12.5	7	4.79 – 6.09	7	0.57- 0.65	7	5.1 – 6.3	7	4 – 6	7
12.6 – 14.4	8	6.10 – 7.40	8	0.66 – 0.74	8	6.4 – 7.6	8	7 – 9	8
14.5 – 16.3	9	7.41 – 8.71	9	0.75 – 0.83	9	7.7 - 8.9	9	10 – 12	9
16.4 – 18.2	10	8.72 – 10.02	10	0.84 – 0.92	10	9.0 – 10.2	10	13 - 15	10

Table II.53 Scored data of Candidate Plus Trees of *Terminalia bellirica* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DEOR/TB/1	6	6	8	6	7	10	7	10
DEOR/TB/2	10	8	10	7	7	10	10	10
DEOR/TB/3	9	7	10	10	10	7	10	10
DEOR/TB/4	6	6	6	6	6	10	10	10
DEOR/TB/5	9	7	9	6	7	10	10	10
DEOR/TB/6	10	9	10	7	8	10	7	10
DEOR/TB/7	8	9	9	8	7	10	10	10
DEOR/TB/8	6	8	8	6	6	7	10	10
DEOR/TB/9	8	9	9	6	7	10	10	10
DEOR/TB/10	8	10	9	8	8	7	10	10
DEOR/TB/11	9	6	9	9	8	10	10	10
DEOR/TB/12	9	6	10	10	8	7	10	10
DEOR/TB/13	7	7	6	6	7	7	10	10
DEOR/TB/14	9	10	9	7	7	10	10	10
DEOR/TB/15	8	9	9	9	8	10	7	10
DEOR/TB/16	9	7	10	8	8	10	10	10

Table II.54 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia bellirica* in Kangsawati (North) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DEOR/TB/1	9	12	16	1.5	1.75	15	10.5	10	75.75
DEOR/TB/2	15	16	20	1.75	1.75	15	15	10	94.5
DEOR/TB/3	13.5	14	20	2.5	2.5	10.5	15	10	88
DEOR/TB/4	9	12	12	1.5	1.5	15	15	10	76
DEOR/TB/5	13.5	14	18	1.5	1.75	15	15	10	88.75
DEOR/TB/6	15	18	20	1.75	2	15	10.5	10	92.25
DEOR/TB/7	12	18	18	2	1.75	15	15	10	91.75
DEOR/TB/8	9	16	16	1.5	1.5	10.5	15	10	79.5
DEOR/TB/9	12	18	18	1.5	1.75	15	15	10	91.25
DEOR/TB/10	12	20	18	2	2	10.5	15	10	89.5
DEOR/TB/11	13.5	12	18	2.25	2	15	15	10	87.75
DEOR/TB/12	13.5	12	20	2.5	2	10.5	15	10	85.5
DEOR/TB/13	10.5	14	12	1.5	1.75	10.5	15	10	75.25
DEOR/TB/14	13.5	20	18	1.75	1.75	15	15	10	95
DEOR/TB/15	12	18	18	2.25	2	15	10.5	10	87.75
DEOR/TB/16	13.5	14	20	2	2	15	15	10	91.5

Table II. 55 Class Interval and Respective Scores for Quantitative Traits of *Buchanania cochinchinensis* in Kangsawati South Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
4.9-6.1	6	1.9-2.7	6	0.61-0.76	6	2.8-3.8	6	0-2	6
6.2-7.6	7	2.8-3.6	7	0.77-0.92	7	3.9-4.9	7	3-5	7
7.7-9.1	8	3.7-4.5	8	0.93-1.08	8	5.0-6.0	8	6-8	8
9.2-10.6	9	4.6-5.4	9	1.09-1.24	9	6.1-7.1	9	9-11	9
10.7-12.1	10	5.5-6.3	10	1.25-1.40	10	7.2-8.2	10	12-14	10

Table II.56 Scored data of Candidate Plus Trees of *Buchanania cochinchinensis* in Kangsawati South Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PURI/BL/1	8	7	7	8	8	8	10	10
PURI/BL/2	7	7	8	8	8	8	10	10
PURI/BL/3	8	7	10	8	6	8	10	10
PURI/BL/4	9	10	9	9	8	8	10	10
PURI/BL/5	8	7	7	8	8	8	10	10
PURI/BL/6	10	9	7	8	8	8	10	10
PURI/BL/7	9	8	7	8	8	8	10	10

PURI/BL/8	6	7	6	7	7	8	10	10
PURI/BL/9	8	7	7	7	8	8	10	10
PURI/BL/10	7	6	7	8	7	8	10	10
PURI/BL/11	8	7	9	10	9	8	10	10
PURI/BL/12	6	6	6	7	7	8	10	10
PURI/BL/13	8	7	7	9	8	8	10	10
PURI/BL/14	8	7	7	9	8	8	10	10
PURI/BL/15	8	8	8	8	8	8	10	10
PURI/BL/16	8	7	7	7	7	8	10	10
PURI/BL/17	9	9	8	10	9	8	10	10
PURI/BL/18	7	6	8	6	7	8	10	10
PURI/BL/19	8	9	6	6	7	8	10	10
PURI/BL/20	7	7	7	8	7	8	10	10
PURI/BL/21	8	7	7	8	9	8	10	10
PURI/BL/22	8	8	7	8	9	8	10	10
PURI/BL/23	8	10	8	9	7	8	10	10
PURI/BL/24	8	8	7	7	8	8	10	10
PURI/BL/25	6	7	7	7	8	8	10	10
PURI/BL/26	6	7	8	7	8	8	10	10
PURI/BL/27	7	8	8	8	7	8	10	10
PURI/BL/1	6	8	7	6	7	8	10	10
PURI/BL/2	7	7	7	7	8	8	10	10
PURI/BL/3	8	9	9	8	7	8	10	10
PURI/BL/4	8	8	9	9	9	8	10	10
PURI/BL/5	8	8	10	8	8	8	10	10
PURI/BL/6	8	8	9	9	10	8	10	10
PURI/BL/7	8	9	9	8	8	8	10	10
PURI/BL/8	8	7	8	9	8	8	10	10
PURI/BL/9	7	7	9	9	8	8	10	10
PURI/BL/10	8	9	8	8	8	8	10	10
PURI/BL/11	8	7	7	7	7	8	10	10
PURI/BL/12	6	6	7	7	7	8	10	10
PURI/BL/13	10	8	9	8	8	8	10	10
PURI/BL/14	8	8	8	9	10	8	10	10
PURI/BL/15	8	7	8	9	9	8	10	10
PURI/BL/16	9	10	9	8	8	8	10	10
PURI/BL/17	9	9	10	7	7	8	10	10
PURI/BL/18	8	7	9	7	8	8	10	10
PURI/BL/19	8	6	10	8	8	8	10	10
PURI/BL/20	7	8	6	6	8	8	10	10
PURI/BL/21	7	8	6	7	8	8	10	10
PURI/BL/22	10	10	10	10	10	8	10	10
PURI/BL/23	7	7	7	6	7	8	10	10
PURI/BL/24	7	7	8	7	8	8	10	10

PURI/BL/25	8	6	7	9	8	8	10	10
PURI/BL/26	7	6	10	8	7	8	10	10
PURI/BL/27	8	6	9	9	8	8	10	10

Table II.57 Weightage Score for Each Trait of Candidate Plus Trees of *Buchanania cochinchinensis* in Kangsawati South Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PURI/BL/1	8	3.5	7	20	24	4	5	10	81.5
PURI/BL/2	7	3.5	8	20	24	4	5	10	81.5
PURI/BL/3	8	3.5	10	20	18	4	5	10	78.5
PURI/BL/4	9	5	9	22.5	24	4	5	10	88.5
PURI/BL/5	8	3.5	7	20	24	4	5	10	81.5
PURI/BL/6	10	4.5	7	20	24	4	5	10	84.5
PURI/BL/7	9	4	7	20	24	4	5	10	83
PURI/BL/8	6	3.5	6	17.5	21	4	5	10	73
PURI/BL/9	8	3.5	7	17.5	24	4	5	10	79
PURI/BL/10	7	3	7	20	21	4	5	10	77
PURI/BL/11	8	3.5	9	25	27	4	5	10	91.5
PURI/BL/12	6	3	6	17.5	21	4	5	10	72.5
PURI/BL/13	8	3.5	7	22.5	24	4	5	10	84
PURI/BL/14	8	3.5	7	22.5	24	4	5	10	84
PURI/BL/15	8	4	8	20	24	4	5	10	83
PURI/BL/16	8	3.5	7	17.5	21	4	5	10	76
PURI/BL/17	9	4.5	8	25	27	4	5	10	92.5
PURI/BL/18	7	3	8	15	21	4	5	10	73
PURI/BL/19	8	4.5	6	15	21	4	5	10	73.5
PURI/BL/20	7	3.5	7	20	21	4	5	10	77.5
PURI/BL/21	8	3.5	7	20	27	4	5	10	84.5
PURI/BL/22	8	4	7	20	27	4	5	10	85
PURI/BL/23	8	5	8	22.5	21	4	5	10	83.5
PURI/BL/24	8	4	7	17.5	24	4	5	10	79.5
PURI/BL/25	6	3.5	7	17.5	24	4	5	10	77
PURI/BL/26	6	3.5	8	17.5	24	4	5	10	78
PURI/BL/27	7	4	8	20	21	4	5	10	79
PURI/BL/1	6	4	7	15	21	4	5	10	72
PURI/BL/2	7	3.5	7	17.5	24	4	5	10	78
PURI/BL/3	8	4.5	9	20	21	4	5	10	81.5
PURI/BL/4	8	4	9	22.5	27	4	5	10	89.5
PURI/BL/5	8	4	10	20	24	4	5	10	85
PURI/BL/6	8	4	9	22.5	30	4	5	10	92.5
PURI/BL/7	8	4.5	9	20	24	4	5	10	84.5
PURI/BL/8	8	3.5	8	22.5	24	4	5	10	85

PURI/BL/9	7	3.5	9	22.5	24	4	5	10	85
PURI/BL/10	8	4.5	8	20	24	4	5	10	83.5
PURI/BL/11	8	3.5	7	17.5	21	4	5	10	76
PURI/BL/12	6	3	7	17.5	21	4	5	10	73.5
PURI/BL/13	10	4	9	20	24	4	5	10	86
PURI/BL/14	8	4	8	22.5	30	4	5	10	91.5
PURI/BL/15	8	3.5	8	22.5	27	4	5	10	88
PURI/BL/16	9	5	9	20	24	4	5	10	86
PURI/BL/17	9	4.5	10	17.5	21	4	5	10	81
PURI/BL/18	8	3.5	9	17.5	24	4	5	10	81
PURI/BL/19	8	3	10	20	24	4	5	10	84
PURI/BL/20	7	4	6	15	24	4	5	10	75
PURI/BL/21	7	4	6	17.5	24	4	5	10	77.5
PURI/BL/22	10	5	10	25	30	4	5	10	99
PURI/BL/23	7	3.5	7	15	21	4	5	10	72.5
PURI/BL/24	7	3.5	8	17.5	24	4	5	10	79
PURI/BL/25	8	3	7	22.5	24	4	5	10	83.5
PURI/BL/26	7	3	10	20	21	4	5	10	80
PURI/BL/27	8	3	9	22.5	24	4	5	10	85.5

Table II.58 Class Interval and Respective Scores for Quantitative Traits for *Madhuca latifolia* in Kangsawati (South) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
8.8-10.4	6	1.8-2.3	6	0.88-1.10	6	4.8-7.0	6	4-5	6
10.5-12.1	7	2.4-2.9	7	1.11-1.33	7	7.1-9.3	7	6-7	7
12.2-13.8	8	3.0-3.5	8	1.34-1.56	8	9.4-11.6	8	8-9	8
13.9-15.5	9	3.6-4.1	9	1.57-1.79	9	11.7-13.9	9	10-11	9
15.6-17.2	10	4.2-4.7	10	1.80-2.02	10	14.0-16.2	10	12-13	10

Table II.59 Scored data of Candidate Plus Trees of *Madhuca latifolia* in Kangsawati (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PIRR/ML/1	9	10	6	6	7	10	7	10
PIRR/ML/2	10	10	7	6	6	7	10	10
PIRR/ML/3	9	10	7	7	7	10	10	10
PIRR/ML/4	9	8	6	6	9	10	10	10
PIRR/ML/5	10	7	6	6	10	10	10	10
PIRR/ML/6	9	8	6	6	9	7	10	10
PIRR/ML/7	10	6	10	10	10	10	10	10
PIRR/ML/8	9	9	6	7	9	10	7	10
RUPA/ML/1	6	7	10	9	10	7	10	10
RUPA/ML/2	6	6	8	9	7	10	7	10

RUPA/ML/3	6	6	8	9	7	10	10	10
RUPA/ML/4	7	8	9	10	8	7	7	10
RUPA/ML/5	7	8	9	10	9	10	7	10

Table II.60 Weightage Score for Each Trait of Candidate Plus Trees of *Madhuca latifolia* in Kangsawati (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PIRR/ML/1	13.5	20	12	1.5	1.75	15	10.5	10	84.25
PIRR/ML/2	15	20	14	1.5	1.5	10.5	15	10	87.5
PIRR/ML/3	13.5	20	14	1.75	1.75	15	15	10	91
PIRR/ML/4	13.5	16	12	1.5	2.25	15	15	10	85.25
PIRR/ML/5	15	14	12	1.5	2.5	15	15	10	85
PIRR/ML/6	13.5	16	12	1.5	2.25	10.5	15	10	80.75
PIRR/ML/7	15	12	20	2.5	2.5	15	15	10	92
PIRR/ML/8	13.5	18	12	1.75	2.25	15	10.5	10	83
RUPA/ML/1	9	14	20	2.25	2.5	10.5	15	10	83.25
RUPA/ML/2	9	12	16	2.25	1.75	15	10.5	10	76.5
RUPA/ML/3	9	12	16	2.25	1.75	15	15	10	81
RUPA/ML/4	10.5	16	18	2.5	2	10.5	10.5	10	80
RUPA/ML/5	10.5	16	18	2.5	2.25	15	10.5	10	84.75

Table II.61 Class Interval and Respective Scores for Quantitative Traits for *Tectona grandis* in Kangsawati (South) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
19.8-20.8	6	6.4-9.1	6	1.3-1.42	6	4.8-6.2	6	4-5	6
20.9-21.9	7	9.2-11.9	7	1.43-1.55	7	6.3-7.7	7	6-7	7
22.0-23.0	8	12.0-14.7	8	1.56-1.68	8	7.8-9.2	8	8-9	8
23.1-24.1	9	14.8-17.5	9	1.69-1.81	9	9.3-10.7	9	10-11	9
24.2-25.2	10	17.6-20.3	10	1.82-2.0	10	10.8-12.2	10	12-13	10

Table II.62 Scored data of Candidate Plus Trees of *Tectona grandis* in Kangsawati (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NILM/TG/1	7	9	10	9	9	10	10	10
NILM/TG/2	8	9	8	9	7	7	10	10
NILM/TG/3	8	7	8	10	7	10	10	10
NILM/TG/4	10	7	9	10	6	10	10	10
NILM/TG/5	8	8	6	9	8	10	10	10
NILM/TG/6	10	10	6	6	7	10	7	10
NILM/TG/7	9	6	6	7	8	10	10	10
NILM/TG/8	6	7	10	8	7	10	7	10
NILM/TG/9	9	10	6	10	9	10	10	10
NILM/TG/10	9	8	10	10	10	10	7	10

Table II.63 Weightage Score for Each Trait of Candidate Plus Trees of *Tectona grandis* in Kangsawati (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NILM/TG/1	10.5	18	20	2.25	2.25	15	15	10	93
NILM/TG/2	12	18	16	2.25	1.75	10.5	15	10	85.5
NILM/TG/3	12	14	16	2.5	1.75	15	15	10	86.25
NILM/TG/4	15	14	18	2.5	1.5	15	15	10	91
NILM/TG/5	12	16	12	2.25	2	15	15	10	84.25
NILM/TG/6	15	20	12	1.5	1.75	15	10.5	10	85.75
NILM/TG/7	13.5	12	12	1.75	2	15	15	10	81.25
NILM/TG/8	9	14	20	2	1.75	15	10.5	10	82.25
NILM/TG/9	13.5	20	12	2.5	2.25	15	15	10	90.25
NILM/TG/10	13.5	16	20	2.5	2.5	15	10.5	10	90

Table II.64 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica* in Kangsawati South Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
9.6-11.8	6	1.20-3.90	6	0.716-1.010	6	4.60-6.00	6	1-3	6
11.9-14.1	7	4.00-5.70	7	1.011-1.305	7	6.10-7.50	7	4-6	7
14.2-16.4	8	5.80-6.90	8	1.306-1.600	8	7.60-9.00	8	7-9	8
16.5-18.7	9	7.00-8.70	9	1.601-1.895	9	9.10-10.50	9	10-12	9
18.8-21.0	10	8.80-10.50	10	1.896-2.190	10	10.60-12.00	10	13-15	10

Table II.65 Scored data of Candidate Plus Trees of *Terminalia bellirica* in Kangsawati South Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PURI/TB/1	9	6	8	9	8	10	10	10
PURI/TB/2	8	7	7	8	7	8	10	10
PURI/TB/3	8	7	7	9	10	10	10	10
PURI/TB/4	9	9	9	10	8	10	10	10
PURI/TB/5	7	7	6	9	8	10	10	10
PURI/TB/6	8	6	8	8	7	8	8	10
PURI/TB/7	7	6	8	8	7	10	10	10
PURI/TB/8	10	10	10	8	9	10	8	10
PURI/TB/9	7	6	7	6	8	8	10	10
PURI/TB/10	7	6	6	6	7	10	8	10
PURI/TB/11	6	7	7	8	8	10	10	10
PURI/TB/12	6	8	6	6	6	8	10	10
PURI/TB/13	7	6	8	10	10	8	10	10
PURI/TB/14	7	6	6	9	8	10	10	10

PURI/TB/15	7	6	9	8	9	8	10	10
PURI/TB/16	7	7	6	6	8	10	10	10
PURI/TB/17	6	6	6	6	8	10	10	10
PURI/TB/18	7	7	6	6	7	8	10	10
PURI/TB/19	7	7	6	8	9	8	10	10
PURI/TB/20	7	7	6	8	8	8	10	10
PURI/TB/21	6	7	6	10	7	8	10	10
PURI/TB/22	7	8	6	7	6	10	10	10

Table II.66 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia bellirica* in Kangsawati South Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PURI/TB/1	13.5	12	16	2.25	2	15	15	10	85.75
PURI/TB/2	12	14	14	2	1.75	12	15	10	80.75
PURI/TB/3	12	14	14	2.25	2.5	15	15	10	84.75
PURI/TB/4	13.5	18	18	2.5	2	15	15	10	94
PURI/TB/5	10.5	14	12	2.25	2	15	15	10	80.75
PURI/TB/6	12	12	16	2	1.75	12	12	10	77.75
PURI/TB/7	10.5	12	16	2	1.75	15	15	10	82.25
PURI/TB/8	15	20	20	2	2.25	15	12	10	96.25
PURI/TB/9	10.5	12	14	1.5	2	12	15	10	77
PURI/TB/10	10.5	12	12	1.5	1.75	15	12	10	74.75
PURI/TB/11	9	14	14	2	2	15	15	10	81
PURI/TB/12	9	16	12	1.5	1.5	12	15	10	77
PURI/TB/13	10.5	12	16	2.5	2.5	12	15	10	80.5
PURI/TB/14	10.5	12	12	2.25	2	15	15	10	78.75
PURI/TB/15	10.5	12	18	2	2.25	12	15	10	81.75
PURI/TB/16	10.5	14	12	1.5	2	15	15	10	80
PURI/TB/17	9	12	12	1.5	2	15	15	10	76.5
PURI/TB/18	10.5	14	12	1.5	1.75	12	15	10	76.75
PURI/TB/19	10.5	14	12	2	2.25	12	15	10	77.75
PURI/TB/20	10.5	14	12	2	2	12	15	10	77.5
PURI/TB/21	9	14	12	2.5	1.75	12	15	10	76.25
PURI/TB/22	10.5	16	12	1.75	1.5	15	15	10	81.75

Table II.66 Class Interval and Respective Scores for Quantitative Traits of *Terminalia chebula* in Kangsawati South Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
7.10-8.80	6	2.10-3.40	6	0.876-0.970	6	6-7	6	6-7	6
8.90-10.60	7	3.50-4.80	7	0.971-1.065	7	8-9	7	8-9	7
10.70-12.40	8	4.90-6.20	8	1.066-1.160	8	10-11	8	10-11	8
12.50-14.20	9	6.30-7.60	9	1.610-1.255	9	12-13	9	12-13	9
14.30-16.00	10	7.70-9.00	10	1.256-1.350	10	14-15	10	14-15	10

Table II.68 Scored data of Candidate Plus Trees of *Terminalia chebula* in Kangsawati South Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PURI/TC/1	10	6	8	6	6	10	10	10
PURI/TC/2	9	10	7	6	6	8	10	10
PURI/TC/3	8	7	6	9	9	8	10	10
PURI/TC/4	10	7	10	10	10	10	10	10
PURI/TC/5	9	6	8	9	9	10	10	10
PURI/TC/6	8	7	10	8	7	10	10	10
PURI/TC/7	7	6	7	7	7	8	10	10
PURI/TC/8	7	6	7	7	7	10	10	10
PURI/TC/9	6	6	6	7	7	8	10	10
PURI/TC/10	6	6	6	6	7	8	10	10

TableII.69 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia chebula* in Kangsawati South Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PURI/TC/1	15	12	16	1.5	1.5	15	15	10	86
PURI/TC/2	13.5	20	14	1.5	1.5	12	15	10	87.5
PURI/TC/3	12	14	12	2.25	2.25	12	15	10	79.5
PURI/TC/4	15	14	20	2.5	2.5	15	15	10	94
PURI/TC/5	13.5	12	16	2.25	2.25	15	15	10	86
PURI/TC/6	12	14	20	2	1.75	15	15	10	89.75
PURI/TC/7	10.5	12	14	1.75	1.75	12	15	10	77
PURI/TC/8	10.5	12	14	1.75	1.75	15	15	10	80
PURI/TC/9	9	12	12	1.75	1.75	12	15	10	73.5
PURI/TC/10	9	12	12	1.5	1.75	12	15	10	73.25

Table II.70 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Midnapur South Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.8-13.4	6	3.3-5.0	6	0.66-0.87	6	4.58-6.46	6	2-3	6
13.5-15.1	7	5.1-6.8	7	0.88-1.09	7	6.47-8.35	7	4-5	7
15.2-16.8	8	6.9-8.6	8	1.10-1.31	8	8.36-10.24	8	6-7	8
16.9-18.5	9	8.7-10.4	9	1.32-1.53	9	10.25-12.13	9	8-9	9
18.6-20.2	10	10.5-12.2	10	1.54-1.75	10	12.14-14.02	10	10-11	10

Table II.71 Scored data of Candidate Plus Trees of *Acacia auriculiformis* in Midnapur South Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARAB/AA/1	9	6	10	10	10	10	7	10
ARAB/AA/2	7	8	9	6	7	10	10	10
ARAB/AA/3	6	8	9	6	7	7	7	10
ARAB/AA/5	7	9	8	7	9	10	10	10
ARAB/AA/6	9	10	7	6	8	10	10	10
ARAB/AA/7	8	6	6	8	8	10	10	10
ARAB/AA/8	7	6	8	6	8	7	7	10
ARAB/AA/12	10	7	10	8	9	10	7	10
ARAB/AA/1	6	6	10	6	8	10	7	10
ARAB/AA/2	7	6	9	6	7	10	10	10
ARAB/AA/3	7	6	9	6	7	10	10	10
ARAB/AA/4	6	7	7	6	8	10	10	10
ARAB/AA/5	6	6	6	6	7	10	10	10
ARAB/AA/6	7	7	6	6	7	10	10	10
ARAB/AA/7	7	6	6	6	7	10	10	10
ARAB/AA/8	7	7	8	6	7	8	10	10
ARAB/AA/9	6	7	7	6	7	10	10	10

Table II.72 Weightage Score for Each Trait of Candidate Plus Trees of *Acacia auriculiformis* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARAB/AA/1	13.5	12	20	2.5	2.5	15	10.5	10	86
ARAB/AA/2	10.5	16	18	1.5	1.75	15	15	10	87.75
ARAB/AA/3	9	16	18	1.5	1.75	10.5	10.5	10	77.25
ARAB/AA/5	10.5	18	16	1.75	2.25	15	15	10	88.5
ARAB/AA/6	13.5	20	14	1.5	2	15	15	10	91
ARAB/AA/7	12	12	12	2	2	15	15	10	80
ARAB/AA/8	10.5	12	16	1.5	2	10.5	10.5	10	73
ARAB/AA/12	15	14	20	2	2.25	15	10.5	10	88.75
ARAB/AA/1	9	12	20	1.5	2	15	10.5	10	80
ARAB/AA/2	10.5	12	18	1.5	1.75	15	15	10	83.75
ARAB/AA/3	10.5	12	18	1.5	1.75	15	15	10	83.75
ARAB/AA/4	9	14	14	1.5	2	15	15	10	80.5
ARAB/AA/5	9	12	12	1.5	1.75	15	15	10	76.25
ARAB/AA/6	10.5	14	12	1.5	1.75	15	15	10	79.75
ARAB/AA/7	10.5	12	12	1.5	1.75	15	15	10	77.75
ARAB/AA/8	10.5	14	16	1.5	1.75	12	15	10	80.75
ARAB/AA/9	9	14	14	1.5	1.75	15	15	10	80.25

Table II.73 Class Interval and Respective Scores for Quantitative Traits of *Alstonia scholaris* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16.8-17.4	6	3.3-4.8	6	1.43-1.54	6	6.8-9.0	6	5-7	6
17.5-18.1	7	4.9-6.4	7	1.55-1.66	7	9.1-11.3	7	8-10	7
18.2-18.8	8	6.5-8.0	8	1.67-1.78	8	11.4-13.6	8	11-13	8
18.9-19.5	9	8.1-9.6	9	1.79-1.90	9	13.7-15.9	9	14-16	9
19.6-20.02	10	9.7-11.2	10	1.91-2.02	10	16.0-18.2	10	17-19	10

Table II.74 Scored data of Candidate Plus Trees of *Alstonia scholaris* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARAB/AS/1	9	10	7	6	6	10	7	10
ARAB/AS/2	10	6	8	8	10	10	10	10
ARAB/AS/3	6	6	10	10	10	7	7	10
ARAB/AS/4	10	6	7	9	9	10	10	10
ARAB/AS/1	10	9	10	6	7	10	10	10
ARAB/AS/2	8	8	8	6	6	10	10	10
ARAB/AS/3	8	8	6	6	7	10	10	10

Table II.75 Weightage Score for Each Trait of Candidate Plus Trees of *Alstonia scholaris* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARAB/AS/1	13.5	20	14	1.5	1.5	15	10.5	10	86
ARAB/AS/2	15	12	16	2	2.5	15	15	10	87.5
ARAB/AS/3	9	12	20	2.5	2.5	10.5	10.5	10	77
ARAB/AS/4	15	12	14	2.25	2.25	15	15	10	85.5
ARAB/AS/1	15	18	20	1.5	1.75	15	15	10	96.25
ARAB/AS/2	12	16	16	1.5	1.5	15	15	10	87
ARAB/AS/3	12	16	12	1.5	1.75	15	15	10	83.25

Table II.76 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia parviflora* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.80-14.40	6	23.0-3.20	6	1.08-1.20	6	7.30-8.80	6	2-4	6
14.50-16.10	7	3.30-4.20	7	1.21-1.33	7	8.90-10.40	7	5-7	7
16.20-17.80	8	4.30-5.20	8	1.34-1.46	8	10.50-12.0	8	8-10	8
17.90-19.50	9	5.30-6.20	9	1.47-1.59	9	12.10-13.60	9	11-13	9
19.60-21.20	10	6.30-7.20	10	1.60-1.72	10	13.70-15.20	10	14-16	10

Table II.77 Scored data of Plus Tree and Candidate Plus Trees of *Lagerstroemia parviflora* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARAB/LP/1	6	6	6	6	9	10	8	10
ARAB/LP/2	8	10	7	7	10	10	10	10
ARAB/LP/3	7	6	10	8	8	8	10	10
ARAB/LP/4	10	9	10	10	9	8	10	10
ARAB/LP/5	6	8	7	7	10	10	8	10
ARAB/ LP/1	6	6	6	6	6	10	10	10
ARAB/ LP/2	6	6	7	6	6	10	10	10
ARAB/ LP/3	6	7	8	6	7	10	10	10
ARAB/ LP/1	6	8	7	7	6	10	10	10
ARAB/ LP/2	7	9	8	6	7	10	10	10

Table II.78 Weightage Score for Each Trait of Plus tree and Candidate Plus Trees of *Lagerstroemia parviflora* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARAB/LP/1	9	12	12	1.5	2.25	15	12	10	73.75
ARAB/LP/2	12	20	14	1.75	2.5	15	15	10	90.25
ARAB/LP/3	10.5	12	20	2	2	12	15	10	83.5
ARAB/LP/4	15	18	20	2.5	2.25	12	15	10	94.75
ARAB/LP/5	9	16	14	1.75	2.5	15	12	10	80.25
ARAB/ LP/1	9	12	12	1.5	1.5	15	15	10	76
ARAB/ LP/2	9	12	14	1.5	1.5	15	15	10	78
ARAB/ LP/3	9	14	16	1.5	1.75	15	15	10	82.25
ARAB/ LP/1	9	16	14	1.75	1.5	15	15	10	82.25
ARAB/ LP/2	10.5	18	16	1.5	1.75	15	15	10	87.75

Table II.79 Class Interval and Respective Scores for Quantitative Traits of *Madhuca latifolia* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
7.8-8.2	6	2.88-3.00	6	0.70-0.76	6	6.8-7.1	6	2	6
8.3-8.7	7	3.01-3.13	7	0.77-0.83	7	7.2-7.5	7	3	7
8.8-9.2	8	3.14-3.26	8	0.84-0.90	8	7.6-7.9	8	4	8
9.3-9.7	9	3.27-3.39	9	0.91-0.97	9	8.0-8.3	9	5	9
9.8-10.2	10	3.40-3.52	10	0.98-1.04	10	8.4-8.7	10	6	10

Table II.80 Scored data of Plus Trees of *Madhuca latifolia* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
GAGR/ML/1	10	10	9	6	10	10	10	10
GAGR/ML/2	6	7	6	9	10	10	10	10
GAGR/ML/3	8	6	8	9	9	10	10	10
GAGR/1	10	10	10	10	8	10	10	10

Table II.81 Weightage Score for Each Trait of Plus Trees of *Madhuca latifolia* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
GAGR/ML/1	10	5	9	15	30	5	5	10	89
GAGR/ML/2	6	3.5	6	22.5	30	5	5	10	88
GAGR/ML/3	8	3	8	22.5	27	5	5	10	88.5
GAGR/1	10	5	10	25	24	5	5	10	94

Table II.82 Class Interval and Respective Scores for Quantitative Traits of *Pterocarpus marsupium* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.60-14.20	6	2.56-3.84	6	1.385-1.537	6	6.80-8.00	6	1-3	6
14.30-15.90	7	3.85-5.13	7	1.538-1.690	7	8.10-10.2	7	4-6	7
16.00-17.60	8	5.14-6.42	8	1.691-1.843	8	10.30-11.50	8	7-9	8
17.70-19.30	9	6.43-7.71	9	1.845-1.997	9	11.60-12.80	9	10-12	9
19.40-21.00	10	7.72-9.00	10	1.998-2.15	10	12.90-14.00	10	13-15	10

Table II.83 Scored data of Plus Tree and Candidate Plus Trees and Plus Tree of *Pterocarpus marsupium* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARAB/PM/1	8	10	6	7	8	10	10	10
ARAB/PM/2	8	7	6	9	9	10	10	10
ARAB/PM/3	10	8	10	10	10	10	7	10
ARAB/PM/4	10	8	6	6	8	10	10	10
GAGR/PM/1	8	9	10	9	7	10	10	10
ARB/PM/1	6	6	6	7	7	10	10	10
ARB/PM/2	6	6	8	7	6	10	10	10

Table II.84 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees and Plus Tree of *Pterocarpus marsupium* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARAB/PM/1	12	20	12	1.75	2	15	15	10	87.75
ARAB/PM/2	12	14	12	2.25	2.25	15	15	10	82.5
ARAB/PM/3	15	16	20	2.5	2.5	15	10.5	10	91.5
ARAB/PM/4	15	16	12	1.5	2	15	15	10	86.5
GAGR/PM/1	12	18	20	2.25	1.75	15	15	10	94
ARB/PM/1	9	12	12	1.75	1.75	15	15	10	76.5
ARB/PM/2	9	12	16	1.75	1.5	15	15	10	80.25

Table II.85 Class Interval and Respective Scores for Quantitative Traits of *Terminalia arjuna* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score	Bark Thickness Interval	Score
12.8-14.8	6	3.18-5.54	6	1.03-1.19	6	6.8-9.0	6		6	1.13-1.25	6
14.9-16.9	7	4.55-5.91	7	1.20-1.36	7	9.1-11.3	7	3-4	7	1.26-1.38	7
17.0-19.0	8	5.92-7.28	8	1.37-1.53	8	11.4-13.6	8	5-6	8	1.39-1.51	8
19.1-21.1	9	7.29-8.65	9	1.54-1.70	9	13.7-15.9	9	7-8	9	1.52-1.64	9
21.2-23.2	10	8.66-10.02	10	1.71-1.87	10	16.0-18.2	10	9-10	10	1.65-1.77	10

Table II.86 Scored data of Candidate Plus Trees of *Terminalia arjuna* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Bark Thickness	Stem Straightness	Stem Form	Infection
ARAB/TA/1	10	8	9	8	10	8	10	10	10
ARAB/TA/2	9	10	10	6	8	7	10	10	10
ARAB/TA/3	10	8	10	7	8	10	10	8	10
ARAB/TA/4	8	10	8	6	7	10	10	10	10
ARAB/TA/5	9	7	9	6	7	6	10	10	10
BURA/TA/1	6	6	8	9	8	6	8	10	10
BURA/TA/2	6	8	6	8	10	8	10	10	10
BURA/TA/3	7	6	8	10	10	10	10	10	10
BURA/TA/4	8	8	10	10	9	6	8	10	10
BURA/TA/5	7	7	7	7	9	7	10	8	10
ARAB/TA/1	7	6	7	8	8	7	10	10	10
ARAB/TA/2	7	6	6	8	8	8	10	10	10
ARAB/TA/3	7	6	10	8	8	8	10	10	10

Table II.87 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia arjuna* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Bark Thickness	Stem Straightness	Stem Form	Infection	Total Score
ARAB/TA/1	15	12	13.5	2	2.5	16	10	10	10	91.00
ARAB/TA/2	13.5	15	15	1.5	2	14	10	10	10	91.00
ARAB/TA/3	15	12	15	1.75	2	20	10	8	10	93.75
ARAB/TA/4	12	15	12	1.5	1.75	20	10	10	10	92.25
ARAB/TA/5	13.5	10.5	13.5	1.5	1.75	12	10	10	10	82.75
BURA/TA/1	9	9	12	2.25	2	12	8	10	10	74.25
BURA/TA/2	9	12	9	2	2.5	16	10	10	10	80.50
BURA/TA/3	10.5	9	12	2.5	2.5	20	10	10	10	86.50
BURA/TA/4	12	12	15	2.5	2.25	12	8	10	10	83.75
BURA/TA/5	10.5	10.5	10.5	1.75	2.25	14	10	8	10	77.50
ARAB/TA/1	10.5	9	10.5	2	2	14	10	10	10	78.00
ARAB/TA/2	10.5	9	9	2	2	16	10	10	10	78.50
ARAB/TA/3	10.5	9	15	2	2	16	10	10	10	84.50

Table II.8 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellerica* in Medinipur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
10.8-12.4	6	3.38-5.10	6	0.68-0.88	6	4.8-7.4	6	3-6	6
12.5-14.1	7	5.11-6.83	7	0.89-1.09	7	7.5-10.1	7	7-9	7
14.2-15.8	8	6.84-8.56	8	1.10-1.30	8	10.2-12.8	8	10-12	8
15.9-17.5	9	8.57-10.29	9	1.31-1.51	9	12.9-15.5	9	13-15	9
17.6-19.2	10	10.30-12.02	10	1.52-1.72	10	15.6-18.2	10	14-18	10

Table II.89 Scored data of Candidate Plus Trees of *Terminalia bellerica* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARAB/TB/1	9	6	9	10	6	**10**	**10**	**10**
ARAB/TB/1	7	6	9	7	10	10	10	10
ARAB/TB/2	6	7	6	6	6	10	10	10
ARAB/TB/3	9	8	8	6	7	10	8	10
ARAB/TB/4	10	10	8	10	9	10	10	10
ARAB/TB/5	10	6	10	10	10	8	10	10

Table II.90 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Terminalia bellerica* in Medinipur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARAB/TB/1	13.5	12	18	2.5	1.5	15	15	10	87.5
ARAB/TB/1	10.5	12	18	1.75	2.5	15	15	10	84.75
ARAB/TB/2	9	14	12	1.5	1.5	15	15	10	78
ARAB/TB/3	13.5	16	16	1.5	1.75	15	12	10	85.75
ARAB/TB/4	15	20	16	2.5	2.25	15	15	10	95.75
ARAB/TB/5	15	12	20	2.5	2.5	12	15	10	89

Table II.91 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in NMD Division after Rejection

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13-17.6	6	1.3-4.5	6	0.96-1.15	6	2.6-6.0	6	1-3	6
17.7-22.3	7	4.5-7.8	7	1.16-1.35	7	6.1-9.5	7	4-7	7
22.4-26.6	8	7.9-11.1	8	1.36-1.55	8	9.6-13.0	8	8-11	8
26.7-31.3	9	11.2-14.7	9	1.56-1.75	9	13.1-16.5	9	12-15	9
31.4-36	10	14.8-18	10	1.76-1.95	10	16.6-20	10	16-19	10

Table II.92 Scored data of Candidate Plus Trees of *Acacia auriculiformis* in NMD Division after Rejection

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHIS/AA/1	10	8	8	7	7	10	10	10
KHIS/AA/2	7	9	7	7	7	10	10	10
KHIS/AA/4	10	10	6	7	7	10	10	10
KHIS/AA/8	7	9	10	6	7	10	10	10
KHIS/AA/28	8	8	8	8	7	10	10	10
KHIS/AA/22	9	10	7	7	7	10	10	10
KHIS/AA/70	9	8	7	6	7	10	10	10
KHIS/AA/86	9	7	6	6	6	10	10	10
KHIS/AA/157	10	8	9	8	7	10	10	10
KHIS/AA/162	10	7	9	6	7	10	10	10
KHIS/AA/163	8	10	7	8	7	10	10	10
KHIS/AA/164	9	7	8	9	8	10	10	10
KHIS/AA/165	8	8	8	8	7	10	10	10
KHIS/AA/171	8	7	9	8	7	10	10	10
KHIS/AA/172	8	7	7	7	8	10	10	10
KHIS/AA/190	10	8	7	6	7	10	10	10

KHIS/AA/230	8	8	7	10	8	10	10	10
KHIS/AA/253	7	8	7	6	7	10	10	10
KHIS/AA/255	7	9	6	8	8	10	10	10
KHIS/AA/265	7	9	6	6	7	10	10	10
KHIS/AA/272	8	10	6	7	7	10	10	10
KHIS/AA/273	8	8	6	8	7	10	10	10
KHIS/AA/278	6	8	6	6	7	10	10	10
KHIS/AA/293	8	8	7	7	7	10	10	10
KHIS/AA/295	8	7	8	9	8	10	10	10
KHIS/AA/296	8	8	9	9	7	10	10	10
KHIS/AA/299	10	10	7	8	8	10	10	10
KHIS/AA/301	10	10	7	7	8	10	10	10
KHIS/AA/308	9	8	7	8	7	10	10	10
KHIS/AA/309	10	10	9	9	8	10	10	10
KHIS/AA/442	10	7	10	8	7	10	10	10
KHIS/AA/494	10	10	7	8	6	10	10	10
KHIS/AA/495	8	7	8	8	7	10	10	10
KHIS/AA/496	10	6	8	8	7	10	10	10
KHIS/AA/1	9	7	8	6	7	7	7	10
KHIS/AA/2	6	8	7	6	7	7	7	10
KHIS/AA/3	6	7	9	6	7	7	7	10
KHIS/AA/4	7	8	10	6	6	10	7	10
KHIS/AA/5	6	7	8	7	6	7	10	10
KHIS/AA/6	9	9	6	6	6	7	10	10
KHIS/AA/7	6	7	6	6	6	7	7	10
KHIS/AA/9	6	7	7	6	7	7	7	10
KHIS/AA/10	7	8	7	7	7	7	7	10
KHIS/AA/11	6	7	7	8	6	10	7	10
KHIS/AA/12	8	6	7	6	8	10	10	10
KHIS/AA/13	7	6	10	7	7	7	10	10
KHIS/AA/14	7	6	6	6	6	7	10	10
KHIS/AA/15	6	6	7	6	7	7	7	10
KHIS/AA/16	6	7	9	6	7	7	7	10
KHIS/AA/17	6	7	8	7	7	7	7	10
KHIS/AA/18	7	8	8	6	7	7	7	10
KHIS/AA/19	7	7	8	8	7	7	10	10
KHIS/AA/20	7	8	8	7	7	7	10	10
KHIS/AA/21	6	7	7	6	7	10	7	10
KHIS/AA/24	7	6	9	7	8	10	7	10
KHIS/AA/25	6	6	6	6	6	10	10	10
KHIS/AA/27	7	8	8	9	7	7	10	10
KHIS/AA/28	7	8	9	7	7	7	7	10
KHIS/AA/34	6	6	7	6	6	7	7	10
KHIS/AA/50	6	7	9	7	10	7	10	10

KHIS/AA/131	6	6	8	6	7	7	7	10
KHIS/AA/134	6	7	7	9	7	7	10	10
KHIS/AA/148	7	8	10	8	7	10	7	10

Table II.93 Weightage Score for Each Trait of Candidate Plus Trees of *Acacia auriculiformis* in NMD Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHIS/AA/1	15	16	16	1.75	1.75	15	15	10	90.5
KHIS/AA/2	10.5	18	14	1.75	1.75	15	15	10	86
KHIS/AA/4	15	20	12	1.75	1.75	15	15	10	90.5
KHIS/AA/8	10.5	18	20	1.5	1.75	15	15	10	91.75
KHIS/AA/28	12	16	16	2	1.75	15	15	10	87.75
KHIS/AA/22	13.5	20	14	1.75	1.75	15	15	10	91
KHIS/AA/70	13.5	16	14	1.5	1.75	15	15	10	86.75
KHIS/AA/86	13.5	14	12	1.5	1.5	15	15	10	82.5
KHIS/AA/157	15	16	18	2	1.75	15	15	10	92.75
KHIS/AA/162	15	14	18	1.5	1.75	15	15	10	90.25
KHIS/AA/163	12	20	14	2	1.75	15	15	10	89.75
KHIS/AA/164	13.5	14	16	2.25	2	15	15	10	87.75
KHIS/AA/165	12	16	16	2	1.75	15	15	10	87.75
KHIS/AA/171	12	14	18	2	1.75	15	15	10	87.75
KHIS/AA/172	12	14	14	1.75	2	15	15	10	83.75
KHIS/AA/190	15	16	14	1.5	1.75	15	15	10	88.25
KHIS/AA/230	12	16	14	2.5	2	15	15	10	86.5
KHIS/AA/253	10.5	16	14	1.5	1.75	15	15	10	83.75
KHIS/AA/255	10.5	18	12	2	2	15	15	10	84.5
KHIS/AA/265	10.5	18	12	1.5	1.75	15	15	10	83.75
KHIS/AA/272	12	20	12	1.75	1.75	15	15	10	87.5
KHIS/AA/273	12	16	12	2	1.75	15	15	10	83.75
KHIS/AA/278	9	16	12	1.5	1.75	15	15	10	80.25
KHIS/AA/293	12	16	14	1.75	1.75	15	15	10	85.5
KHIS/AA/295	12	14	16	2.25	2	15	15	10	86.25
KHIS/AA/296	12	16	18	2.25	1.75	15	15	10	90
KHIS/AA/299	15	20	14	2	2	15	15	10	93
KHIS/AA/301	15	20	14	1.75	2	15	15	10	92.75
KHIS/AA/308	13.5	16	14	2	1.75	15	15	10	87.25
KHIS/AA/309	15	20	18	2.25	2	15	15	10	97.25
KHIS/AA/442	15	14	20	2	1.75	15	15	10	92.75
KHIS/AA/494	15	20	14	2	1.5	15	15	10	92.5
KHIS/AA/495	12	14	16	2	1.75	15	15	10	85.75
KHIS/AA/496	15	12	16	2	1.75	15	15	10	86.75
KHIS/AA/1	13.5	14	16	1.5	1.75	10.5	10.5	10	77.75

KHIS/AA/2	9	16	14	1.5	1.75	10.5	10.5	10	73.25
KHIS/AA/3	9	14	18	1.5	1.75	10.5	10.5	10	75.25
KHIS/AA/4	10.5	16	20	1.5	1.5	15	10.5	10	85
KHIS/AA/5	9	14	16	1.75	1.5	10.5	15	10	77.75
KHIS/AA/6	13.5	18	12	1.5	1.5	10.5	15	10	82
KHIS/AA/7	9	14	12	1.5	1.5	10.5	10.5	10	69
KHIS/AA/9	9	14	14	1.5	1.75	10.5	10.5	10	71.25
KHIS/AA/10	10.5	16	14	1.75	1.75	10.5	10.5	10	75
KHIS/AA/11	9	14	14	2	1.5	15	10.5	10	76
KHIS/AA/12	12	12	14	1.5	2	15	15	10	81.5
KHIS/AA/13	10.5	12	20	1.75	1.75	10.5	15	10	81.5
KHIS/AA/14	10.5	12	12	1.5	1.5	10.5	15	10	73
KHIS/AA/15	9	12	14	1.5	1.75	10.5	10.5	10	69.25
KHIS/AA/16	9	14	18	1.5	1.75	10.5	10.5	10	75.25
KHIS/AA/17	9	14	16	1.75	1.75	10.5	10.5	10	73.5
KHIS/AA/18	10.5	16	16	1.5	1.75	10.5	10.5	10	76.75
KHIS/AA/19	10.5	14	16	2	1.75	10.5	15	10	79.75
KHIS/AA/20	10.5	16	16	1.75	1.75	10.5	15	10	81.5
KHIS/AA/21	9	14	14	1.5	1.75	15	10.5	10	75.75
KHIS/AA/24	10.5	12	18	1.75	2	15	10.5	10	79.75
KHIS/AA/25	9	12	12	1.5	1.5	15	15	10	76
KHIS/AA/27	10.5	16	16	2.25	1.75	10.5	15	10	82
KHIS/AA/28	10.5	16	18	1.75	1.75	10.5	10.5	10	79
KHIS/AA/34	9	12	14	1.5	1.5	10.5	10.5	10	69
KHIS/AA/50	9	14	18	1.75	2.5	10.5	15	10	80.75
KHIS/AA/131	9	12	16	1.5	1.75	10.5	10.5	10	71.25
KHIS/AA/134	9	14	14	2.25	1.75	10.5	15	10	76.5
KHIS/AA/148	10.5	16	20	2	1.75	15	10.5	10	85.75

Table II.94 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Panchet Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
7.40-10.40	6	0.90-4.70	6	0.56-0.74	6	2.40-4.10	6	1-2	6
10.50-13.60	7	4.80-8.60	7	0.75-0.93	7	4.20-5.90	7	3-4	7
13.70-16.80	8	8.70-12.50	8	0.94-1.12	8	6.00-7.70	8	5-6	8
16.90-20.00	9	12.60-16.40	9	1.13-1.31	9	7.80-9.50	9	7-8	9
20.10-23.20	10	16.50-20.30	10	1.32-1.50	10	9.60-11.30	10	9-10	10

Table II.95 Scored data of Plus Tree and Candidate Plus Trees of *Acacia auriculiformis* in Panchet Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BHED/AA/5	6	6	6	6	7	10	10	10
BHED/AA/6	7	7	6	6	8	10	10	10
BHED/AA/8	6	7	6	6	7	10	10	10
BHED/AA/14	6	6	6	6	7	10	10	10
BHED/AA/15	7	7	6	7	8	8	10	10
SITA/AA/2	7	7	9	9	8	8	10	10
SITA/AA/4	7	6	9	9	8	8	10	10
SITA/AA/9	8	8	9	10	7	10	10	10
SITA/AA/11	10	10	8	8	7	10	10	10
SITA/AA/14	8	7	7	7	8	10	10	10
SITA/AA/15	6	6	7	7	8	8	10	10
SITA/AA/28	10	8	6	8	8	8	10	10
SITA/AA/29	10	9	8	10	8	8	10	10
SITA/AA/40	10	9	8	8	7	8	10	10
SITA/AA/44	9	9	9	8	9	6	10	10
SITA/AA/46	9	9	7	10	8	10	10	10
SITA/AA/51	9	9	6	8	7	8	8	10
SITA/AA/52	8	8	8	8	7	8	10	10
SITA/AA/53	8	8	8	9	8	10	10	10
SITA/AA/59	10	6	7	8	8	8	10	10
SITA/AA/60	9	8	10	8	8	10	10	10
BHED/AA/1	8	7	6	6	7	8	10	10
BHED/AA/2	6	7	6	6	7	8	10	10
BHED/AA/3	6	6	7	7	9	8	10	10
BHED/AA/4	6	6	6	6	8	6	10	10
BHED/AA/7	6	7	6	6	7	18	10	10
BHED/AA/9	7	7	6	6	7	8	10	10
BHED/AA/10	6	7	6	6	8	6	10	10
BHED/AA/11	7	6	6	6	8	8	10	10
BHED/AA/12	6	7	6	6	8	8	10	10
BHED/AA/13	6	6	6	6	7	8	10	10
BHED/AA/16	7	7	6	6	8	8	10	10
SITA/AA/1	9	9	7	7	8	8	10	10
SITA/AA/3	7	6	6	7	7	8	10	10
SITA/AA/5	7	7	7	7	7	6	8	10
SITA/AA/6	7	7	7	7	7	8	10	10
SITA/AA/7	8	7	9	8	9	10	10	10
SITA/AA/8	7	7	7	7	7	8	10	10
SITA/AA/10	7	7	7	7	8	8	10	10
SITA/AA/12	8	7	10	9	9	10	10	10

SITA/AA/13	7	6	7	7	8	6	8	10
SITA/AA/15	6	6	7	7	8	8	10	10
SITA/AA/16	7	7	7	8	9	8	10	10
SITA/AA/17	6	7	6	6	7	8	10	10
SITA/AA/19	6	7	7	9	9	8	10	10
SITA/AA/20	6	6	6	7	9	8	10	10
SITA/AA/21	7	7	7	8	8	8	10	10
SITA/AA/22	6	6	6	8	10	8	10	10
SITA/AA/23	6	7	7	7	8	8	10	10
SITA/AA/25	6	6	7	7	9	8	10	10
SITA/AA/26	8	9	8	10	9	8	10	10
SITA/AA/27	10	9	7	9	9	8	10	10
SITA/AA/30	10	9	8	9	9	6	10	10
SITA/AA/31	9	7	9	10	10	8	10	10
SITA/AA/32	9	8	8	10	7	10	10	10
SITA/AA/33	9	8	8	8	7	8	10	10
SITA/AA/34	9	8	8	8	8	8	10	10
SITA/AA/35	9	8	8	9	8	8	10	10
SITA/AA/37	8	7	7	8	8	8	10	10
SITA/AA/38	9	8	8	9	8	8	10	10
SITA/AA/39	9	7	8	7	7	8	10	10
SITA/AA/41	7	7	8	6	7	8	10	10
SITA/AA/42	8	7	8	7	7	8	10	10
SITA/AA/43	8	7	7	6	7	8	10	10
SITA/AA/45	6	6	6	7	7	10	10	10
SITA/AA/47	7	7	7	9	10	8	10	10
SITA/AA/49	6	6	7	7	9	8	10	10
SITA/AA/50	6	7	7	7	8	8	10	10
SITA/AA/54	9	8	7	8	8	8	10	10
SITA/AA/55	6	7	7	8	7	10	10	10
SITA/AA/56	9	8	7	8	7	8	10	10
SITA/AA/57	10	8	7	7	8	8	10	10
SITA/AA/58	9	8	7	8	8	8	10	10

Table II.96 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Acacia auriculiformis in* Panchet Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BHED/AA/5	9	12	12	1.5	1.75	15	15	10	76.25
BHED/AA/6	10.5	14	12	1.5	2	15	15	10	80
BHED/AA/8	9	14	12	1.5	1.75	15	15	10	78.25
BHED/AA/14	9	12	12	1.5	1.75	15	15	10	76.25
BHED/AA/15	10.5	14	12	1.75	2	12	15	10	77.25
SITA/AA/2	10.5	14	18	2.25	2	12	15	10	83.75

SITA/AA/4	10.5	12	18	2.25	2	12	15	10	81.75
SITA/AA/9	12	16	18	2.5	1.75	15	15	10	90.25
SITA/AA/11	15	20	16	2	1.75	15	15	10	94.75
SITA/AA/14	12	14	14	1.75	2	15	15	10	83.75
SITA/AA/15	9	12	14	1.75	2	12	15	10	75.75
SITA/AA/28	15	16	12	2	2	12	15	10	84
SITA/AA/29	15	18	16	2.5	2	12	15	10	90.5
SITA/AA/40	15	18	16	2	1.75	12	15	10	89.75
SITA/AA/44	13.5	18	18	2	2.25	9	15	10	87.75
SITA/AA/46	13.5	18	14	2.5	2	15	15	10	90
SITA/AA/51	13.5	18	12	2	1.75	12	12	10	81.25
SITA/AA/52	12	16	16	2	1.75	12	15	10	84.75
SITA/AA/53	12	16	16	2.25	2	15	15	10	88.25
SITA/AA/59	15	12	14	2	2	12	15	10	82
SITA/AA/60	13.5	16	20	2	2	15	15	10	93.5
BHED/AA/1	12	14	12	1.5	1.75	12	15	10	78.25
BHED/AA/2	9	14	12	1.5	1.75	12	15	10	75.25
BHED/AA/3	9	12	14	1.75	2.25	12	15	10	76
BHED/AA/4	9	12	12	1.5	2	9	15	10	70.5
BHED/AA/7	9	14	12	1.5	1.75	27	15	10	90.25
BHED/AA/9	10.5	14	12	1.5	1.75	12	15	10	76.75
BHED/AA/10	9	14	12	1.5	2	9	15	10	72.5
BHED/AA/11	10.5	12	12	1.5	2	12	15	10	75
BHED/AA/12	9	14	12	1.5	2	12	15	10	75.5
BHED/AA/13	9	12	12	1.5	1.75	12	15	10	73.25
BHED/AA/16	10.5	14	12	1.5	2	12	15	10	77
SITA/AA/1	13.5	18	14	1.75	2	12	15	10	86.25
SITA/AA/3	10.5	12	12	1.75	1.75	12	15	10	75
SITA/AA/5	10.5	14	14	1.75	1.75	9	12	10	73
SITA/AA/6	10.5	14	14	1.75	1.75	12	15	10	79
SITA/AA/7	12	14	18	2	2.25	15	15	10	88.25
SITA/AA/8	10.5	14	14	1.75	1.75	12	15	10	79
SITA/AA/10	10.5	14	14	1.75	2	12	15	10	79.25
SITA/AA/12	12	14	20	2.25	2.25	15	15	10	90.5
SITA/AA/13	10.5	12	14	1.75	2	9	12	10	71.25
SITA/AA/15	9	12	14	1.75	2	12	15	10	75.75
SITA/AA/16	10.5	14	14	2	2.25	12	15	10	79.75
SITA/AA/17	9	14	12	1.5	1.75	12	15	10	75.25
SITA/AA/19	9	14	14	2.25	2.25	12	15	10	78.5
SITA/AA/20	9	12	12	1.75	2.25	12	15	10	74
SITA/AA/21	10.5	14	14	2	2	12	15	10	79.5
SITA/AA/22	9	12	12	2	2.5	12	15	10	74.5
SITA/AA/23	9	14	14	1.75	2	12	15	10	77.75
SITA/AA/25	9	12	14	1.75	2.25	12	15	10	76

SITA/AA/26	12	18	16	2.5	2.25	12	15	10	87.75
SITA/AA/27	15	18	14	2.25	2.25	12	15	10	88.5
SITA/AA/30	15	18	16	2.25	2.25	9	15	10	87.5
SITA/AA/31	13.5	14	18	2.5	2.5	12	15	10	87.5
SITA/AA/32	13.5	16	16	2.5	1.75	15	15	10	89.75
SITA/AA/33	13.5	16	16	2	1.75	12	15	10	86.25
SITA/AA/34	13.5	16	16	2	2	12	15	10	86.5
SITA/AA/35	13.5	16	16	2.25	2	12	15	10	86.75
SITA/AA/37	12	14	14	2	2	12	15	10	81
SITA/AA/38	13.5	16	16	2.25	2	12	15	10	86.75
SITA/AA/39	13.5	14	16	1.75	1.75	12	15	10	84
SITA/AA/41	10.5	14	16	1.5	1.75	12	15	10	80.75
SITA/AA/42	12	14	16	1.75	1.75	12	15	10	82.5
SITA/AA/43	12	14	14	1.5	1.75	12	15	10	80.25
SITA/AA/45	9	12	12	1.75	1.75	15	15	10	76.5
SITA/AA/47	10.5	14	14	2.25	2.5	12	15	10	80.25
SITA/AA/49	9	12	14	1.75	2.25	12	15	10	76
SITA/AA/50	9	14	14	1.75	2	12	15	10	77.75
SITA/AA/54	13.5	16	14	2	2	12	15	10	84.5
SITA/AA/55	9	14	14	2	1.75	15	15	10	80.75
SITA/AA/56	13.5	16	14	2	1.75	12	15	10	84.25
SITA/AA/57	15	16	14	1.75	2	12	15	10	85.75
SITA/AA/58	13.5	16	14	2	2	12	15	10	84.5

Table II.97 Class Interval and Respective Scores for Quantitative Traits of *Acacia auriculiformis* in Purbi Midnapur Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-19.4	6	7.8-10.4	6	1.08-1.24	6	2.78-4.82	6	2	6
19.5-21.1	7	10.5-13.1	7	1.25-1.41	7	4.83-6.87	7	3	7
21.2-22.8	8	13.2-15.8	8	1.42-1.58	8	6.88-8.92	8	4	8
22.9-24.5	9	15.9-18.5	9	1.59-1.75	9	8.93-10.97	9	5	9
24.6-26.2	10	18.6-21.2	10	1.76-1.92	10	10.98-13.02	10	6	10

Table II.98 Scored data of Candidate Plus Trees of *Acacia auriculiformis* in Purbi Midnapur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHAD/AA/1	10	10	9	10	9	10	10	10
KHAD/AA/2	8	7	7	9	10	10	10	10
KHAD/AA/3	7	6	6	8	7	10	10	10
KHAD/AA/4	9	8	8	7	8	10	10	10
KHAD/AA/5	6	6	6	6	8	10	10	10
KHAD/AA/6	6	6	10	6	10	8	10	10

KHAD/AA/7	7	6	9	9	10	10	10	10
KHAD/AA/9	7	7	7	8	10	10	8	10
KHAD/AA/10	7	7	6	7	7	8	8	10
KHAD/AA/11	10	10	7	6	6	8	8	10
KHAD/AA/12	8	9	6	6	9	8	8	10
KHAD/AA/13	10	6	7	6	9	8	8	10
KHAD/AA/14	10	9	9	8	6	8	8	10
KHAD/AA/15	10	8	8	10	9	8	8	10

Table II.99 Weightage Score for Each Trait of Candidate Plus Trees of *Acacia auriculiformis* in Purbi Midnapur Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHAD/AA/1	15	20	18	2.5	2.25	15	15	10	97.75
KHAD/AA/2	12	14	14	2.25	2.5	15	15	10	84.75
KHAD/AA/3	10.5	12	12	2	1.75	15	15	10	78.25
KHAD/AA/4	13.5	16	16	1.75	2	15	15	10	89.25
KHAD/AA/5	9	12	12	1.5	2	15	15	10	76.5
KHAD/AA/6	9	12	20	1.5	2.5	12	15	10	82
KHAD/AA/7	10.5	12	18	2.25	2.5	15	15	10	85.25
KHAD/AA/9	10.5	14	14	2	2.5	15	12	10	80
KHAD/AA/10	10.5	14	12	1.75	1.75	12	12	10	74
KHAD/AA/11	15	20	14	1.5	1.5	12	12	10	86
KHAD/AA/12	12	18	12	1.5	2.25	12	12	10	79.75
KHAD/AA/13	15	12	14	1.5	2.25	12	12	10	78.75
KHAD/AA/14	15	18	18	2	1.5	12	12	10	88.5
KHAD/AA/15	15	16	16	2.5	2.25	12	12	10	85.75

Table II.100 Class Interval and Respective Scores for Quantitative Traits of *Azadirachta indica* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
7.60-9.88	6	1.18-2.16	6	0.83-1.22	6	1.3-5.0	6	4 – 6	6
9.89-12.17	7	2.17-3.15	7	1.23-1.62	7	5.1-8.8	7	7 – 9	7
12.18-14.46	8	3.16-4.14	8	1.63-2.02	8	8.9-12.6	8	10 – 12	8
14.47-16.75	9	4.15-5.13	9	2.03-2.42	9	12.7-16.4	9	13 - 15	9
16.76-19.04	10	5.14-6.12	10	2.43-2.82	10	16.5-20.2	10	16 - 18	10

Table II.101 Scored data of Plus Trees and Candidate Plus Trees of *Azadirachta indica* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ARGH/AI/1	8	7	9	8	7	10	6	10
ARGH/AI/2	7	7	7	8	7	10	6	10
ARGH/AI/3	7	6	8	8	6	6	6	10
ARGH/AI/4	8	8	9	7	7	10	10	10
ARGH/AI/5	7	10	8	7	7	10	10	10
ARGH/AI/6	8	6	9	7	7	10	6	10
ARGH/AI/7	6	8	8	6	6	6	6	10
ARGH/AI/8	8	8	7	6	6	6	10	10
ARGH/AI/9	6	7	9	6	6	6	10	10
ARGH/AI/10	7	6	10	7	6	10	6	10
ARGH/AI/11	6	8	7	6	6	10	10	10
ARGH/AI/12	6	6	7	6	6	10	6	10
ARGH/AI/13	7	8	6	6	7	8	10	10
ARGH/AI/14	6	6	8	6	6	10	6	10
ARGH/AI/1	10	7	8	10	10	10	10	10
ARGH/AI/2	10	10	7	8	8	10	6	10
ARGH/AI/3	9	8	7	7	8	6	6	10
ARGH/AI/4	9	10	7	8	7	10	10	10
ARGH/AI/5	10	6	7	8	7	10	6	10
ARGH/AI/6	10	7	8	10	8	10	6	10
ARGH/AI/7	9	10	7	8	6	10	10	10
ARGH/AI/8	9	10	7	8	8	10	10	10
ARGH/AI/9	8	9	6	6	6	10	10	10
ARGH/AI/10	10	9	7	9	7	10	10	10
BAGM/AI/1	10	9	8	9	10	10	10	10
BAGM/AI/2	7	6	6	7	10	8	10	10
ARGH/AI/1	7	6	7	6	6	8	10	10

Table II.102 Weightage Score for Each Trait of Plus Trees and Candidate Plus Trees of *Azadirachta indica* in Purulia Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ARGH/AI/1	12	14	18	2	1.75	15	9	10	81.75
ARGH/AI/2	10.5	14	14	2	1.75	15	9	10	76.25
ARGH/AI/3	10.5	12	16	2	1.5	9	9	10	70
ARGH/AI/4	12	16	18	1.75	1.75	15	15	10	89.5
ARGH/AI/5	10.5	20	16	1.75	1.75	15	15	10	90
ARGH/AI/6	12	12	18	1.75	1.75	15	9	10	79.5
ARGH/AI/7	9	16	16	1.5	1.5	9	9	10	72

ARGH/AI/8	12	16	14	1.5	1.5	9	15	10	79
ARGH/AI/9	9	14	18	1.5	1.5	9	15	10	78
ARGH/AI/10	10.5	12	20	1.75	1.5	15	9	10	79.75
ARGH/AI/11	9	16	14	1.5	1.5	15	15	10	82
ARGH/AI/12	9	12	14	1.5	1.5	15	9	10	72
ARGH/AI/13	10.5	16	12	1.5	1.75	12	15	10	78.75
ARGH/AI/14	9	12	16	1.5	1.5	15	9	10	74
ARGH/AI/1	15	14	16	2.5	2.5	15	15	10	90
ARGH/AI/2	15	20	14	2	2	15	9	10	87
ARGH/AI/3	13.5	16	14	1.75	2	9	9	10	75.25
ARGH/AI/4	13.5	20	14	2	1.75	15	15	10	91.25
ARGH/AI/5	15	12	14	2	1.75	15	9	10	78.75
ARGH/AI/6	15	14	16	2.5	2	15	9	10	83.5
ARGH/AI/7	13.5	20	14	2	1.5	15	15	10	91
ARGH/AI/8	13.5	20	14	2	2	15	15	10	91.5
ARGH/AI/9	12	18	12	1.5	1.5	15	15	10	85
ARGH/AI/10	15	18	14	2.25	1.75	15	15	10	91
BAGM/AI/1	15	18	16	2.25	2.5	15	15	10	93.75
BAGM/AI/2	10.5	12	12	1.75	2.5	12	15	10	75.75
ARGH/AI/1	10.5	12	14	1.5	1.5	12	15	10	76.5

Table II.103 Class Interval and Respective Scores for Quantitative Traits of *Bombax ceiba* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
10.9-13.0	6	5.90-7.40	6	1.60-1.80	6	3.80-7.20	6	8-10	6
13.1-15.2	7	7.50-9.00	7	1.81-2.01	7	7.30-10.70	7	11-13	7
15.3-17.4	8	9.10-10.60	8	2.02-2.22	8	10.80-14.20	8	14-16	8
17.5-19.6	9	10.7-12.20	9	2.23-2.43	9	14.30-17.70	9	17-19	9
19.7-21.8	10	12.30-3.80	10	2.44-2.64	10	17.80-21.2	10	20-22	10

TableII.104 Scored data of Candidate Plus Trees of *Bombax ceiba* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MATHA/BC/1	10	10	10	7	6	10	10	6
MATHA/BC/2	10	10	6	7	7	10	6	6
MATHA/BC/3	10	8	9	6	7	6	6	10
BAGM/BC/1	8	8	9	7	7	10	10	10
BAGM/BC/2	9	8	9	7	8	10	6	6
ECHA/BC/1	7	7	8	8	10	10	10	10
ECHA/BC/2	6	6	6	7	8	10	10	10

ECHA/BC/3	6	7	8	8	7	10	10	10
ECHA/BC/4	6	6	7	8	9	10	10	10
ECHA/BC/5	7	7	8	10	8	10	10	6
ECHA/BC/6	6	6	8	8	6	10	6	6

Table II.105 Weightage Score for Each Trait of Candidate Plus Trees of *Bombax ceiba* in Purulia Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MATHA/BC/1	15	20	20	1.75	1.5	15	15	6	94.25
MATHA/BC/2	15	20	12	1.75	1.75	15	9	6	80.5
MATHA/BC/3	15	16	18	1.5	1.75	9	9	10	80.25
BAGM/BC/1	12	16	18	1.75	1.75	15	15	10	89.5
BAGM/BC/2	13.5	16	18	1.75	2	15	9	6	81.25
ECHA/BC/1	10.5	14	16	2	2.5	15	15	10	85
ECHA/BC/2	9	12	12	1.75	2	15	15	10	76.75
ECHA/BC/3	9	14	16	2	1.75	15	15	10	82.75
ECHA/BC/4	9	12	14	2	2.25	15	15	10	79.25
ECHA/BC/5	10.5	14	16	2.5	2	15	15	6	81
ECHA/BC/6	9	12	16	2	1.5	15	9	6	70.5

Table II.106 Class Interval and Respective Scores for Quantitative Traits of *Buchanania cochinchinensis* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
2.1-4.0	6	0.8-2.4	6	0.41-0.48	6	1-2	6	2-5	6
4.1-6.0	7	2.5-4.1	7	0.49-0.56	7	2.1-3.1	7	6-9	7
6.1-8.0	8	4.2-5.8	8	0.57-0.64	8	3.2-4.2	8	10-13	8
8.1-10.0	9	5.9-7.5	9	0.65-0.72	9	4.3-5.3	9	14-17	9
10.1-12.0	10	7.6-9.2	10	0.73-0.80	10	5.4-6.4	10	18-21	10

TableII.107 Scored data of Candidate Plus Trees of *Buchanania cochinchinensis* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHUD/BL/1	9	8	10	6	6	6	6	10
KHUD/BL/2	9	8	9	6	7	6	6	10
KHUD/BL/3	8	7	9	7	6	10	10	6
KHUD/BL/4	6	7	7	6	6	10	8	6
KHUD/BL/5	7	6	6	6	6	6	6	10
KHUD/BL/6	9	9	9	7	7	10	10	10

KHUD/BL/7	8	6	6	6	6	10	6	6
KHUD/BL/8	6	9	7	6	6	6	6	10
KHUD/BL/9	8	9	9	6	6	6	6	10
KHUD/BL/10	8	6	7	6	6	10	10	6
KHUD/BL/11	9	9	9	6	6	10	6	6
KHUD/BL/12	10	10	9	6	6	6	6	10
KHUD/BL/13	8	7	7	7	7	10	10	10
KHUD/BL/14	9	9	7	6	7	10	6	6
KHUD/BL/15	8	7	7	6	7	6	6	10
KHUD/BL/16	9	7	9	6	6	6	6	10
KHUD/BL/17	9	9	8	7	10	10	10	6
KHUD/BL/18	8	9	6	7	7	10	6	6
KHUD/BL/19	9	9	10	7	7	6	6	10
KHUD/BL/20	7	7	9	6	8	10	10	10
KHUD/BL/21	9	9	8	7	10	10	8	6
KHUD/BL/22	8	7	7	7	6	6	6	10
KHUD/BL/23	10	10	9	8	8	6	8	10
KHUD/BL/24	10	10	10	8	8	8	6	10
NISC/BL/1	8	7	6	7	8	6	6	10
NISC/BL/2	9	7	9	6	9	10	10	6
NISC/BL/3	9	6	9	8	10	10	6	6
NISC/BL/4	7	7	7	6	8	6	6	10
NISC/BL/5	7	6	7	6	10	10	10	10
NISC/BL/6	8	7	8	6	7	10	6	6
NISC/BL/7	8	7	7	6	7	8	6	10
NISC/BL/8	7	6	8	6	8	6	8	10
NISC/BL/9	7	6	8	6	8	6	6	10
NISC/BL/10	8	6	10	7	9	8	6	10
NISC/BL/11	9	10	7	7	7	10	10	6
NISC/BL/12	8	7	8	6	7	10	6	6
NISC/BL/13	8	7	8	6	7	6	6	10
NISC/BL/14	9	6	10	7	10	10	10	10
NISC/BL/15	9	8	9	7	7	10	6	6
NISC/BL/16	8	7	8	7	7	8	8	10
NISC/BL/17	8	8	8	7	8	6	6	10
NISC/BL/18	9	6	10	8	8	10	10	6
NISC/BL/19	8	7	8	8	8	10	6	6
NISC/BL/20	8	8	8	7	7	6	6	10
NISC/BL/21	7	6	8	6	7	8	10	10
NISC/BL/22	7	6	8	6	7	8	10	10
NISC/BL/23	7	7	7	6	6	10	10	10
NISC/BL/24	9	9	7	6	7	10	10	10
NISC/BL/25	8	9	6	6	7	10	6	6
NISC/BL/26	8	9	6	6	7	6	6	10

NISC/BL/27	7	7	7	6	6	8	10	10
NISC/BL/28	8	7	9	6	7	8	10	10
NISC/BL/29	7	6	9	6	7	8	10	10
NISC/BL/30	7	7	8	6	6	8	10	10
NISC/BL/31	7	6	8	6	7	8	10	10
NISC/BL/32	7	6	9	6	6	8	10	10
NISC/BL/33	7	6	8	6	7	8	10	10
NISC/BL/34	7	6	6	6	7	8	10	10
NISC/BL/35	6	6	8	6	8	8	10	10
NISC/BL/36	6	6	9	6	8	8	10	10
KHUD/BL/25	7	7	8	7	7	8	10	10
KHUD/BL/26	7	7	10	7	8	10	10	10
KHUD/BL/27	8	8	9	7	7	10	10	10
KHUD/BL/28	8	7	9	8	8	10	10	10
KHUD/BL/29	8	7	9	7	7	10	10	10
KHUD/BL/31	8	9	9	7	7	8	10	10
KHUD/BL/32	8	8	8	7	6	10	10	10
KHUD/BL/33	8	8	9	8	7	10	10	10
KHUD/BL/34	8	8	9	8	7	8	10	10
KHUD/BL/35	8	8	8	7	7	10	10	10
KHUD/BL/36	8	8	8	7	7	10	10	10
KHUD/BL/37	8	7	10	8	8	10	10	10
KHUD/BL/38	7	7	9	10	8	8	10	10
KHUD/BL/39	7	7	8	9	7	8	10	10
KHUD/BL/40	8	7	7	7	6	10	10	10
KHUD/BL/41	7	7	9	8	7	8	10	10
KHUD/BL/42	8	9	8	8	7	10	10	10
KHUD/BL/43	8	8	7	8	8	10	10	10
KHUD/BL/44	8	8	9	7	7	8	10	10
KHUD/BL/45	8	8	7	8	7	10	10	10
KHUD/BL/46	7	7	7	7	6	10	10	10
KHUD/BL/48	8	7	9	10	8	8	10	10

TableII.108 Weightage Score for Each Trait of Candidate Plus Trees of *Buchanania cochinchinensis* in Purulia Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHUD/BL/1	9	4	10	15	18	3	3	10	72
KHUD/BL/2	9	4	9	15	21	3	3	10	74
KHUD/BL/3	8	3.5	9	17.5	18	5	5	6	72
KHUD/BL/4	6	3.5	7	15	18	5	4	6	64.5
KHUD/BL/5	7	3	6	15	18	3	3	10	65
KHUD/BL/6	9	4.5	9	17.5	21	5	5	10	81
KHUD/BL/7	8	3	6	15	18	5	3	6	64
KHUD/BL/8	6	4.5	7	15	18	3	3	10	66.5

KHUD/BL/9	8	4.5	9	15	18	3	3	10	70.5
KHUD/BL/10	8	3	7	15	18	5	5	6	67
KHUD/BL/11	9	4.5	9	15	18	5	3	6	69.5
KHUD/BL/12	10	5	9	15	18	3	3	10	73
KHUD/BL/13	8	3.5	7	17.5	21	5	5	10	77
KHUD/BL/14	9	4.5	7	15	21	5	3	6	70.5
KHUD/BL/15	8	3.5	7	15	21	3	3	10	70.5
KHUD/BL/16	9	3.5	9	15	18	3	3	10	70.5
KHUD/BL/17	9	4.5	8	17.5	30	5	5	6	85
KHUD/BL/18	8	4.5	6	17.5	21	5	3	6	71
KHUD/BL/19	9	4.5	10	17.5	21	3	3	10	78
KHUD/BL/20	7	3.5	9	15	24	5	5	10	78.5
KHUD/BL/21	9	4.5	8	17.5	30	5	4	6	84
KHUD/BL/22	8	3.5	7	17.5	18	3	3	10	70
KHUD/BL/23	10	5	9	20	24	3	4	10	85
KHUD/BL/24	10	5	10	20	24	4	3	10	86
NISC/BL/1	8	3.5	6	17.5	24	3	3	10	75
NISC/BL/2	9	3.5	9	15	27	5	5	6	79.5
NISC/BL/3	9	3	9	20	30	5	3	6	85
NISC/BL/4	7	3.5	7	15	24	3	3	10	72.5
NISC/BL/5	7	3	7	15	30	5	5	10	82
NISC/BL/6	8	3.5	8	15	21	5	3	6	69.5
NISC/BL/7	8	3.5	7	15	21	4	3	10	71.5
NISC/BL/8	7	3	8	15	24	3	4	10	74
NISC/BL/9	7	3	8	15	24	3	3	10	73
NISC/BL/10	8	3	10	17.5	27	4	3	10	82.5
NISC/BL/11	9	5	7	17.5	21	5	5	6	75.5
NISC/BL/12	8	3.5	8	15	21	5	3	6	69.5
NISC/BL/13	8	3.5	8	15	21	3	3	10	71.5
NISC/BL/14	9	3	10	17.5	30	5	5	10	89.5
NISC/BL/15	9	4	9	17.5	21	5	3	6	74.5
NISC/BL/16	8	3.5	8	17.5	21	4	4	10	76
NISC/BL/17	8	4	8	17.5	24	3	3	10	77.5
NISC/BL/18	9	3	10	20	24	5	5	6	82
NISC/BL/19	8	3.5	8	20	24	5	3	6	77.5
NISC/BL/20	8	4	8	17.5	21	3	3	10	74.5
NISC/BL/21	7	3	8	15	21	4	5	10	73
NISC/BL/22	7	3	8	15	21	4	5	10	73
NISC/BL/23	7	3.5	7	15	18	5	5	10	70.5
NISC/BL/24	9	4.5	7	15	21	5	5	10	76.5
NISC/BL/25	8	4.5	6	15	21	5	3	6	68.5
NISC/BL/26	8	4.5	6	15	21	3	3	10	70.5
NISC/BL/27	7	3.5	7	15	18	4	5	10	69.5
NISC/BL/28	8	3.5	9	15	21	4	5	10	75.5

NISC/BL/29	7	3	9	15	21	4	5	10	74
NISC/BL/30	7	3.5	8	15	18	4	5	10	70.5
NISC/BL/31	7	3	8	15	21	4	5	10	73
NISC/BL/32	7	3	9	15	18	4	5	10	71
NISC/BL/33	7	3	8	15	21	4	5	10	73
NISC/BL/34	7	3	6	15	21	4	5	10	71
NISC/BL/35	6	3	8	15	24	4	5	10	75
NISC/BL/36	6	3	9	15	24	4	5	10	76
KHUD/BL/25	7	3.5	8	17.5	21	4	5	10	76
KHUD/BL/26	7	3.5	10	17.5	24	5	5	10	82
KHUD/BL/27	8	4	9	17.5	21	5	5	10	79.5
KHUD/BL/28	8	3.5	9	20	24	5	5	10	84.5
KHUD/BL/29	8	3.5	9	17.5	21	5	5	10	79
KHUD/BL/31	8	4.5	9	17.5	21	4	5	10	79
KHUD/BL/32	8	4	8	17.5	18	5	5	10	75.5
KHUD/BL/33	8	4	9	20	21	5	5	10	82
KHUD/BL/34	8	4	9	20	21	4	5	10	81
KHUD/BL/35	8	4	8	17.5	21	5	5	10	78.5
KHUD/BL/36	8	4	8	17.5	21	5	5	10	78.5
KHUD/BL/37	8	3.5	10	20	24	5	5	10	85.5
KHUD/BL/38	7	3.5	9	25	24	4	5	10	87.5
KHUD/BL/39	7	3.5	8	22.5	21	4	5	10	81
KHUD/BL/40	8	3.5	7	17.5	18	5	5	10	74
KHUD/BL/41	7	3.5	9	20	21	4	5	10	79.5
KHUD/BL/42	8	4.5	8	20	21	5	5	10	81.5
KHUD/BL/43	8	4	7	20	24	5	5	10	83
KHUD/BL/44	8	4	9	17.5	21	4	5	10	78.5
KHUD/BL/45	8	4	7	20	21	5	5	10	80
KHUD/BL/46	7	3.5	7	17.5	18	5	5	10	73
KHUD/BL/48	8	3.5	9	25	24	4	5	10	88.5

Table II.109 Class Interval and Respective Scores for Quantitative Traits for *Madhuca latifolia* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
6.5-7.0	6	1.70-2.60	6	1.00-1.14	6	3.3-4.5	6	4-5	6
7.1-7.6	7	2.61-3.51	7	1.15-1.29	7	4.6-5.8	7	6-7	7
7.7-8.2	8	3.52-4.42	8	1.30-1.44	8	5.9-7.1	8	8-9	8
8.3-8.8	9	4.43-5.33	9	1.45-1.59	9	7.2-8.4	9	10-11	9
8.9-9.4	10	5.34-6.24	10	1.60-1.74	10	8.5-9.7	10	12-13	10

Table II.110 Scored data of Candidate Plus Trees of *Madhuca latifolia* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHUD/ML/1	7	6	10	10	8	7	7	10
KHUD/ML/2	8	6	7	6	7	7	7	10
KHUD/ML/3	8	10	9	9	7	7	7	10
KHUD/ML/4	6	6	6	7	10	7	10	10
KHUD/ML/5	7	6	7	7	10	7	10	10
KHUD/ML/6	9	6	8	8	7	10	10	10
KHUD/ML/7	6	6	9	10	8	10	7	10
KHUD/ML/8	8	6	8	9	6	7	7	10
KHUD/ML/9	7	6	8	8	6	10	7	10

Table II.111 Weightage Score for Each Trait of Candidate Plus Trees of *Madhuca latifolia* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHUD/ML/1	7	3	10	25	24	3.5	3.5	10	86
KHUD/ML/2	8	3	7	15	21	3.5	3.5	10	71
KHUD/ML/3	8	5	9	22.5	21	3.5	3.5	10	82.5
KHUD/ML/4	6	3	6	17.5	30	3.5	5	10	81
KHUD/ML/5	7	3	7	17.5	30	3.5	5	10	83
KHUD/ML/6	9	3	8	20	21	5	5	10	81
KHUD/ML/7	6	3	9	25	24	5	3.5	10	85.5
KHUD/ML/8	8	3	8	22.5	18	3.5	3.5	10	76.5
KHUD/ML/9	7	3	8	20	18	5	3.5	10	74.5

Table II.112 Class Interval and Respective Scores for Quantitative Traits for *Soymida febrifuga* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
2.96-4.94	6	0.1-0.9	6	0.36-0.60	6	0.6-1.8	6	1-6	6
4.95-6.93	7	1.0-1.8	7	0.61-0.85	7	1.9-3.1	7	7-12	7
6.94-8.92	8	1.9-2.7	8	0.96-1.10	8	3.2-4.4	8	13-18	8
8.93-10.91	9	2.8-3.6	9	1.11-1.35	9	4.5-5.7	9	19-24	9
10.92-12.90	10	3.7-4.5	10	1.36-1.60	10	5.8-7.0	10	25-30	10

Table II.113 Scored data of Candidate Plus Trees of *Soymida febrifuga* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHUD/SF/1	8	8	6	7	7	6	6	10
KHUD/SF/2	8	7	7	7	6	6	6	10
KHUD/SF/3	10	7	8	8	7	10	10	8
KHUD/SF/4	8	7	7	7	6	10	6	8
KHUD/SF/5	8	8	7	7	7	6	6	10
KHUD/SF/6	8	7	6	6	7	6	6	10

KHUD/SF/7	8	7	7	6	6	10	10	8
KHUD/SF/8	8	10	6	6	6	10	6	8
KHUD/SF/9	9	8	7	7	6	6	6	10
KHUD/SF/10	8	7	7	6	6	6	6	10
KHUD/SF/11	7	7	7	6	6	10	10	8
KHUD/SF/12	8	8	6	6	6	6	6	10
KHUD/SF/13	7	8	7	6	6	6	8	10
KHUD/SF/14	8	7	7	6	6	10	10	8
KHUD/SF/15	9	10	6	7	7	6	8	10
KHUD/SF/16	8	9	6	6	6	8	8	10
KHUD/SF/17	10	9	6	6	6	10	10	8
KHUD/SF/18	8	8	6	6	6	10	8	8
KHUD/SF/19	8	7	6	6	7	8	8	10
KHUD/SF/20	8	8	8	6	7	6	6	10
KHUD/SF/21	8	8	8	6	6	10	10	8
KHUD/SF/22	7	7	8	6	6	10	8	8
KHUD/SF/23	8	7	7	6	7	6	8	10
KHUD/SF/24	8	7	7	7	6	6	8	10
KHUD/SF/25	8	8	7	7	6	8	6	10
KHUD/SF/26	6	7	6	6	6	6	6	10
KHUD/SF/27	9	8	7	7	6	10	10	8
KHUD/SF/28	7	8	6	7	7	10	6	8
KHUD/SF/29	7	8	7	7	7	6	8	10
KHUD/SF/30	7	7	6	6	7	6	8	10
KHUD/SF/31	7	7	7	7	7	10	10	8
KHUD/SF/32	9	8	6	7	7	10	6	8
KHUD/SF/33	8	8	6	7	7	6	6	10
KHUD/SF/34	7	9	6	7	8	6	6	10
KHUD/SF/35	10	8	8	7	10	6	6	10
KHUD/SF/36	8	9	6	7	7	6	8	10
KHUD/SF/38	9	9	6	6	6	6	8	10
KHUD/SF/43	6	8	6	6	6	8	10	10
KHUD/SF/44	8	10	7	8	6	8	10	10
KHUD/SF/45	8	8	6	9	6	8	10	10
KHUD/SF/46	8	9	6	9	6	8	10	10
KHUD/SF/47	7	7	7	8	7	8	10	10
KHUD/SF/48	6	8	6	7	7	8	10	10
KHUD/SF/49	7	8	10	8	6	6	8	10
KHUD/SF/50	8	8	7	10	7	8	10	10
KHUD/SF/51	8	8	8	8	7	8	10	10
KHUD/SF/53	7	8	7	8	6	8	10	10
KHUD/SF/54	9	9	8	10	7	8	10	10
KHUD/SF/55	8	8	10	10	7	8	10	10
KHUD/SF/56	7	8	7	9	7	8	10	10
KHUD/SF/57	7	9	7	7	6	10	10	10

KHUD/SF/58	7	7	7	7	6	8	10	10
KHUD/SF/59	7	9	8	7	6	10	10	10
KHUD/SF/60	7	9	7	8	7	8	10	10
KHUD/SF/62	9	8	9	7	7	8	10	10
KHUD/SF/63	8	9	7	7	6	8	10	10
KHUD/SF/65	8	10	7	7	6	10	10	10
KHUD/SF/66	10	10	8	10	8	8	10	10
KHUD/SF/67	8	9	7	7	6	8	10	10
KHUD/SF/69	9	7	7	7	6	8	10	10
KHUD/SF/70	8	9	6	7	6	8	10	10
KHUD/SF/71	8	8	6	7	7	8	10	10
KHUD/SF/73	8	8	7	7	6	8	10	10
KHUD/SF/74	7	9	6	7	7	8	10	10
KHUD/SF/75	6	8	6	6	7	8	10	10
KHUD/SF/76	8	9	7	7	6	8	10	10
KHUD/SF/77	8	9	7	7	6	10	10	10
KHUD/SF/78	8	8	8	7	6	8	10	10
KHUD/SF/79	6	7	6	7	6	8	10	10
KHUD/SF/80	7	6	6	6	6	8	10	10
KHUD/SF/81	7	8	7	7	6	8	10	10

Table II.114 Weightage Score for Each Trait of Candidate Plus Trees of *Soymida febrifuga* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHUD/SF/1	12	16	12	1.75	1.75	9	9	10	71.5
KHUD/SF/2	12	14	14	1.75	1.5	9	9	10	71.25
KHUD/SF/3	15	14	16	2	1.75	15	15	8	86.75
KHUD/SF/4	12	14	14	1.75	1.5	15	9	8	75.25
KHUD/SF/5	12	16	14	1.75	1.75	9	9	10	73.5
KHUD/SF/6	12	14	12	1.5	1.75	9	9	10	69.25
KHUD/SF/7	12	14	14	1.5	1.5	15	15	8	81
KHUD/SF/8	12	20	12	1.5	1.5	15	9	8	79
KHUD/SF/9	13.5	16	14	1.75	1.5	9	9	10	74.75
KHUD/SF/10	12	14	14	1.5	1.5	9	9	10	71
KHUD/SF/11	10.5	14	14	1.5	1.5	15	15	8	79.5
KHUD/SF/12	12	16	12	1.5	1.5	9	9	10	71
KHUD/SF/13	10.5	16	14	1.5	1.5	9	12	10	74.5
KHUD/SF/14	12	14	14	1.5	1.5	15	15	8	81
KHUD/SF/15	13.5	20	12	1.75	1.75	9	12	10	80
KHUD/SF/16	12	18	12	1.5	1.5	12	12	10	79
KHUD/SF/17	15	18	12	1.5	1.5	15	15	8	86
KHUD/SF/18	12	16	12	1.5	1.5	15	12	8	78
KHUD/SF/19	12	14	12	1.5	1.75	12	12	10	75.25
KHUD/SF/20	12	16	16	1.5	1.75	9	9	10	75.25

KHUD/SF/21	12	16	16	1.5	1.5	15	15	8	85
KHUD/SF/22	10.5	14	16	1.5	1.5	15	12	8	78.5
KHUD/SF/23	12	14	14	1.5	1.75	9	12	10	74.25
KHUD/SF/24	12	14	14	1.75	1.5	9	12	10	74.25
KHUD/SF/25	12	16	14	1.75	1.5	12	9	10	76.25
KHUD/SF/26	9	14	12	1.5	1.5	9	9	10	66
KHUD/SF/27	13.5	16	14	1.75	1.5	15	15	8	84.75
KHUD/SF/28	10.5	16	12	1.75	1.75	15	9	8	74
KHUD/SF/29	10.5	16	14	1.75	1.75	9	12	10	75
KHUD/SF/30	10.5	14	12	1.5	1.75	9	12	10	70.75
KHUD/SF/31	10.5	14	14	1.75	1.75	15	15	8	80
KHUD/SF/32	13.5	16	12	1.75	1.75	15	9	8	77
KHUD/SF/33	12	16	12	1.75	1.75	9	9	10	71.5
KHUD/SF/34	10.5	18	12	1.75	2	9	9	10	72.25
KHUD/SF/35	15	16	16	1.75	2.5	9	9	10	79.25
KHUD/SF/36	12	18	12	1.75	1.75	9	12	10	76.5
KHUD/SF/38	13.5	18	12	1.5	1.5	9	12	10	77.5
KHUD/SF/43	9	16	12	1.5	1.5	12	15	10	77
KHUD/SF/44	12	20	14	2	1.5	12	15	10	86.5
KHUD/SF/45	12	16	12	2.25	1.5	12	15	10	80.75
KHUD/SF/46	12	18	12	2.25	1.5	12	15	10	82.75
KHUD/SF/47	10.5	14	14	2	1.75	12	15	10	79.25
KHUD/SF/48	9	16	12	1.75	1.75	12	15	10	77.5
KHUD/SF/49	10.5	16	20	2	1.5	9	12	10	81
KHUD/SF/50	12	16	14	2.5	1.75	12	15	10	83.25
KHUD/SF/51	12	16	16	2	1.75	12	15	10	84.75
KHUD/SF/53	10.5	16	14	2	1.5	12	15	10	81
KHUD/SF/54	13.5	18	16	2.5	1.75	12	15	10	88.75
KHUD/SF/55	12	16	20	2.5	1.75	12	15	10	89.25
KHUD/SF/56	10.5	16	14	2.25	1.75	12	15	10	81.5
KHUD/SF/57	10.5	18	14	1.75	1.5	15	15	10	85.75
KHUD/SF/58	10.5	14	14	1.75	1.5	12	15	10	78.75
KHUD/SF/59	10.5	18	16	1.75	1.5	15	15	10	87.75
KHUD/SF/60	10.5	18	14	2	1.75	12	15	10	83.25
KHUD/SF/62	13.5	16	18	1.75	1.75	12	15	10	88
KHUD/SF/63	12	18	14	1.75	1.5	12	15	10	84.25
KHUD/SF/65	12	20	14	1.75	1.5	15	15	10	89.25
KHUD/SF/66	15	20	16	2.5	2	12	15	10	92.5
KHUD/SF/67	12	18	14	1.75	1.5	12	15	10	84.25
KHUD/SF/69	13.5	14	14	1.75	1.5	12	15	10	81.75
KHUD/SF/70	12	18	12	1.75	1.5	12	15	10	82.25
KHUD/SF/71	12	16	12	1.75	1.75	12	15	10	80.5
KHUD/SF/73	12	16	14	1.75	1.5	12	15	10	82.25
KHUD/SF/74	10.5	18	12	1.75	1.75	12	15	10	81
KHUD/SF/75	9	16	12	1.5	1.75	12	15	10	77.25
KHUD/SF/76	12	18	14	1.75	1.5	12	15	10	84.25

KHUD/SF/77	12	18	14	1.75	1.5	15	15	10	87.25
KHUD/SF/78	12	16	16	1.75	1.5	12	15	10	84.25
KHUD/SF/79	9	14	12	1.75	1.5	12	15	10	75.25
KHUD/SF/80	10.5	12	12	1.5	1.5	12	15	10	74.5
KHUD/SF/81	10.5	16	14	1.75	1.5	12	15	10	80.75

Table II.115 Class Interval and Respective Scores for Quantitative Traits for *Terminalia arjuna* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score	Bark thickness	Score
3.90-6.30	6	2.80-6.60	6	0.60-0.84	6	3.90-5.80	6	4-5	6	5.9-24.7	6
6.40-8.80	7	6.70-10.50	7	0.85-1.09	7	8.9-7.80	7	6-7	7	24.8-43.6	7
8.90-11.30	8	10.60-14.40	8	1.10-1.34	8	7.90-9.80	8	8-9	8	43.7-62.5	8
11.40-13.80	9	14.50-18.30	9	1.35-1.59	9	9.90-11.80	9	10-11	9	62.6-81.4	9
13.90-16.30	10	18.40-22.20	10	1.60-1.84	10	11.90-13.80	10	12-13	10	81.5-100.3	10

TableII.116 Scored data of Plus Trees of *Terminalia arjuna* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Bark thickness	Stem Straightness	Stem Form	Infection
BANS/TA/1	6	6	10	8	7	6	8	10	10
BANS/TA/2	8	6	7	7	10	8	8	10	10
BANS/TA/3	6	10	9	7	7	6	8	10	10
BANS/TA/4	9	6	8	8	9	8	8	10	10
BANS/TA/5	9	6	8	8	10	8	8	10	10
BANS/TA/8	8	6	7	7	7	7	8	10	10
BANS/TA/9	9	7	7	6	8	7	8	10	10
BANS/TA/10	8	6	7	7	10	8	8	10	10
BANS/TA/11	6	9	8	7	8	6	8	10	10
BANS/TA/12	9	6	7	8	9	8	8	10	10
BANS/TA/13	8	6	8	10	8	8	8	10	10
BANS/TA/14	8	6	7	8	9	7	8	10	10
BANS/TA/15	9	7	7	7	8	8	8	10	10
BANS/TA/16	8	6	6	7	6	7	8	10	10
BANS/TA/17	10	6	7	7	9	8	8	10	10
BANS/TA/18	9	6	7	9	8	8	8	10	10
BANS/TA/19	9	6	7	7	7	7	8	10	10
BANS/TA/20	10	6	6	7	6	7	8	10	10
BANS/TA/21	10	7	7	7	7	7	8	10	10
BANS/TA/22	10	6	8	6	9	9	8	10	10
BANS/TA/23	10	7	9	9	9	8	8	10	10
BANS/TA/24	10	6	7	8	8	8	8	10	10
BANS/TA/25	9	6	8	7	7	8	8	10	10
BANS/TA/26	10	6	8	7	8	8	8	10	10
BANS/TA/27	10	6	8	7	8	8	8	10	10
BANS/TA/28	10	6	7	7	9	9	8	10	10

BANS/TA/29	10	6	8	6	6	8	8	10	10
BANS/TA/30	10	6	8	9	10	8	8	10	10
BANS/TA/31	9	6	7	7	9	8	8	10	10
BANS/TA/32	6	10	9	8	8	6	10	8	10
BANS/TA/33	10	6	9	10	9	7	8	10	10
BANS/TA/34	10	6	9	6	8	7	8	10	10
BANS/TA/35	9	6	9	7	8	10	8	10	10
BANS/TA/36	9	6	9	7	8	10	8	10	10
BANS/TA/37	10	7	8	6	7	8	8	10	10
BANS/TA/38	6	9	10	7	10	6	10	8	10
BANS/TA/39	9	6	9	6	8	9	8	10	10
BANS/TA/40	9	7	8	7	8	8	8	10	10
BANS/TA/41	9	6	8	6	9	8	8	10	10
BANS/TA/42	10	6	9	6	10	10	8	10	10
BANS/TA/43	9	6	6	6	6	7	8	10	10
BANS/TA/44	9	6	7	6	7	7	8	10	10
BANS/TA/45	9	7	6	6	6	7	8	10	10
BANS/TA/46	9	7	6	7	8	7	8	10	10
BANS/TA/47	10	6	9	8	9	8	8	10	10
BANS/TA/48	7	6	7	8	10	8	8	10	10
BANS/TA/49	9	6	7	8	9	8	8	10	10
BANS/TA/50	7	6	6	6	7	7	8	10	10
BANS/TA/51	7	6	7	7	7	7	8	10	10
BANS/TA/52	7	6	7	6	7	7	8	10	10
BANS/TA/53	10	6	8	9	7	9	8	10	10
BANS/TA/54	8	6	6	7	7	7	8	10	10
BANS/TA/55	8	6	7	7	9	8	8	10	10
BANS/TA/56	9	7	7	7	7	7	8	10	10
BANS/TA/57	7	6	6	6	7	8	8	10	10
BANS/TA/58	7	6	6	6	7	7	8	10	10
BANS/TA/59	8	6	7	6	10	7	8	10	10
BANS/TA/60	8	7	7	7	7	7	8	10	10
BANS/TA/61	7	6	7	6	6	7	8	10	10
BANS/TA/62	7	6	6	6	6	7	8	10	10
BANS/TA/63	8	6	6	7	6	7	8	10	10
BANS/TA/64	8	6	7	7	7	7	8	10	10
BANS/TA/65	8	7	6	6	6	7	8	10	10
BANS/TA/66	8	6	7	6	7	7	8	10	10
BANS/TA/67	7	6	6	6	8	7	8	10	10

Table II.117 Weightage Score for Each Trait of Plus Trees of *Terminalia arjuna* in Purulia Division

Tree No.	Total height (m)	Clear Bole Height (m)	Girth at Breast Height (m)	Crown Width (m)	Number of Branches	Bark Thickness(mm)	Stem Straightness	Stem Form	Infection	Total Score
BANS/TA/1	9	9	15	2	1.75	12	8	10	10	76.75
BANS/TA/2	12	9	10.5	1.75	2.5	16	8	10	10	79.75
BANS/TA/3	9	15	13.5	1.75	1.75	12	8	10	10	81.00
BANS/TA/4	13.5	9	12	2	2.25	16	8	10	10	82.75
BANS/TA/5	13.5	9	12	2	2.5	16	8	10	10	83.00
BANS/TA/8	12	9	10.5	1.75	1.75	14	8	10	10	77.00
BANS/TA/9	13.5	10.5	10.5	1.5	2	14	8	10	10	80.00
BANS/TA/10	12	9	10.5	1.75	2.5	16	8	10	10	79.75
BANS/TA/11	9	13.5	12	1.75	2	12	8	10	10	78.25
BANS/TA/12	13.5	9	10.5	2	2.25	16	8	10	10	81.25
BANS/TA/13	12	9	12	2.5	2	16	8	10	10	81.50
BANS/TA/14	12	9	10.5	2	2.25	14	8	10	10	77.75
BANS/TA/15	13.5	10.5	10.5	1.75	2	16	8	10	10	82.25
BANS/TA/16	12	9	9	1.75	1.5	14	8	10	10	75.25
BANS/TA/17	15	9	10.5	1.75	2.25	16	8	10	10	82.50
BANS/TA/18	13.5	9	10.5	2.25	2	16	8	10	10	81.25
BANS/TA/19	13.5	9	10.5	1.75	1.75	14	8	10	10	78.50
BANS/TA/20	15	9	9	1.75	1.5	14	8	10	10	78.25
BANS/TA/21	15	10.5	10.5	1.75	1.75	14	8	10	10	81.50
BANS/TA/22	15	9	12	1.5	2.25	18	8	10	10	85.75
BANS/TA/23	15	10.5	13.5	2.25	2.25	16	8	10	10	87.50
BANS/TA/24	15	9	10.5	2	2	16	8	10	10	82.50
BANS/TA/25	13.5	9	12	1.75	1.75	16	8	10	10	82.00
BANS/TA/26	15	9	12	1.75	2	16	8	10	10	83.75
BANS/TA/27	15	9	12	1.75	2	16	8	10	10	83.75
BANS/TA/28	15	9	10.5	1.75	2.25	18	8	10	10	84.50
BANS/TA/29	15	9	12	1.5	1.5	16	8	10	10	83.00
BANS/TA/30	15	9	12	2.25	2.5	16	8	10	10	84.75
BANS/TA/31	13.5	9	10.5	1.75	2.25	16	8	10	10	81.00
BANS/TA/32	9	15	13.5	2	2	12	10	8	10	81.50
BANS/TA/33	15	9	13.5	2.5	2.25	14	8	10	10	84.25
BANS/TA/34	15	9	13.5	1.5	2	14	8	10	10	83.00
BANS/TA/35	13.5	9	13.5	1.75	2	20	8	10	10	87.75
BANS/TA/36	13.5	9	13.5	1.75	2	20	8	10	10	87.75
BANS/TA/37	15	10.5	12	1.5	1.75	16	8	10	10	84.75
BANS/TA/38	9	13.5	15	1.75	2.5	12	10	8	10	81.75
BANS/TA/39	13.5	9	13.5	1.5	2	18	8	10	10	85.50
BANS/TA/40	13.5	10.5	12	1.75	2	16	8	10	10	83.75
BANS/TA/41	13.5	9	12	1.5	2.25	16	8	10	10	82.25
BANS/TA/42	15	9	13.5	1.5	2.5	20	8	10	10	89.50
BANS/TA/43	13.5	9	9	1.5	1.5	14	8	10	10	76.50

BANS/TA/44	13.5	9	10.5	1.5	1.75	14	8	10	10	78.25
BANS/TA/45	13.5	10.5	9	1.5	1.5	14	8	10	10	78.00
BANS/TA/46	13.5	10.5	9	1.75	2	14	8	10	10	78.75
BANS/TA/47	15	9	13.5	2	2.25	16	8	10	10	85.75
BANS/TA/48	10.5	9	10.5	2	2.5	16	8	10	10	78.50
BANS/TA/49	13.5	9	10.5	2	2.25	16	8	10	10	81.25
BANS/TA/50	10.5	9	9	1.5	1.75	14	8	10	10	73.75
BANS/TA/51	10.5	9	10.5	1.75	1.75	14	8	10	10	75.50
BANS/TA/52	10.5	9	10.5	1.5	1.75	14	8	10	10	75.25
BANS/TA/53	15	9	12	2.25	1.75	18	8	10	10	86.00
BANS/TA/54	12	9	9	1.75	1.75	14	8	10	10	75.50
BANS/TA/55	12	9	10.5	1.75	2.25	16	8	10	10	79.50
BANS/TA/56	13.5	10.5	10.5	1.75	1.75	14	8	10	10	80.00
BANS/TA/57	10.5	9	9	1.5	1.75	16	8	10	10	75.75
BANS/TA/58	10.5	9	9	1.5	1.75	14	8	10	10	73.75
BANS/TA/59	12	9	10.5	1.5	2.5	14	8	10	10	77.50
BANS/TA/60	12	10.5	10.5	1.75	1.75	14	8	10	10	78.50
BANS/TA/61	10.5	9	10.5	1.5	1.5	14	8	10	10	75.00
BANS/TA/62	10.5	9	9	1.5	1.5	14	8	10	10	73.50
BANS/TA/63	12	9	9	1.75	1.5	14	8	10	10	75.25
BANS/TA/64	12	9	10.5	1.75	1.75	14	8	10	10	77.00
BANS/TA/65	12	10.5	9	1.5	1.5	14	8	10	10	76.50
BANS/TA/66	12	9	10.5	1.5	1.75	14	8	10	10	76.75
BANS/TA/67	10.5	9	9	1.5	2	14	8	10	10	74.00

Table II.118 Class Interval and Respective Scores for Quantitative Traits of *Terminalia bellirica* in Purulia Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
8.00-9.20	6	3.04-5.44	6	0.53-2.43	6	1.50-2.90	6	4-5	6
9.30-10.50	7	5.45-7.85	7	2.44-4.34	7	2.10-3.50	7	6-7	7
10.60-11.80	8	7.86-10.26	8	4.35-6.25	8	3.60-5.00	8	8-9	8
11.90-13.10	9	10.27-12.67	9	6.26-8.16	9	5.01-6.41	9	10-11	9
13.20-14.40	10	12.68-15.08	10	8.17-10.07	10	6.42-7.82	10	12-13	10

Table II.119 Scored data of Candidate Plus Trees of *Terminalia bellirica* in Purulia Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CHAU/TB/1	9	6	10	10	10	10	6	10
CHAU/TB/3	9	10	9	8	6	6	6	10
CHAU/TB/6	10	7	8	6	7	6	6	10
CHAU/TB/7	10	6	10	7	10	10	10	10
CHAU/TB/8	6	6	6	9	9	8	10	10
CHAU/TB/9	7	6	6	9	8	8	10	10
CHAU/TB/10	6	6	6	10	6	8	10	10
CHAU/TB/11	6	6	6	8	6	8	10	10
CHAU/TB/12	10	6	6	10	10	8	10	10
CHAU/TB/13	6	6	6	9	6	8	10	10

Table II.120 Weightage Score for Each Trait of Candidate Plus Trees of *Terminalia bellirica* in Purulia Divisions

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CHAU/TB/1	13.5	12	20	2.5	2.5	15	9	10	84.5
CHAU/TB/3	13.5	20	18	2	1.5	9	9	10	83
CHAU/TB/6	15	14	16	1.5	1.75	9	9	10	76.25
CHAU/TB/7	15	12	20	1.75	2.5	15	15	10	91.25
CHAU/TB/8	9	12	12	2.25	2.25	12	15	10	74.5
CHAU/TB/9	10.5	12	12	2.25	2	12	15	10	75.75
CHAU/TB/10	9	12	12	2.5	1.5	12	15	10	74
CHAU/TB/11	9	12	12	2	1.5	12	15	10	73.5
CHAU/TB/12	15	12	12	2.5	2.5	12	15	10	81
CHAU/TB/13	9	12	12	2.25	1.5	12	15	10	73.75

Annexure-III

II. Silviculture Hill Division

Table III.1 Class Interval and Respective Scores for Quantitative Traits for *Bucklandia populnea* in Darjeeling GTA Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
20.8-21.2	6	8.8-10.4	6	1.4-1.48	6	5.03-5.82	6	13-14	6
21.3-21.7	7	10.5-12.1	7	1.49-1.57	7	5.83-6.62	7	15-16	7
21.8-22.2	8	12.2-13.8	8	1.58-1.66	8	6.63-7.42	8	17-18	8
22.3-22.7	9	13.9-15.5	9	1.67-1.75	9	7.43-8.22	9	19-20	9
22.8-23.2	10	15.6-17.2	10	1.76-1.84	10	8.23-9.02	10	21-22	10

Table III.2 Scored data of Plus Trees of *Bucklandia populnea* in Darjeeling GTA Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MPLOT/BP/9	6	10	6	10	7	10	10	10
MPLOT/BP/5	8	9	7	6	8	10	10	10
MPLOT/BP/10	10	9	8	8	9	10	10	10
MPLOT/BP/8	8	6	10	7	10	7	7	10

Table III.3 Weightage Score for Each Trait of Plus Trees of *Bucklandia Populnea* in Darjeeling GTA Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MPLOT/BP/9	9	20	12	2.5	1.75	15	15	10	85.25
MPLOT/BP/5	12	18	14	1.5	2	15	15	10	87.5
MPLOT/BP/10	15	18	16	2	2.25	15	15	10	93.25
MPLOT/BP/8	12	12	20	1.75	2.5	10.5	10.5	10	79.25

Table III.4 Class Interval and Respective Scores for Quantitative Traits for *Cupressus cashmeriana* in Darjeeling GTA Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
	9	18	9	2.3	9	4.5	9	7	9
22	10	19	10	2.4	10	8	10	13	10

Table III.5 Scored data of Plus Trees of *Cupressus cashmeriana* in Darjeeling GTA Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MPLOT/CC/4	10	9	10	10	10	7	7	10
MPLOT/CC/5	10	10	9	9	9	7	7	10

Table III.6 Weightage Score for Each Trait of Plus Trees of *Cupressus cashmeriana* in Darjeeling GTA Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MPLOT/CC/4	15	18	20	2.5	2.5	10.5	10.5	10	89
MPLOT/CC/5	15	20	18	2.25	2.25	10.5	10.5	10	88.5

Table III.7 Class Interval and Respective Scores for Quantitative Traits for *Beilschmiedia gammieana* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
24	9	12	9	1.3	9	7	9	8	9
29	10	21	10	1.65	10	13	10	9	10

Table III.8 Scored data of Plus Trees of *Beilschmiedia gammieana* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
BG 1	9	9	10	10	9	7	7	10
BG 2	10	10	9	9	10	7	7	10

Table III.9 Weightage Score for Each Trait of Plus Trees of *Beilschmiedia gammieana* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
BG 1	13.5	18	20	2.5	2.25	10.5	10.5	10	87.25
BG 2	15	20	18	2.25	2.5	10.5	10.5	10	88.75

Table III.10 Class Interval and Respective Scores for Quantitative Traits for *Engelhardtia spicata* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
28	8	20	8	2.35	8	13.5	8	10	8
32	9	21	9	2.40	9	15	9	12	9
34	10	21	10	3.4	10	21	10	14	10

Table III.11 Scored data of Plus Trees of *Engelhardtia spicata* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ES 1	10	9	10	10	8	10	7	10
ES 2	8	10	9	9	10	10	10	10
ES 3	9	10	8	8	9	10	7	10

Table III.12 Weightage Score for Each Trait of Plus Trees of *Engelhardtia spicata* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ES 1	15	18	20	2.5	2	15	10.5	10	93
ES 2	12	20	18	2.25	2.5	15	15	10	94.75
ES 3	13.5	20	16	2	2.25	15	10.5	10	89.25

Table III.13 Class Interval and Respective Scores for Quantitative Traits for *Macaranga pustulata* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
25	9	12	9	1.22	9	8	9	8	9
30	10	18	10	1.55	10	12	10	9	10

Table III.14 Scored data of Plus Trees of *Macaranga pustulata* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MP 1	9	10	9	9	10	10	10	10
MP 2	10	9	10	10	9	10	10	10

Table III.15 Weightage Score for Each Trait of Plus Trees *Macaranga pustulata* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MP 1	13.5	20	18	2.25	2.5	15	15	10	96.25
MP 2	15	18	20	2.5	2.25	15	15	10	97.75

Table III.16 Class Interval and Respective Scores for Quantitative Traits for *Machilus edulis* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
19.8-22.0	6	7.8-11.0	6	1.40-1.49	6	5.8-7.8	6	4-5	6
22.1-24.3	7	11.1-14.3	7	1.50-1.59	7	7.9-9.9	7	6-7	7
24.4-26.6	8	14.4-17.6	8	1.60-1.69	8	10.0-12.0	8	8-9	8
26.7-28.9	9	17.7-20.9	9	1.70-1.79	9	12.1-14.1	9	10-11	9
29.0-31.2	10	21.0-24.3	10	1.80-1.89	10	14.2-16.2	10	12-13	10

Table III.17 Scored data of Plus Trees and Candidate Plus Tree of *Machilus edulis* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
ME 1 (Linding)	7	8	8	6	9	10	10	10
ME 1	9	10	9	7	8	10	10	10
ME 2	10	6	8	9	10	10	10	10
ME 3	6	8	7	7	7	10	10	10
ME 4	8	9	10	10	10	10	10	10
ME 2	8	8	10	9	8	10	10	10
ME 3	6	7	6	6	8	10	10	10
ME 4	8	9	9	8	10	10	10	10
ME 5	10	10	9	8	10	10	10	10
ME 6	7	7	9	8	9	10	10	10
ME 7	7	9	9	7	8	10	10	10
ME 8	10	10	8	8	9	10	10	10
ME 9	7	9	10	8	7	10	10	10

**Bold text are of Plus Trees*

Table III.18 Weightage Score for Each Trait of Plus Trees and Candidate Plus Tree *Machilus edulis* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
ME 1 (Linding)	10.5	16	16	1.5	2.25	15	15	10	86.25
ME 1	13.5	20	18	1.75	2	15	15	10	95.25
ME 2	15	12	16	2.25	2.5	15	15	10	87.75
ME 3	9	16	14	1.75	1.75	15	15	10	82.5
ME 4	12	18	20	2.5	2.5	15	15	10	95
ME 2	12	16	20	2.25	2	15	15	10	92.25
ME 3	9	14	12	1.5	2	15	15	10	78.5
ME 4	12	18	18	2	2.5	15	15	10	92.5
ME 5	15	20	18	2	2.5	15	15	10	97.5
ME 6	10.5	14	18	2	2.25	15	15	10	86.75
ME 7	10.5	18	18	1.75	2	15	15	10	90.25
ME 8	15	20	16	2	2.25	15	15	10	95.25
ME 9	10.5	18	20	2	1.75	15	15	10	92.25

Table III.19 Class Interval and Respective Scores for Quantitative Traits for *Nyssa javanica* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8	5	8	1.43	8	6	8	8	8
24	9	15	9	1.55	9	7	9	9	9
32	10	20	10	1.73	10	9	10	13	10

Table III.20 Scored data of Plus Trees of *Nyssa javanica* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NJ 1	10	8	8	9	10	10	10	10
NJ 4	9	10	9	8	8	10	10	10
NJ 5	9	9	10	10	9	10	10	10

Table. III.21 Weightage Score for Each Trait of Plus Trees *Nyssa javanica* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NJ 1	15	16	16	2.25	2.5	15	15	10	91.75
NJ 4	13.5	20	18	2	2	15	15	10	95.5
NJ 5	13.5	18	20	2.5	2.25	15	15	10	96.25

Table III.22 Class Interval and Respective Scores for Quantitative Traits for *Taxus wallichiana* in Darjeeling Hill Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
8.9-9.3	6	2.8-3.4	6	0.66-0.69	6	7.8-8.2	6	8	6
9.4-9.8	7	3.5-4.1	7	0.70-0.73	7	8.3-8.7	7	9	7
9.9-10.3	8	4.2-4.8	8	0.74-0.77	8	8.8-9.2	8	10	8
10.4-10.8	9	4.9-5.5	9	0.78-0.81	9	9.3-9.7	9	11	9
10.9-11.3	10	5.6-6.2	10	0.82-0.85	10	9.8-10.2	10	12	10

Table III.23 Scored data of Plus Trees of *Taxus wallichiana* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
TW 3	6	7	6	10	9	10	10	10
TW 4	10	6	9	6	8	10	10	10
TW 5	8	7	8	10	10	10	10	10
TW 6	8	7	10	8	8	10	10	10
TW 7	7	6	8	9	7	10	10	10
TW 8	9	10	9	8	7	10	10	10

Table III.24 Weightage Score for Each Trait of Plus Trees *Taxus wallichiana* in Darjeeling Hill Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
TW 3	9	14	12	2.5	2.25	15	15	10	79.75
TW 4	15	12	18	1.5	2	15	15	10	88.5
TW 5	12	14	16	2.5	2.5	15	15	10	87
TW 6	12	14	20	2	2	15	15	10	90
TW 7	10.5	12	16	2.25	1.75	15	15	10	82.5
TW 8	13.5	20	18	2	1.75	15	15	10	95.25

Table III.25 Class Interval and Respective Scores for Quantitative Traits for *Acer campbellii* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
14.9-19.9	6	7.9-11.9	6	1.0-1.09	6	5.9-9.9	6	4.9-6.1	6
20.0-25.0	7	12.0-16.0	7	1.10-1.19	7	10.0-14.0	7	6.2-7.4	7
25.1-30.1	8	16.1-20.1	8	1.20-1.29	8	14.1-18.1	8	7.5-8.7	8
30.2-35.2	9	20.2-24.2	9	1.30-1.39	9	18.2-22.2	9	8.8-10.0	9
35.3-40.3	10	24.3-28.3	10	1.40-1.49	10	22.3-26.3	10	10.1-11.3	10

Table III.26 Scored data of Candidate Plus Trees of *Acer campbellii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RAMB/AC/1	6	6	10	6	9	10	7	10
SUREL/AC/4	8	6	10	6	6	10	7	10
SUREL/AC/5	10	8	7	6	7	7	7	10
SUREL/AC/6	10	6	7	10	9	10	10	10
SUREL/AC/7	10	9	7	6	7	7	10	10
SUREL/AC/8	9	10	6	6	6	10	7	10
SUREL/AC/9	10	7	7	6	10	7	7	10

Table III.27 Weightage Score for Each Trait of Candidate Plus Trees of *Acer campbellii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RAMB/AC/1	9	12	20	1.5	2.25	15	10.5	10	80.25
SUREL/AC/4	12	12	20	1.5	1.5	15	10.5	10	82.5
SUREL/AC/5	15	16	14	1.5	1.75	10.5	10.5	10	79.25
SUREL/AC/6	15	12	14	2.5	2.25	15	15	10	85.75
SUREL/AC/7	15	18	14	1.5	1.75	10.5	15	10	85.75
SUREL/AC/8	13.5	20	12	1.5	1.5	15	10.5	10	84
SUREL/AC/9	15	14	14	1.5	2.5	10.5	10.5	10	78

Table III.28 Class Interval and Respective Scores for Quantitative Traits for *Albizia lebbeck* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.3-19.2	6	12.0-12.9	6	1.51-1.62	6	6.0-7.0	6	4-5	6
19.3-21.2	7	13.0-13.9	7	1.63-1.74	7	7.1-8.1	7	6-7	7
21.3-23.2	8	14.0-14.9	8	1.75-1.86	8	8.2-9.2	8	8-9	8
23.3-25.2	9	15.0-15.9	9	1.87-1.98	9	9.3-10.3	9	10-11	9
25.3-27.2	10	16.0-16.9	10	1.99-2.1	10	10.4-11.4	10	12-13	10

Table III.29 Scored data of Plus Tree and Candidate Plus Trees of *Albizia lebbeck in* Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PANCH/AL/1	7	9	6	6	6	7	10	10
ADAL/AL/1	6	6	8	7	9	10	7	10
ADAL/AL/2	10	10	10	10	10	10	7	10

Table III.30 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Albizia lebbeck* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PANCH/AL/1	10.5	18	12	1.5	1.5	10.5	15	10	79
ADAL/AL/1	9	12	16	1.75	2.25	15	10.5	10	76.5
ADAL/AL/2	15	20	20	2.5	2.5	15	10.5	10	95.5

Table III.31 Class Interval and Respective Scores for Quantitative Traits for *Albizia procera in* Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
22.0-23.4	6	9.0-10.0	6	1.77-1.88	6	8.0-8.6	6	3-4	6
23.5-24.9	7	10.1-11.1	7	1.89-2.00	7	8.7-9.3	7	5-6	7
25.0-26.4	8	11.2-12.2	8	2.10-2.21	8	9.4-10.0	8	7-8	8
26.5-27.9	9	12.3-13.3	9	2.22-2.33	9	10.1-10.7	9	9-10	9
80.0-29.4	10	13.4-14.4	10	2.34-2.45	10	10.8-11.4	10	11-12	10

Table III.32 Scored data of Plus Tree and Candidate Plus Trees of *Albizia procera* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
PANCH/AP/3	**6**	**8**	**6**	**6**	**9**	**10**	**7**	**10**
ADAL/AP/1	8	6	10	6	9	10	10	10
ADAL/AP/2	10	10	8	10	9	10	10	10

*Bol*d text is of Plus Tree

Table III.33 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Albizia procera* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
PANCH/AP/3	9	16	12	1.5	2.25	15	10.5	10	76.25
ADAL/AP/1	12	12	20	1.5	2.25	15	15	10	87.75
ADAL/AP/2	15	20	16	2.5	2.25	15	15	10	95.75

Table III.34 Class Interval and Respective Scores for Quantitative Traits for *Betula alnoides in* Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15-17.9	6	10-11.9	6	1.2-1.7	6	4.8-7.0	6	6-7	6
18-20.9	7	12-13.9	7	1.8-2.3	7	7.1-9.3	7	8-9	7
21-23.9	8	14-15.9	8	2.4-2.9	8	9.4-11.6	8	10-11	8
24-26.9	9	16-17.9	9	3.0-3.5	9	11.7-13.9	9	12-13	9
25-29.9	10	18-19.9	10	3.6-4.1	10	14.0-16.2	10	14-15	10

Table III.35 Scored data of Plus Tree and Candidate Plus Trees of *Betula alnoides* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KUHI/BA/8	9	9	8	7	6	7	10	10
KUHI/BA/9	10	10	9	10	7	10	10	10
RESO/BA/1	7	7	10	7	9	10	7	10
RESO/BA/2	6	7	8	6	6	10	7	10
RESO/BA/3	6	6	7	6	10	7	10	10
RESO/BA/4	6	6	6	6	6	7	10	10
RESO/BA/5	7	6	6	6	7	10	10	10

** Bold text are of Plus Tree*

Table III.36 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Betula alnoides in* Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUHI/BA/8	13.5	18	16	1.75	1.5	10.5	15	10	86.25
KUHI/BA/9	15	20	18	2.5	1.75	15	15	10	97.25
RESO/BA/1	10.5	14	20	1.75	2.25	15	10.5	10	84
RESO/BA/2	9	14	16	1.5	1.5	15	10.5	10	77.5
RESO/BA/3	9	12	14	1.5	2.5	10.5	15	10	74.5
RESO/BA/4	9	12	12	1.5	1.5	10.5	15	10	71.5
RESO/BA/5	10.5	12	12	1.5	1.75	15	15	10	77.75

Table III.37 Class Interval and Respective Scores for Quantitative Traits for *Canarium sikkimensis* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.0-18.6	6	15.0-15.4	6	1.82-1.97	6	4.0-4.6	6	3-4	6
18.7-19.3	7	15.5-15.9	7	1.98-2.13	7	4.7-5.3	7	5-6	7
19.4-20.0	8	16.0-16.4	8	2.14-2.29	8	5.4-6.0	8	7-8	8
20.1-20.7	9	16.5-16.9	9	2.30-2.45	9	6.1-6.7	9	9-10	9
20.8-21.4	10	17.0-17.4	10	2.46-2.61	10	6.8-7.4	10	11-12	10

Table III.38 Scored data of Plus Tree and Candidate Plus Trees of *Canarium sikkimensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/CS/1	10	10	6	6	6	7	10	10
SUKNA/CS/3/2	8	7	10	10	10	7	7	10
SUKNA/CS/1	6	6	8	7	9	10	7	10

* Bold text are of Plus Tree

Table III.39 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Canarium sikkimensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/CS/1	15	20	12	1.5	1.5	10.5	15	10	85.5
SUKNA/CS/3/2	12	14	20	2.5	2.5	10.5	10.5	10	82
SUKNA/CS/1	9	12	16	1.75	2.25	15	10.5	10	76.5

* Bold text are of Plus Tree

Table III.40 Class Interval and Respective Scores for Quantitative Traits for *Chukrasia tabularis* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
21	9	7	9	2.2	9	14	9	7	9
29	10	9	10	3	10	15	10	13	10

Table III.41 Scored data of Plus Trees of *Chukrasia tabularis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MOHO/CT/4	10	10	9	9	9	7	10	10
MOHO/CT/3	9	9	10	10	10	10	10	10

Table III.42 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MOHO/CT/4	15	20	20	2.25	2.25	13.5	10.5	10	93.5
MOHO/CT/3	13.5	18	18	2.5	2.5	15	15	10	94.5

Table III.43 Class Interval and Respective Scores for Quantitative Traits for *Dalbergia cultrate in* Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17	9	5	9	1.6	9	8	9	12	9
18	10	6	10	2	10	7	10	17	10

Table. III.44 Scored data of Plus Trees of *Dalbergia cultrate* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/DC/2	9	10	9	10	9	7	10	10
KYAN/DC/3	10	9	10	9	10	10	10	10

Table III.45 Weightage Score for Each Trait of Plus Trees of *Dalbergia cultrate* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/DC/2	13.5	20	18	2.5	2.25	10.5	15	10	91.75
KYAN/DC/3	15	18	20	2.25	2.5	15	15	10	97.75

Table. III.46 Class Interval and Respective Scores for Quantitative Traits for *Dipterocarpus turbinatus in* Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.5-17.2	6	10.0-12.0	6	2.08-2.10	6	7.5-8.5	6	9-10	6
17.3-19.0	7	12.1-14.1	7	2.11-2.13	7	8.5-9.4	7	11-12	7
19.1-20.8	8	14.2-16.2	8	2.14-2.16	8	9.5-10.4	8	13-14	8
20.9-22.6	9	16.3-18.2	9	2.17-2.19	9	10.5-11.4	9	15.-16	9
22.7-24.4	10	18.3-20.3	10	2.20-2.22	10	11.5-12.4	10	17-18	10

Table III.47 Scored data of Plus Trees of *Dipterocarpus turbinatus in* Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/DT/1	6	6	8	10	9	10	7	10
KYAN/DT/2	10	10	10	6	9	7	10	10
KYAN/DT/3	10	10	6	6	6	7	10	10

Table III.48 Weightage Score for Each Trait of Plus Trees of *Dipterocarpus turbinatus in* Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/DT/1	9	12	16	2.5	2.25	15	10.5	10	77.25
KYAN/DT/2	15	20	20	1.5	2.25	10.5	15	10	94.25
KYAN/DT/3	15	20	12	1.5	1.5	10.5	15	10	85.5

Table III.49 Class Interval and Respective Scores for Quantitative Traits for *Dysoxylum procerum* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17	9	5	9	1.6	9	8.5	9	8	9
20	10	7	10	2	10	14.6	10	9	10

Table III.50 Scored data of Plus Trees of *Dysoxylum procerum* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MOHO/DP/1	9	9	10	10	10	10	7	10
MOHO/DP/2	10	10	9	9	9	7	10	10

Table III.51 Weightage Score for Each Trait of Plus Trees of *Dysoxylum procerum* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MOHO/DP/1	13.5	18	20	2.5	2.5	15	10.5	10	92
MOHO/DP/2	15	20	18	2.25	2.25	10.5	15	10	93

Table III.52 Class Interval and Respective Scores for Quantitative Traits for *Elaeocarpus sikkimensis in* Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
22	9	12	9	2	9	12	9	7	9
24	10	14	10	2.15	10	14	10	14	10

Table III.53 Scored data of Plus Trees of *Elaeocarpus sikkimensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RAMB/ES/1	10	9	10	10	9	7	10	10
RAMB/ES/2	9	10	9	9	10	10	10	10

Table III.54 Weightage Score for Each Trait of Plus Trees of *Elaeocarpus sikkimensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RAMB/ES/1	15	18	20	2.5	2.25	10.5	15	10	93.25
RAMB/ES/2	13.5	20	18	2.25	2.5	15	15	10	96.25

Table III. 55 Class Interval and Respective Scores for Quantitative Traits for *Eriobotrya petiolata* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.8-14.2	6	2.8-4.6	6	0.88-1.06	6	4.8-7.4	6	5-6	6
14.3-15.7	7	4.7-6.5	7	1.07-1.25	7	7.5-10.1	7	7-8	7
15.8-17.2	8	6.6-8.4	8	1.26-1.44	8	10.2-12.8	8	9-10	8
17.3-18.7	9	8.5-10.3	9	1.45-1.63	9	12.9-15.5	9	11-12	9
18.8-20.2	10	10.4-12.2	10	1.64-1.82	10	15.6-18.2	10	13-14	10

Table III.56 Scored data of Plus Trees of *Eriobotrya petiolata* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RAMB/EP/1	8	9	6	8	9	10	10	10
RAMB/EP/3	7	7	7	8	9	7	7	10
RAMB/EP/4	10	10	7	6	7	10	10	10
RAMB/EP/6	20	10	7	7	8	7	7	10
RAMB/EP/7	9	6	10	10	10	10	10	10
RAMB/EP/8	6	8	8	6	8	7	7	10

Table III.57 Weightage Score for Each Trait of Plus Trees of *Eriobotrya petiolata* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RAMB/EP/1	12	18	12	2	2.25	15	15	10	86.25
RAMB/EP/3	10.5	14	14	2	2.25	10.5	10.5	10	73.75
RAMB/EP/4	15	20	14	1.5	1.75	15	15	10	92.25
RAMB/EP/6	30	20	14	1.75	2	10.5	10.5	10	98.75
RAMB/EP/7	13.5	12	20	2.5	2.5	15	15	10	90.5
RAMB/EP/8	9	16	16	1.5	2	10.5	10.5	10	75.5

Table III.58 Class Interval and Respective Scores for Quantitative Traits for *Juglans regia* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-17.6	6	10.-11.9	6	1.08-1.28	6	4.8-6.2	6	6	6
17.7-19.5	7	12-13.9	7	1.29-1.49	7	6.3-7.7	7	7	7
19.6-21.4	8	14-15.9	8	1.50-1.70	8	7.8-9.2	8	8	8
22.5-24.3	9	16-17.9	9	1.71-1.91	9	9.3-10.7	9	9	9
24.4-26.2	10	18-19.9	10	1.92-2.12	10	10.8-12.2	10	10	10

Table III.59 Scored data of Plus Trees and Candidate Plus Trees of *Juglans regia* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RAMB/JR/1	9	10	7	6	6	7	10	10
RAMB/JR/2	9	9	8	7	6	10	10	10
RAMB/JR/3	9	10	8	6	9	7	7	10
RAMB/JR/4	9	9	10	8	9	10	10	10
RAMB/JR/5	10	8	10	10	9	7	7	10
RISO/JR/1	7	6	7	8	8	10	10	10
RISO/JR/2	6	6	6	6	9	10	7	10
RISO/JR/3	6	7	9	7	9	7	10	10

RISO/JR/4	6	6	7	8	6	10	7	10
RISO/JR/5	6	7	7	8	10	7	7	10

** Bold text are of Plus Tree*

Table III.60 Weightage Score for Each Trait of Plus Trees and Candidate Plus Trees of *Juglans regia* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RAMB/JR/1	13.5	20	14	1.5	1.5	10.5	15	10	86
RAMB/JR/2	13.5	18	16	1.75	1.5	15	15	10	90.75
RAMB/JR/3	13.5	20	16	1.5	2.25	10.5	10.5	10	84.25
RAMB/JR/4	13.5	18	20	2	2.25	15	15	10	95.75
RAMB/JR/5	15	16	20	2.5	2.25	10.5	10.5	10	86.75
RISO/JR/1	10.5	12	14	2	2	15	15	10	80.5
RISO/JR/2	9	12	12	1.5	2.25	15	10.5	10	72.25
RISO/JR/3	9	14	18	1.75	2.25	10.5	15	10	80.5
RISO/JR/4	9	12	14	2	1.5	15	10.5	10	74
RISO/JR/5	9	14	14	2	2.5	10.5	10.5	10	72.5

** Bold text are of Plus Tree*

Table III.61 Class Interval and Respective Scores for Quantitative Traits for *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.1-17.2	6	6.3-7.2	6	1.48-1.62	6	7.3-8.0	6	4-5	6
17.3-17.4	7	7.3-8.2	7	1.63-1.77	7	8.1-8.8	7	6-7	7
17.5-17.6	8	8.3-9.2	8	1.78-1.92	8	8.9-9.6	8	8-9	8
17.7-17.8	9	9.3-10.2	9	1.93-2.07	9	9.7-10.4	9	10-11	9
17.9-18.0	10	10.3-11.2	10	2.08-2.22	10	10.5-11.2	10	12-13	10

Table III.62 Scored data of Plus Trees of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/LF/1	10	6	10	10	10	7	10	10
KYAN/LF/2	8	10	6	8	7	7	7	10
PANCH/LF/3	10	8	6	6	8	7	10	10

Table III.63 Weightage Score for Each Trait of Plus Trees of *Lagerstroemia flos reginae in* Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/LF/1	15	12	20	2.5	2.5	10.5	15	10	87.5
KYAN/LF/2	12	20	12	2	1.75	10.5	10.5	10	78.75
PANCH/LF/3	15	16	12	1.5	2	10.5	15	10	82

Table III.64 Class Interval and Respective Scores for Quantitative Traits for *Mesua ferrea* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.8-12.4	6	2.98-3.12	6	1.03-1.10	6	7.8-9.0	6	11	6
12.5-13.1	7	3.13-3.27	7	1.11-1.18	7	9.1-10.3	7	12	7
13.2-13.8	8	3.28-3.42	8	1.19-1.26	8	10.4-11.6	8	13	8
13.9-14.5	9	3.43-3.57	9	1.27-1.34	9	11.7-12.9	9	14	9
14.6-15.2	10	3.58-3.72	10	1.35-1.42	10	13.0-14.2	10	15	10

Table III.65 Scored data of Plus Trees of *Mesua ferrea* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/MF/1	6	10	10	10	10	10	7	10
KYAN/MF/2	7	6	6	9	9	7	7	10
KYAN/MF/3	10	9	10	6	8	7	7	10

Table III.66 Weightage Score for Each Trait of Plus Trees of *Mesua ferrea* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/MF/1	9	20	20	2.5	2.5	15	10.5	10	89.5
KYAN/MF/2	10.5	12	12	2.25	2.25	10.5	10.5	10	70
KYAN/MF/3	15	18	20	1.5	2	10.5	10.5	10	87.5

Table III.67 Class Interval and Respective Scores for Quantitative Traits for *Michelia cathcartii* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.8-20.0	6	8.8-11.0	6	1.04-1.12	6	6.8-8.6	6	8	6
20.1-21.3	7	11.1-13.3	7	1.13-1.21	7	8.7-10.5	7	9	7
21.4-22.6	8	13.4-15.6	8	1.22-1.30	8	10.6-12.4	8	10	8
22.7-23.9	9	15.7-17.9	9	1.31-1.39	9	12.5-14.3	9	11	9
24.0-25.2	10	18.0-20.2	10	1.40-1.48	10	14.4-16.2	10	12	10

Table III.68 Scored data of Plus Trees of *Michelia cathcartii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RESO/MC/9	7	8	7	7	6	10	7	10
RESO/MC/10	10	10	7	6	10	7	7	10
RESO/MC/11	10	10	6	6	9	7	7	10
RESO/MC/12	6	6	10	12	10	10	7	10

Table III.69 Weightage Score for Each Trait of Plus Trees of *Michelia cathcartii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RESO/MC/9	10.5	16	14	1.75	1.5	15	10.5	10	79.25
RESO/MC/10	15	20	14	1.5	2.5	10.5	10.5	10	84
RESO/MC/11	15	20	12	1.5	2.25	10.5	10.5	10	81.75
RESO/MC/12	9	12	20	3	2.5	15	10.5	10	82

Table III.70 Class Interval and Respective Scores for Quantitative Traits for *Michelia champaca* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17-19.2	6	3.3-7.0	6	1.6-1.9	6	7.8-9.6	6	6-7	6
19.3-21.5	7	7.1-10.8	7	2.0-2.3	7	9.7-11.5	7	8-9	7
21.6-23.8	8	10.9-14.6	8	2.4-2.7	8	11.6-13.4	8	10-11	8
23.9-26.1	9	14.7-18.4	9	2.8-3.1	9	13.5-15.3	9	12-13	9
26.2-28.4	10	18.5-22.2	10	3.2-3.5	10	15.4-17.2	10	14-15	10

Table III.71 Scored data of Plus Trees and Candidate Plus Trees of *Michelia champaca* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
HATI/MC/4	6	8	6	6	7	7	10	10
HATI/MC/5	7	9	8	9	7	10	10	10
HATI/MC/6	6	8	7	8	6	7	7	10
MOHO/MC/1	10	10	7	6	6	10	10	10
MOHO/MC/2	10	10	9	10	8	7	7	10
MOHO/MC/3	9	9	7	7	9	10	10	10
ADAL/MC/1	10	6	10	10	10	10	7	10
ADAL/MC/2	10	6	9	9	8	7	10	10

** Bold text are of Plus Tree*

Table III.72 Weightage Score for Each Trait of Plus Trees and Candidate Plus Trees of *Michelia champaca* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
HATI/MC/4	9	16	12	1.5	1.75	10.5	15	10	75.75
HATI/MC/5	10.5	18	16	2.25	1.75	15	15	10	88.5
HATI/MC/6	9	16	14	2	1.5	10.5	10.5	10	73.5
MOHO/MC/1	15	20	14	1.5	1.5	15	15	10	92
MOHO/MC/2	15	20	18	2.5	2	10.5	10.5	10	88.5
MOHO/MC/3	13.5	18	14	1.75	2.25	15	15	10	89.5
ADAL/MC/1	15	12	20	2.5	2.5	15	10.5	10	87.5
ADAL/MC/2	15	12	18	2.25	2	10.5	15	10	84.75

** Bold text are of Plus Tree*

Table III.73 Class Interval and Respective Scores for Quantitative Traits for *Prunus napaulensis* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of BranchesIntervals	Score
26-27.2	6	12-14.4	6	1.06-1.20	6	6-7.2	6	6-7	6
27.3-28.5	7	14.5-16.9	7	1.30-1.44	7	7.3-8.5	7	8-9	7
28.6-29.8	8	17.0-19.4	8	1.45-1.59	8	8.6-9.8	8	10-11	8
29.9-31.1	9	19.5-21.9	9	1.60-1.74	9	9.9-11.1	9	12-13	9
31.2-32.6	10	22.0-24.4	10	1.75-1.89	10	11.2-12.4	10	14-15	10

Table III.74 Scored data of Plus Trees of *Prunus napaulensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RISO/PN/3	10	9	10	10	10	10	7	10
RISO/PN/4	6	6	6	6	6	7	7	10
RISO/PN/5	10	10	7	6	6	7	7	10

Table III.75 Weightage Score for Each Trait of Plus Trees of *Prunus napaulensis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RISO/PN/3	15	18	20	2.5	2.5	15	10.5	10	93.5
RISO/PN/4	9	12	12	1.5	1.5	10.5	10.5	10	67
RISO/PN/5	15	20	14	1.5	1.5	10.5	10.5	10	83

Table III.76 Class Interval and Respective Scores for Quantitative Traits for *Quercus lamellose* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.0-14.6	6	3.0-4.4	6	0.9-1.02	6	6.0-7.4	6	7-9	6
14.7-16.3	7	4.5-5.9	7	1.03-1.15	7	7.5-8.9	7	10-12	7
16.4-18.0	8	6.0-7.4	8	1.16-1.28	8	9.0-10.4	8	13-15	8
18.1-19.7	9	7.5-8.9	9	1.29-1.41	9	10.5-11.9	9	16-18	9
19.8-21.4	10	9.0-10.4	10	1.42-1.54	10	12.0-13.4	10	19-20	10

Table III.77 Scored data of Plus Trees of *Quercus lamellose* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RESO/QL/1	10	8	10	9	10	7	10	10
RESO/QL/2	6	8	7	10	8	7	10	10
RESO/QL/3	9	10	9	10	9	10	7	10
RESO/QL/4	7	9	7	8	7	10	10	10
RESO/QL/5	8	7	8	10	8	7	10	10

Table III.78 Weightage Score for Each Trait of Plus Trees of *Quercus lamellose* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RESO/QL/1	15	16	20	2.25	2.5	10.5	15	10	91.25
RESO/QL/2	9	16	14	2.5	2	10.5	15	10	79
RESO/QL/3	13.5	20	18	2.5	2.25	15	10.5	10	91.75
RESO/QL/4	10.5	18	14	2	1.75	15	15	10	86.25
RESO/QL/5	12	14	16	2.5	2	10.5	15	10	82

Table III.79 Class Interval and Respective Scores for Quantitative Traits for *Quercus pachyphylla* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16-18	6	3-6.2	6	1.29-1.55	6	8-10.4	6	11-13	6
18.1-20.1	7	6.3-9.5	7	1.56-1.82	7	10.5-12.9	7	14-16	7
20.2-22.2	8	9.6-12.8	8	1.83-2.09	8	13.0-15.4	8	17-19	8
22.3-24.3	9	12-16.1	9	2.10-2.36	9	15.5-17.9	9	20-22	9
24.4-26.4	10	16.2-19.4	10	2.37-2.63	10	18.0-20.4	10	23-25	10

Table III.80 Scored data of Plus Trees and Candidate Plus Trees of *Quercus pachyphylla* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RESO/QP/1	6	7	7	8	7	7	10	10
RESO/QP/2	8	6	9	10	9	10	10	10
RESO/QP/3	6	8	7	6	10	7	10	10
RESO/QP/4	8	6	10	8	10	10	7	10
RESO/QP/5	8	6	8	10	8	10	10	10
RAMB/QP/4	9	10	6	8	7	10	7	10
RAMB/QP/5	7	8	9	10	7	7	10	10
RESO/QP/1	10	8	7	7	8	10	7	10
RESO/QP/2	7	9	6	6	6	7	10	10
RESO/QP/3	8	10	6	6	7	7	10	10

** Bold text are of Plus Tree*

Table III.81 Weightage Score for Each Trait of Plus Trees and Candidate Plus Trees of *Quercus pachyphylla* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RESO/QP/1	9	14	14	2	1.75	10.5	15	10	76.25
RESO/QP/2	12	12	18	2.5	2.25	15	15	10	86.75
RESO/QP/3	9	16	14	1.5	2.5	10.5	15	10	78.5
RESO/QP/4	12	12	20	2	2.5	15	10.5	10	84
RESO/QP/5	12	12	16	2.5	2	15	15	10	84.5
RAMB/QP/4	13.5	20	12	2	1.75	15	10.5	10	84.75
RAMB/QP/5	10.5	16	18	2.5	1.75	10.5	15	10	84.25
RESO/QP/1	15	16	14	1.75	2	15	10.5	10	84.25
RESO/QP/2	10.5	18	12	1.5	1.5	10.5	15	10	79
RESO/QP/3	12	20	12	1.5	1.75	10.5	15	10	82.75

** Bold text are of Plus Tree*

Table III.82 Class Interval and Respective Scores for Quantitative Traits for *Schima wallichii* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
22-23.2	6	3.5-7.2	6	1.81-2.04	6	6-7.2	6	4-6	6
23.3-24.5	7	7.3-11.0	7	2.05-2.28	7	7.3-8.5	7	7-9	7
24.6-25.8	8	11.1-14.8	8	2.29-2.52	8	8.6-9.8	8	10-12	8
25.9-27.1	9	14.9-18.6	9	2.53-2.76	9	9.9-11.1	9	13-15	9
27.2-28.4	10	18.7-22.4	10	2.77-3.00	10	11.2-12.4	10	16-18	10

Table III.83 Scored data of Plus Trees and Candidate Plus Trees of *Schima wallichii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MOHO/SW/1	9	10	7	10	7	7	10	10
KUHI/SW/1	9	10	9	6	6	10	10	10
KUHI/SW/2	10	10	6	6	6	7	10	10
ADAL/SW/1	7	6	9	8	10	10	7	10
ADAL/SW/2	6	6	10	6	8	10	10	10

** Bold text are of Plus Tree*

Table III.84 Weightage Score for Each Trait of Plus Trees and Candidate Plus Trees of *Schima wallichii* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MOHO/SW/1	13.5	20	14	2.5	1.75	10.5	15	10	87.25
KUHI/SW/1	13.5	20	18	1.5	1.5	15	15	10	94.5
KUHI/SW/2	15	20	12	1.5	1.5	10.5	15	10	85.5
ADAL/SW/1	10.5	12	18	2	2.5	15	10.5	10	80.5
ADAL/SW/2	9	12	20	1.5	2	15	15	10	84.5

** Bold text are of Plus Tree*

Table III.85 Class Interval and Respective Scores for Quantitative Traits for *Swietenia mahogany* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15-15.6	6	5.0-6.0	6	1.91-2.05	6	2.7-5.96	6	6-7	6
15.7-16.3	7	6.1-7.1	7	2.06-2.20	7	5.97-9.23	7	8-9	7
16.4-17.0	8	7.2-8.2	8	2.21-2.35	8	9.24-12.5	8	10-11	8
17.1-17.7	9	8.3-9.4	9	2.36-2.50	9	12.6-15.86	9	12-13	9
17.8-18.4	10	9.5-10.5	10	2.51-2.65	10	15.87-19.13	10	14-15	10

Table III.86 Scored data of Plus Trees of *Swietenia mahogany* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/SM/1	6	6	10	10	9	10	7	10
SUKNA/SM/2	10	10	6	6	7	7	7	10
SUKNA/SM/3	7	8	6	6	6	7	7	10

Table III.87 Weightage Score for Each Trait of Plus Trees of *Swietenia mahogany* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/SM/1	9	12	20	2.5	2.25	15	10.5	10	81.25
SUKNA/SM/2	15	20	12	1.5	1.75	10.5	10.5	10	81.25
SUKNA/SM/3	10.5	16	12	1.5	1.5	10.5	10.5	10	72.5

Table III.88 Class Interval and Respective Scores for Quantitative Traits for *Tectona grandis* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
21.5	9	4	9	2.25	9	7	9	8	9
26	10	7	10	2.7	10	9	10	15	10

Table III.89 Scored data of Plus Trees of *Tectona grandis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CHAM/TG/9	10	9	9	10	10	10	10	10
CHAM/TG/10	9	10	10	9	9	7	10	10

Table III.90 Weightage Score for Each Trait of Plus Trees of *Tectona grandis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CHAM/TG/9	15	18	18	2.5	2.5	15	15	10	96
CHAM/TG/10	13.5	20	20	2.25	2.25	10.5	15	10	93.5

Table III.91 Class Interval and Respective Scores for Quantitative Traits for *Terminalia crenulata* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
22-23.2	6	4-6.8	6	1.4-1.59	6	5.0-6.3	6	5-6	6
23.3-24.5	7	6.9-9.7	7	1.60-1.79	7	6.4-7.7	7	7-8	7
24.6-25.8	8	9.8-12.6	8	1.80-1.99	8	7.8-9.1	8	9-10	8
25.9-27.1	9	12.7-15.5	9	2.0-2.19	9	9.2-10.5	9	11-12	9
27.2-28.4	10	15.6-18.4	10	2.20-2.39	10	10.6-11.9	10	13-14	10

Table III.92 Scored data of Plus Tree and Candidate Plus Trees of *Terminalia crenulata* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CHAM/TT/1	10	6	10	8	8	7	10	10
CHAM/TT/2	8	6	8	6	7	10	10	10
CHAM/TT/3	9	10	6	6	8	7	10	10
SUKNA/TT/1	6	8	10	10	10	10	7	10

** Bold text are of Plus Tree*

Table III.93 Weightage Score for Each Trait of Plus Tree and Candidate Plus Trees of *Terminalia crenulata* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CHAM/TT/1	15	12	20	2	2	10.5	15	10	86.5
CHAM/TT/2	12	12	16	1.5	1.75	15	15	10	83.25
CHAM/TT/3	13.5	20	12	1.5	2	10.5	15	10	84.5
SUKNA/TT/1	9	16	20	2.5	2.5	15	10.5	10	85.5

** Bold text are of Plus Tree*

Table III.94 Class Interval and Respective Scores for Quantitative Traits for *Terminalia myriocarpa* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
21	9	5.5	9	2.4	9	11	9	6	9
25	10	16	10	4.3	10	16	10	9	10

Table III.95 Scored data of Plus Trees of *Terminalia myriocarpa* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KUHI/TM/6	10	9	10	10	10	10	10	10
KUHI/TM/7	9	10	9	9	9	7	10	10

Table III.96 Weightage Score for Each Trait of Plus Trees of *Terminalia myriocarpa* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUHI/TM/6	15	18	20	2.5	2.5	15	15	10	98
KUHI/TM/7	13.5	20	18	2.25	2.25	10.5	15	10	91.5

Table III.97 Class Interval and Respective Scores for Quantitative Traits for *Tsuga brunoniana* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
	9	12	9		9	9	9	17	9
28	10	20	10	1.9	10	10	10	36	10

Table III.98 Scored data of Plus Trees of *Tsuga brunoniana* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
SONA/TD/1	10	10	10	10	9	10	10	10
SONA/TD/2	10	9	10	9	10	7	10	10

Table III.99 Weightage Score for Each Trait of Plus Trees of *Tsuga brunoniana* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
SONA/TD/1	15	20	20	2.5	2.25	15	15	10	99.75
SONA/TD/2	15	18	20	2.25	2.5	10.5	15	10	93.25

Table III.100 Class Interval and Respective Scores for Quantitative Traits for *Xylia dolabriformis* in Darjeeling Wildlife Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
	9	14	9	2.35	9	7.8	9	9	9
22	10	15	10	2.50	10	11	10	12	10

Table III.101 Scored data of Plus Trees of *Xylia dolabriformis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KYAN/XD/1	10	10	9	10	10	10	10	10
KYAN/XD/2	10	9	10	9	9	7	10	10

Table III.102 Weightage Score for Each Trait of Plus Trees of *Xylia dolabriformis* in Darjeeling Wildlife Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KYAN/XD/1	15	20	18	2.5	2.5	15	15	10	98
KYAN/XD/2	15	18	20	2.25	2.25	10.5	15	10	93

Table III.103 Class Interval and Respective Scores for Quantitative Traits for *Acer campbellii* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.8-13.4	6		6	0.78-1.24	6	3.8-4.6	6	5	6
13.5-14.1	7		7	1.25-1.71	7	4.7-5.5	7	6	7
14.2-14.8	8		8	1.72-2.18	8	5.6-6.4	8	7	8
14.9-15.5	9		9	2.19-2.65	9	6.5-7.3	9	8	9
15.6-16.2	10	7	10	2.66-3.12	10	7.4-8.2	10	9	10

Table III.104 Scored data of Plus Trees of *Acer campbellii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KOLB/AC/10	6	10	6	4	6	10	7	10
KOLB/AC/11	9	10	7	8	10	10	10	10
LAVA/AC/12	10	10	10	8	10	10	7	10

Table III.105 Weightage Score for Each Trait of Plus Trees of *Acer campbellii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KOLB/AC/10	9	20	12	1	1.5	15	10.5	10	79
KOLB/AC/11	13.5	20	14	2	2.5	15	15	10	92
LAVA/AC/12	15	20	20	2	2.5	15	10.5	10	95

Table III.106 Class Interval and Respective Scores for Quantitative Traits for *Ailanthus grandis* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
20.8-22.6	6	14.8-16.6	6	1.83-2.02	6	4.8-5.2	6	5-6	6
22.7-24.5	7	16.7-18.5	7	2.03-2.22	7	5.3-5.7	7	7-8	7
24.6-26.4	8	18.6-20.4	8	2.23-2.42	8	5.8-6.2	8	9-10	8
26.5-28.3	9	20.5-22.3	9	2.43-2.62	9	6.3-6.7	9	11-12	9
28.4-30.2	10	22.4-24.2	10	2.63-2.82	10	6.8-7.2	10	13-14	10

Table III.107 Scored data of Plus Trees of *Ailanthus grandis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/AG/3	7	8	6	6	10	10	7	10
MAL/AG/4	8	9	9	8	9	10	10	10
TASHI/AG/1	6	6	7	8	6	10	7	10
CHURA/AG/1	10	6	8	10	6	10	7	10
CHURA/AG/2	10	10	10	6	6	10	7	10

Table III.108 Weightage Score for Each Trait of Plus Trees of *Ailanthus grandis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/AG/3	10.5	16	12	1.5	2.5	15	10.5	10	78
MAL/AG/4	12	18	18	2	2.25	15	15	10	92.25
TASHI/AG/1	9	12	14	2	1.5	15	10.5	10	74
CHURA/AG/1	15	12	16	2.5	1.5	15	10.5	10	82.5
CHURA/AG/2	15	20	20	1.5	1.5	15	10.5	10	93.5

Table III.109 Class Interval and Respective Scores for Quantitative Traits for *Amoora wallichii* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
19.8-21.4	6	14.8-16.8	6	2.63-2.80	6	3.8-5.0	6	5-7	**6**
21.5-23.1	7	16.9-18.9	7	2.81-2.98	7	5.1-6.3	7	8-10	**7**
23.2-24.8	8	19.0-21.0	8	2.99-3.16	8	6.4-7.6	8	11-13	**8**
24.9-26.5	9	21.1-23.1	9	3.17-3.34	9	7.7-8.9	9	14-16	**9**
26.6-28.2	10	23.2-25.2	10	3.35-3.52	10	9.0-10.2	10	17-19	**10**

Table III.110 Scored data of Plus Trees of *Amoora wallichii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/AW/3	10	10	6	10	10	10	10	10
MAL/AW/1	6	6	10	10	9	10	10	10
MAL/AW/2	10	7	6	6	6	7	7	10

Table III.111 Weightage Score for Each Trait of Plus Trees of *Amoora wallichii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/AW/3	15	20	12	2.5	2.5	15	15	10	92
MAL/AW/1	9	12	20	2.5	2.25	15	15	10	85.75
MAL/AW/2	15	14	12	1.5	1.5	10.5	10.5	10	75

Table III.112 Class Interval and Respective Scores for Quantitative Traits for *Beilschmiedia roxburghiana* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.8-21.2	6	6.8-9.4	6	2.18-2.47	6	8.8-10.6	6	6-8	6
21.3-23.7	7	9.5-12.1	7	2.48-2.77	7	10.7-12.5	7	9-11	7
23.8-26.2	8	12.2-14.8	8	2.78-3.07	8	12.6-14.4	8	12-14	8
26.3-28.7	9	14.9-17.5	9	3.08-3.37	9	14.5-16.3	9	15-17	9
28.8-31.2	10	17.6-20.2	10	3.38-3.67	10	16.4-18.2	10	18-20	10

Table III.113 Scored data of Plus Trees of *Beilschmiedia roxburghiana* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
LAVA/BR/3	10	10	10	6	7	10	7	10
LAVA/BR/4	8	9	9	9	7	7	7	10
PAKT/BR/1	6	9	6	7	6	7	7	10
PAKT/BR/2	6	6	8	7	9	10	10	10
PAKT/BR/4	6	6	6	10	10	10	10	10

Table III.114 Weightage Score for Each Trait of Plus Trees of *Beilschmiedia roxburghiana* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
LAVA/BR/3	15	20	20	1.5	1.75	15	10.5	10	93.75
LAVA/BR/4	12	18	18	2.25	1.75	10.5	10.5	10	83
PAKT/BR/1	9	18	12	1.75	1.5	10.5	10.5	10	73.25
PAKT/BR/2	9	12	16	1.75	2.25	15	15	10	81
PAKT/BR/4	9	12	12	2.5	2.5	15	15	10	78

Table III.115 Class Interval and Respective Scores for Quantitative Traits for *Betula alnoides* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-18.4	6	9.8-10.9	6	1.23-1.56	6	4.8-7.0	6	6	6
18.5-19.1	7	11.0-12.1	7	1.57-1.90	7	7.1-9.3	7	7	7
19.2-19.8	8	12.2-13.3	8	1.91-2.24	8	9.4-11.6	8	8	8
19.9-20.5	9	13.4-14.5	9	2.25-2.58	9	11.7-13.9	9	9	9
20.6-21.2	10	14.6-15.7	10	2.59-2.92	10	14.0-16.2	10	10	10

Table III.116 Scored data of Plus Trees of *Betula alnoides* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KAFF/BA/7	6	7	6	6	8	10	7	10
DULAP/BA/2	10	10	9	6	10	10	7	10
DULAP/BA/3	9	6	10	10	6	10	7	10

Table III.117 Weightage Score for Each Trait of Plus Trees of *Betula alnoides* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KAFF/BA/7	9	14	12	1.5	2	15	10.5	10	74
DULAP/BA/2	15	20	18	1.5	2.5	15	10.5	10	92.5
DULAP/BA/3	13.5	12	20	2.5	1.5	15	10.5	10	85

Table III.118 Class Interval and Respective Scores for Quantitative Traits for *Bischofia javanica* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
8	9	2	9	1.53	9	5	9	8	9
10	10	3	10	1.9	10	6	10	15	10

Table III.119 Scored data of Plus Trees of *Bischofia javanica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/BJ/1	10	9	10	9	10	7	10	10
MAL/BJ/2	9	10	9	10	9	7	10	10

Table III.120 Weightage Score for Each Trait of Plus Trees of *Bischofia javanica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/BJ/1	15	18	20	2.25	2.5	10.5	15	10	93.25
MAL/BJ/2	13.5	20	18	2.5	2.25	10.5	15	10	91.75

Table III.121 Class Interval and Respective Scores for Quantitative Traits for *Chukrasia tabularis* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
23	9	4	9	2.65	9	7	9	9	9
26	10	6	10	3.85	10	8	10	20	10

Table III.122 Scored data of Plus Trees of *Chukrasia tabularis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
CHUR/CT/1	9	10	9	10	9	10	10	10
MAL/CT/1	10	9	10	9	10	10	10	10

Table III.123 Weightage Score for Each Trait of Plus Trees of *Chukrasia tabularis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
CHUR/CT/1	13.5	20	18	2.5	2.25	15	15	10	96.25
MAL/CT/1	15	18	20	2.25	2.5	15	15	10	97.75

Table III.124 Class Interval and Respective Scores for Quantitative Traits for *Duabanga indica* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16.3-18.0	6	4.8-7.0	6	1.78-1.92	6	3.8-5.8	6	4	6
18.1-19.8	7	7.1-9.3	7	1.93-2.07	7	5.9-7.9	7	5	7
19.9-21.6	8	9.4-11.6	8	2.08-2.22	8	8.0-10.0	8	6	8
21.7-23.4	9	11.7-13.9	9	2.23-2.37	9	10.1-12.1	9	7	9
23.5-25.2	10	14.0-16.2	10	2.38-2.52	10	12.2-14.2	10	8	10

Table III.125 Scored data of Plus Trees of *Duabanga indica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
TASHI/DI/3	6	6	10	8	10	10	7	10
BHAL/DI/1	6	8	6	7	7	10	7	10
MAL/DI/7	8	10	10	6	5	10	10	10
KHUM/DI/1	9	7	9	8	9	7	10	10
KHUM/DI/2	10	6	9	10	6	7	7	10

Table III.126 Weightage Score for Each Trait of Plus Trees of *Duabanga indica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
TASHI/DI/3	9	12	20	2	2.5	15	10.5	10	81
BHAL/DI/1	9	16	12	1.75	1.75	15	10.5	10	76
MAL/DI/7	12	20	20	1.5	1.25	15	15	10	94.75
KHUM/DI/1	13.5	14	18	2	2.25	10.5	15	10	85.25
KHUM/DI/2	15	12	18	2.5	1.5	10.5	10.5	10	80

Table III.127 Class Interval and Respective Scores for Quantitative Traits for *Dysoxylun procerun* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-19.4	6	1.8-2.4	6	1.58-1.76	6	5.8-7.0	6	6	6
19.5-21.1	7	2.5-3.1	7	1.77-1.95	7	7.1-8.3	7	7	7
21.2-22.8	8	3.2-3.8	8	1.96-2.14	8	8.4-9.6	8	8	8
22.9-24.5	9	3.9-4.5	9	2.15-2.33	9	9.7-10.9	9	9	9
24.6-26.2	10	4.6-5.2	10	2.34-2.52	10	11.0-12.2	10	10	10

Table III.128 Scored data of Plus Trees of *Dysoxylum procerum* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/DP/1	7	7	7	9	10	7	7	10
MAL/DP/2	6	9	10	7	9	7	7	10
MAL/DP/3	7	6	9	7	7	10	10	10
MAL/DP/4	7	10	6	6	8	7	10	10
MAL/DP/5	6	7	6	6	9	7	10	10
MAL/DP/6	10	9	9	10	10	7	7	10

Table III.129 Weightage Score for Each Trait of Plus Trees of *Dysoxylum procerum* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/DP/1	10.5	14	14	2.25	2.5	10.5	10.5	10	74.25
MAL/DP/2	9	18	20	1.75	2.25	10.5	10.5	10	82
MAL/DP/3	10.5	12	18	1.75	1.75	15	15	10	84
MAL/DP/4	10.5	20	12	1.5	2	10.5	15	10	81.5
MAL/DP/5	9	14	12	1.5	2.25	10.5	15	10	74.25
MAL/DP/6	15	18	18	2.5	2.5	10.5	10.5	10	87

Table III.130 Class Interval and Respective Scores for Quantitative Traits for *Gmelina arborea* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.8-13.2	6	5.3-6.3	6	1.93-2.00	6	5.8-6.0	6	3-4	6
13.3-13.7	7	6.4-7.4	7	2.01-2.08	7	6.1-6.3	7	5-6	7
13.8-14.2	8	7.5-8.5	8	2.09-2.16	8	6.4-6.6	8	7-8	8
14.3-14.7	9	8.6-9.6	9	2.17-2.24	9	6.7-6.9	9	9-10	9
14.8-15.2	10	9.7-10.7	10	2.25-2.32	10	7.0-7.2	10	11-12	10

Table III.131 Scored data of Plus Trees of *Gmelina arborea* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DAMD/GA/1	6	6	10	10	9	7	7	10
DAMD/GA/2	9	10	8	6	8	10	7	10
DAMD/GA/4	10	10	6	6	8	10	7	10
DAMD/GA/5	8	8	6	10	6	7	7	10

Table III.132 Weightage Score for Each Trait of Plus Trees of *Gmelina arborea* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DAMD/GA/1	9	12	20	2.5	2.25	10.5	10.5	10	76.75
DAMD/GA/2	13.5	20	16	1.5	2	15	10.5	10	88.5
DAMD/GA/4	15	20	12	1.5	2	15	10.5	10	86
DAMD/GA/5	12	16	12	2.5	1.5	10.5	10.5	10	75

Table III.133 Class Interval and Respective Scores for Quantitative Traits for *Juglans regia* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
17	9	4.5	9	1.8	9	6	9	10	9
21	10	15	10	2	10	8	10	12	10

Table III.134 Scored data of Plus Trees of *Juglans regia* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
RAMD/JR/6	9	9	9	10	10	10	7	10
RAMD/JR/7	10	10	10	9	9	10	7	10

Table III.135 Weightage Score for Each Trait of Plus Trees of *Juglans regia* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
RAMD/JR/6	13.5	18	18	2.5	2.5	15	10.5	10	90
RAMD/JR/7	15	20	20	2.25	2.25	15	10.5	10	95

Table III.136 Class Interval and Respective Scores for Quantitative Traits for *Lagerstroemia hypoleuca* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-18.8	6	4.8-6.8	6	1.73-1.78	6	5.8-6.2	6	7	6
18.9-19.9	7	6.9-8.9	7	1.79-1.84	7	6.3-6.7	7	8	7
20.0-21.0	8	9.0-11.0	8	1.85-1.90	8	6.8-7.2	8	9	8
21.1-22.1	9	11.1-13.1	9	1.91-1.96	9	7.3-7.7	9	10	9
22.2-23.2	10	13.2-15.2	10	1.97-2.02	10	7.8-8.2	10	11	10

Table III.137 Scored data of Plus Trees of *Lagerstroemia hypoleuca* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/LH/1	6	9	8	6	6	10	7	10
MAL/LH/2	10	6	10	10	10	10	7	10
MAL/LH/3	8	10	6	6	10	10	7	10

Table III.138 Weightage Score for Each Trait of Plus Trees of *Lagerstroemia hypoleuca* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/LH/1	9	18	16	1.5	1.5	15	10.5	10	81.5
MAL/LH/2	15	12	20	2.5	2.5	15	10.5	10	87.5
MAL/LH/3	12	20	12	1.5	2.5	15	10.5	10	83.5

Table III.139 Class Interval and Respective Scores for Quantitative Traits for *Michelia cathcartii* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.8-16.2	6	4.8-5.8	6	1.88-2.05	6	7.8-10.2	6	12-13	6
16.3-18.7	7	5.9-6.9	7	2.06-2.23	7	10.3-12.7	7	14-15	7
18.8-21.2	8	7.0-8.0	8	2.24-2.41	8	12.8-15.2	8	16-17	8
21.3-23.7	9	8.1-9.1	9	2.42-2.59	9	15.3-17.7	9	18-19	9
23.8-26.2	10	9.2-10.2	10	2.60-2.77	10	17.8-20.2	10	20-21	10

Table III.140 Scored data of Plus Trees of *Michelia cathcartii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
LAVA/MC/6	10	10	10	10	10	10	10	10
PAKT/MC/4	6	6	6	6	6	10	10	10
PAKT/MC/5	8	6	6	9	7	10	7	10

Table III.141 Weightage Score for Each Trait of Plus Trees of *Michelia cathcartii* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
LAVA/MC/6	15	20	20	2.5	2.5	15	15	10	100
PAKT/MC/4	9	12	12	1.5	1.5	15	15	10	76
PAKT/MC/5	12	12	12	2.25	1.75	15	10.5	10	75.5

Table III.142 Class Interval and Respective Scores for Quantitative Traits for *Michelia lanuginose* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.8-19.0	6	1.8-2.5	6	1.63-1.70	6	3.8-5.4	6	7-8	6
19.1-19.3	7	2.6-3.3	7	1.71-1.78	7	5.5-7.1	7	9-10	7
19.4-19.6	8	3.4-4.1	8	1.79-1.86	8	7.2-8.8	8	11-12	8
19.7-19.9	9	4.2-4.9	9	1.87-1.94	9	8.9-10.5	9	13-14	9
20.0-20.2	10	5.0-5.7	10	1.95-2.02	10	10.6-12.2	10	15-16	10

Table III.143 Scored data of Plus Trees of *Michelia lanuginose* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
LAVA/ML/3	6	10	6	6	10	10	10	10
LAVA/ML/4	6	10	6	9	6	10	7	10
LAVA/ML/6	10	6	10	10	8	10	10	10

Table III.144 Weightage Score for Each Trait of Plus Trees of *Michelia lanuginose* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
LAVA/ML/3	9	20	12	1.5	2.5	15	15	10	85
LAVA/ML/4	9	20	12	2.25	1.5	15	10.5	10	80.25
LAVA/ML/6	15	12	20	2.5	2	15	15	10	91.5

Table III.145 Class Interval and Respective Scores for Quantitative Traits for *Nyssa javanica* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-17.2	6	9.8-11.0	6	1.43-1.68	6	3.8-4.8	6	5-6	6
17.3-18.7	7	11.1-12.3	7	1.69-1.94	7	4.9-5.9	7	7-8	7
18.8-20.2	8	12.4-13.6	8	1.95-2.20	8	6.0-7.0	8	9-10	8
20.3-21.7	9	13.7-14.9	9	2.21-2.46	9	7.1-8.1	9	11-12	9
21.8-23.2	10	15.0-16.2	10	2.47-2.72	10	8.2-9.2	10	13-14	10

Table III.146 Scored data of Plus Trees of *Nyssa javanica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KOLB/NJ/10	10	7	10	9	10	10	10	10
PEML/NJ/7	8	10	7	6	6	7	7	10
PEML/NJ/8	9	10	6	10	8	10	10	10
LAVA/NJ/9	9	6	8	9	7	7	7	10
LAVA/NJ/10	6	6	6	9	7	10	7	10

Table III.147 Weightage Score for Each Trait of Plus Trees of *Nyssa javanica* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KOLB/NJ/10	15	14	20	2.25	2.5	15	15	10	93.75
PEML/NJ/7	12	20	14	1.5	1.5	10.5	10.5	10	80
PEML/NJ/8	13.5	20	12	2.5	2	15	15	10	90
LAVA/NJ/9	13.5	12	16	2.25	1.75	10.5	10.5	10	76.5
LAVA/NJ/10	9	12	12	2.25	1.75	15	10.5	10	72.5

Table III.148 Class Interval and Respective Scores for Quantitative Traits for *Phoebe attenuate* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
14.8-15.0	6	3.8-4.2	6	1.38-1.50	6	6.8-7.4	6	6-7	6
15.1-15.3	7	4.3-4.7	7	1.51-1.63	7	7.5-8.1	7	8-9	7
15.4-15.6	8	4.8-5.2	8	1.64-1.76	8	8.2-8.8	8	10-11	8
15.7-15.9	9	5.3-5.7	9	1.77-1.89	9	8.9-9.5	9	12-13	9
16.0-16.2	10	5.8-6.2	10	1.90-2.02	10	9.6-10.2	10	14-15	10

Table III.149 Scored data of Plus Trees of *Phoebe attenuate* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAL/PA/1	10	10	10	10	10	10	10	10
MAL/PA/2	10	6	8	6	6	7	7	10
MAL/PA/3	6	8	6	7	9	10	7	10

Table III.150 Weightage Score for Each Trait of Plus Trees of *Phoebe attenuate* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAL/PA/1	15	20	20	2.5	2.5	15	15	10	100
MAL/PA/2	15	12	16	1.5	1.5	10.5	10.5	10	77
MAL/PA/3	9	16	12	1.75	2.25	15	10.5	10	76.5

Table III.151 Class Interval and Respective Scores for Quantitative Traits for *Pinus petula* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.8-15.4	6	9.8-10.2	6	1.43-1.76	6	5.8-7.4	6	8-9	6
15.5-17.1	7	10.3-10.7	7	1.77-2.10	7	7.5-9.1	7	10-11	7
17.2-18.8	8	10.8-11.2	8	2.11-2.44	8	9.2-10.8	8	12-13	8
18.9-20.5	9	11.3-11.7	9	2.45-2.78	9	10.9-12.5	9	14-15	9
20.6-22.2	10	11.8-12.2	10	2.79-3.12	10	12.6-14.2	10	16-17	10

Table III.152 Scored data of Plus Trees of *Pinus petula* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
LAVA/PP/1	10	6	10	10	10	10	10	10
LAVA/PP/2	9	10	6	10	9	10	10	10
LAVA/PP/3	10	8	6	6	6	10	7	10
BOKH/PP/4	6	8	6	6	8	10	7	10
BOKH/PP/5	6	8	6	6	6	10	7	10

Table III.153 Weightage Score for Each Trait of Plus Trees of *Pinus petula* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
LAVA/PP/1	15	12	20	2.5	2.5	15	15	10	92
LAVA/PP/2	13.5	20	12	2.5	2.25	15	15	10	90.25
LAVA/PP/3	15	16	12	1.5	1.5	15	10.5	10	81.5
BOKH/PP/4	9	16	12	1.5	2	15	10.5	10	76
BOKH/PP/5	9	16	12	1.5	1.5	15	10.5	10	75.5

Table III.154 Class Interval and Respective Scores for Quantitative Traits for *Prunus napaulensis* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
	6		6		6		6		6
	7		7		7		7		7
	8		8		8		8		8
22	9	14	9	1.3	9	6	9	8	9
23	10	16	10	1.45	10	8	10	10	10

Table III.155 Scored data of Plus Trees of *Prunus napaulensis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
DAMS/PN/1	9	9	9	9	9	10	10	10
DAMS/PN/2	10	10	10	10	10	10	10	10

Table III.156 Weightage Score for Each Trait of Plus Trees of *Prunus napaulensis* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
DAMS/PN/1	13.5	18	18	2.25	2.25	15	15	10	94
DAMS/PN/2	15	20	20	2.5	2.5	15	15	10	100

Table III.157 Class Interval and Respective Scores for Quantitative Traits for *Quercus lamellose* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-17.0	6	2.3-3.8	6	2.08-2.44	6	6.8-9.0	6	6-8	6
17.1-18.3	7	3.9-5.4	7	2.45-2.81	7	9.1-11.3	7	9-11	7
18.4-19.6	8	5.5-7.0	8	2.82-3.18	8	11.4-13.6	8	12-14	8
19.7-20.9	9	7.1-8.6	9	3.19-3.55	9	13.7-15.9	9	15-17	9
21.0-22.2	10	8.7-10.2	10	3.56-3.92	10	16.0-18.2	10	18-20	10

Table III.158 Scored data of Plus Trees of *Quercus lamellose* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KOLB/QL/6	7	9	10	7	6	10	10	10
KOLB/QL/7	6	10	6	6	8	10	10	10
PAKT/QL/6	10	6	9	8	9	10	7	10
PAKT/QL/7	7	7	9	10	10	10	10	10

Table III.159 Weightage Score for Each Trait of Plus Trees of *Quercus lamellose* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KOLB/QL/6	10.5	18	20	1.75	1.5	15	15	10	91.75
KOLB/QL/7	9	20	12	1.5	2	15	15	10	84.5
PAKT/QL/6	15	12	18	2	2.25	15	10.5	10	84.75
PAKT/QL/7	10.5	14	18	2.5	2.5	15	15	10	87.5

Table III.160 Class Interval and Respective Scores for Quantitative Traits for *Quercus lineata* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.8-15.2	6	3.8-5.0	6	1.23-1.45	6	5.8-7.4	6	7-8	6
15.3-16.7	7	5.1-6.3	7	1.46-1.68	7	7.5-9.1	7	9-10	7
16.8-18.2	8	6.4-7.6	8	1.69-1.91	8	9.2-10.8	8	11-12	8
18.3-19.7	9	7.7-8.9	9	1.92-2.14	9	10.9-12.5	9	13-14	9
19.8-21.2	10	9.0-10.2	10	2.15-2.37	10	12.6-14.2	10	15-16	10

Table III.161 Scored data of Plus Trees of *Quercus lineata* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KOLB/QL/4	10	10	10	10	10	10	10	10
KOLB/QL/5	6	9	6	6	6	7	10	10
RACH/QL/2	6	6	7	8	8	10	7	10
RACH/QL/3	10	6	7	10	10	10	10	10

Table III.162 Weightage Score for Each Trait of Plus Trees of *Quercus lineata* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KOLB/QL/4	15	20	20	2.5	2.5	15	15	10	100
KOLB/QL/5	9	18	12	1.5	1.5	10.5	15	10	77.5
RACH/QL/2	9	12	14	2	2	15	10.5	10	74.5
RACH/QL/3	15	12	14	2.5	2.5	15	15	10	86

Table III.163 Class Interval and Respective Scores for Quantitative Traits for *Terminalia crenulata* in Kalimpong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.8-20.0	6	3.8-5.4	6	1.27-1.43	6	3.8-4.2	6		6
20.1-21.3	7	5.5-7.1	7	1.44-1.60	7	4.3-4.7	7	6	7
21.4-22.6	8	7.2-8.8	8	1.61-1.77	8	4.8-5.2	8	7	8
22.7-23.9	9	8.9-10.5	9	1.78-1.94	9	5.3-5.7	9	8	9
24.0-25.2	10	10.6-12.2	10	1.95-2.11	10	5.8-6.2	10	9	10

Table III.164 Scored data of Plus Trees of *Terminalia crenulata* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KHUM/TT/1	6	6	10	6	10	7	7	10
KHUM/TT/2	8	10	8	5	7	10	7	10
KHUM/TT/3	10	6	8	6	7	7	10	10
KHUM/TT/4	9	7	10	5	9	10	10	10
KHUM/TT/5	6	10	6	7	10	10	7	10
KHUM/TT/6	6	6	6	4	7	7	7	10

Table III.165 Weightage Score for Each Trait of Plus Trees of *Terminalia crenulata* in Kalimpong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KHUM/TT/1	9	12	20	1.5	2.5	10.5	10.5	10	76
KHUM/TT/2	12	20	16	1.25	1.75	15	10.5	10	86.5
KHUM/TT/3	15	12	16	1.5	1.75	10.5	15	10	81.75
KHUM/TT/4	13.5	14	20	1.25	2.25	15	15	10	91
KHUM/TT/5	9	20	12	1.75	2.5	15	10.5	10	80.75
KHUM/TT/6	9	12	12	1	1.75	10.5	10.5	10	66.75

Table III.166 Class Interval and Respective Scores for Quantitative Traits for *Acrocarpus fraxinifolius* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
				1.5-1.82	9	4-7.5	9	3-4.5	9
24	10	19	10	1.83-2.15	10	7.6-11.1	10	4.6-6.1	10

Table III.167 Scored data of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
UKUN/AF/1	10	10	10	10	10	10	10	10
UKUN/AF/2	10	10	9	9	9	10	7	10

Table III.168 Weightage Score for Each Trait of Plus Trees of *Acrocarpus fraxinifolius* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
UKUN/AF/1	15	20	20	2.5	2.5	15	15	10	100
UKUN/AF/2	15	20	18	2.25	2.25	15	10.5	10	93

Table III.169 Class Interval and Respective Scores for Quantitative Traits for *Artocarpus chaplasha* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
		14-14.5	9	2.85-3	9	16-18	9	7-12.5	9
21	10	14.6-15.1	10	3.1-3.25	10	18.1-20.1	10	12.6-18.1	10

Table III.170 Scored data of Plus Trees of *Artocarpus chaplasha* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
UKUN/AC/1	10	10	10	10	10	7	7	10
UKUN/AC/2	10	9	9	9	9	10	10	10

Table III.171 Weightage Score for Each Trait of Plus Trees of *Artocarpus chaplasha* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
UKUN/AC/1	15	20	20	2.5	2.5	10.5	10.5	10	91
UKUN/AC/2	15	18	18	2.25	2.25	15	15	10	95.5

Table III.172 Class Interval and Respective Scores for Quantitative Traits for *Cedrella toona* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15-16.6	6	8-9.4	6	1.5-1.67	6	7-8	6	4-5	6
16.7-18.3	7	9.5-10.9	7	1.68-1.85	7	8.1-9.1	7	6-7	7
18.4-20	8	11.0-12.4	8	1.86-2.03	8	9.2-10.2	8	7-8	8
20.1-21.7	9	12.5-13.9	9	2.04-2.21	9	10.3-11.3	9	8-9	9
21.8-23.4	10	14.0-15.4	10	2.22-2.39	10	11.4-12.4	10	9-10	10

Table III.173 Scored data of Plus Trees of *Cedrella toona* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
UKUN/CT/1	8	10	9	6	7	7	7	10
UKUN/CT/2	9	10	6	6	7	10	10	10
UKUN/CT/4	10	10	9	6	10	10	10	10
UKUN/CT/5	6	6	10	10	6	7	7	10

Table III.174 Weightage Score for Each Trait of Plus Trees of *Cedrella toona* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
UKUN/CT/1	12	20	18	1.5	1.75	10.5	10.5	10	84.25
UKUN/CT/2	13.5	20	12	1.5	1.75	15	15	10	88.75
UKUN/CT/4	15	20	18	1.5	2.5	15	15	10	97
UKUN/CT/5	9	12	20	2.5	1.5	10.5	10.5	10	76

Table III.175 Class Interval and Respective Scores for Quantitative Traits for *Cinnamomum cecidodaphne* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
23-23.8	6	17-17.4	6	1.75-1.9	6	6-7.4	6	4-5.2	6
23.9-24.7	7	17.5-17.9	7	2.0-2.15	7	7.5-8.9	7	5.3-6.5	7
24.8-25.6	8	18.0-18.4	8	2.16-2.31	8	9.0-10.4	8	6.6-7.8	8
25.7-26.5	9	18.5-18.9	9	2.32-2.47	9	10.5-11.9	9	7.9-9.1	9
26.6-27.4	10	19.0-19.4	10	2.48-2.63	10	12.0-13.4	10	9.2-10.4	10

Table III.176 Scored data of Plus Trees of *Cinnamomum cecidodaphne* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
UKUN/CC/1	7	10	6	6	6	10	10	10
UKUN/CC/2	6	6	6	6	6	10	10	10
UKUN/CC/3	8	10	8	8	9	7	7	10
UKUN/CC/4	7	8	7	10	10	10	10	10
UKUN/CC/5	10	10	10	10	8	10	10	10

Table III.177 Weightage Score for Each Trait of Plus Trees of *Cinnamomum cecidodaphne* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
UKUN/CC/1	10.5	20	12	1.5	1.5	15	15	10	85.5
UKUN/CC/2	9	12	12	1.5	1.5	15	15	10	76
UKUN/CC/3	12	20	16	2	2.25	10.5	10.5	10	83.25
UKUN/CC/4	10.5	16	14	2.5	2.5	15	15	10	85.5
UKUN/CC/5	15	20	20	2.5	2	15	15	10	99.5

Table III.178 Class Interval and Respective Scores for Quantitative Traits for *Gmelina arborea* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11-12.4	6	2.5-4.2	6	1.9-1.98	6	6-6.8	6	3	6
12.5-13.9	7	4.3-6.0	7	1.99-2.07	7	6.9-7.7	7	4	7
14.0-15.4	8	6.1-7.8	8	2.08-2.16	8	7.8-8.6	8	5	8
15.5-16.9	9	7.9-9.6	9	2.17-2.25	9	8.7-9.5	9	6	9
17.0-18.4	10	9.7-11.4	10	2.26-2.34	10	9.6-10.4	10	7	10

Table III.179 Scored data of Plus Trees of *Gmelina arborea* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KUND/GA/5	8	8	8	10	10	10	10	10
KUND/GA/6	10	10	10	8	7	7	7	10
KUND/GA/7	10	10	10	9	10	7	7	10

Table III.180 Weightage Score for Each Trait of Plus Trees of *Gmelina arborea* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUND/GA/5	12	16	16	2.5	2.5	15	15	10	89
KUND/GA/6	15	20	20	2	1.75	10.5	10.5	10	89.75
KUND/GA/7	15	20	20	2.25	2.5	10.5	10.5	10	90.75

Table III.181 Class Interval and Respective Scores for Quantitative Traits for *Michelia champaca* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
		11-13.5	9	2.4-2.55	9	11-11.05	9	6-8	9
22	10	13.6-16.1	10	2.56-2.71	10	11.6-12.1	10	8.1-10.1	10

Table III.182 Scored data of Plus Trees of *Michelia champaca* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KUND/MC/7	10	9	9	10	10	10	10	10
KUND/MC/9	10	10	10	9	9	10	10	10

Table III.183 Weightage Score for Each Trait of Plus Trees of *Michelia champaca* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUND/MC/7	15	18	18	2.5	2.5	15	15	10	96
KUND/MC/9	15	20	20	2.25	2.25	15	15	10	99.5

Table III.184 Class Interval and Respective Scores for Quantitative Traits for *Nyssa javanica* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
24-24.8	6	14-16	6	1.2-1.36	6	4-6.8	6	3-4.2	6
24.9-25.7	7	16.1-18.1	7	1.37-1.53	7	6.9-9.7	7	4.3-5.5	7
25.8-26.6	8	18.2-20.2	8	1.54-1.70	8	9.8-12.6	8	5.6-6.8	8
26.7-27.5	9	20.3-22.3	9	1.71-1.87	9	12.7-15.5	9	6.9-8.1	9
27.6-28.4	10	22.4-24.4	10	1.88-2.04	10	15.6-18.4	10	8.2-9.3	10

Table III.185 Scored data of Plus Trees of *Nyssa javanica* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
MAHA/NJ/1	10	8	10	10	9	10	10	10
MAHA/NJ/2	6	8	7	6	6	10	10	10
MAHA/NJ/3	8	9	6	7	8	10	10	10
MAHA/NJ/4	9	6	10	9	10	10	10	10
MAHA/NJ/5	10	10	8	7	7	10	10	10
MAHA/NJ/6	8	8	10	9	8	7	7	10
MAHA/NJ/7	8	8	7	7	8	10	10	10
MAHA/NJ/8	7	9	7	8	7	7	7	10

Table III.186 Weightage Score for Each Trait of Plus Trees of *Nyssa javanica* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
MAHA/NJ/1	15	16	20	2.5	2.25	15	15	10	95.75
MAHA/NJ/2	9	16	14	1.5	1.5	15	15	10	82
MAHA/NJ/3	12	18	12	1.75	2	15	15	10	85.75
MAHA/NJ/4	13.5	12	20	2.25	2.5	15	15	10	90.25
MAHA/NJ/5	15	20	16	1.75	1.75	15	15	10	94.5
MAHA/NJ/6	12	16	20	2.25	2	10.5	10.5	10	83.25
MAHA/NJ/7	12	16	14	1.75	2	15	15	10	85.75
MAHA/NJ/8	10.5	18	14	2	1.75	10.5	10.5	10	77.25

Table III.187 Class Interval and Respective Scores for Quantitative Traits for *Polyalthia Simiarum* in Kurseong Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
19.0-20.0	6	9.8-10.4	6	1.10-1.12	6	2.9-3.7	6	6-7	6
20.1-21.1	7	10.5-11.1	7	1.13-1.15	7	3.8-4.6	7	8-9	7
21.2-22.2	8	11.2-11.8	8	1.16-1.18	8	4.7-5.5	8	10-11	8
22.3-23.3	9	11.9-12.5	9	1.19-1.21	9	5.6-6.4	9	12-13	9
23.4-24.4	10	12.6-13.2	10	1.22-1.24	10	6.5-7.3	10	14-15	10

Table III.188 Scored data of Plus Trees of *Polyalthia Simiarum* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
KUND/PS/1	6	6	9	7	8	7	10	10
KUND/PS/2	6	9	6	10	10	10	7	10
KUND/PS/3	6	10	6	7	6	7	10	10
KUND/PS/4	7	9	6	6	6	10	10	10

Table III.189 Weightage Score for Each Trait of Plus Trees of *Polyalthia Simiarum* in Kurseong Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUND/PS/1	9	12	18	1.75	2	10.5	15	10	78.25
KUND/PS/2	9	18	12	2.5	2.5	15	10.5	10	79.5
KUND/PS/3	9	20	12	1.75	1.5	10.5	15	10	79.75
KUND/PS/4	10.5	18	12	1.5	1.5	15	15	10	83.5

Annexure -IV

1. Silviculture North Division

Table No. IV.1 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia flos reginae* in Jalpaiguri Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.80-18.60	6	5.80-8.60	6	0.9-1.06	6	3.30-5.40	6	4-5	6
18.70-21.50	7	8.70-11.50	7	1.07-1.23	7	5.50-7.60	7	6-7	7
21.60-24.40	8	11.60-14.40	8	1.24-1.40	8	7.70-9.80	8	8-9	8
24.50-27.30	9	14.50-17.30	9	1.41-1.57	9	9.90-12.00	9	10-11	9
27.40-30.20	10	17.40-20.20	10	1.58-1.74	10	12.10-14.20	10	12-13	10

Table No. IV.2 Scored data of New and Existing Trees of *Lagerstroemia flos reginae* in Jalpaiguri Division

Tree no	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
PANJ/LF/17	6	7	6	6	7	7	7	10
PANJ/LF/18	7	7	6	8	8	7	7	10
PANJ/LF/19	6	7	7	6	6	7	7	10
PANJ/LF/20	8	6	6	8	9	7	7	10
PANJ/LF/21	8	9	6	9	9	10	7	10
PANJ/LF/23	7	6	9	9	7	7	7	10
PANJ/LF/24	8	10	9	10	8	10	7	10
PANJ/LF/25	7	8	7	8	8	10	7	10
CENT/LF/11	8	7	8	9	9	10	10	10
CENT/LF/12	10	10	8	8	7	10	7	10
CENT/LF/13	10	10	8	7	6	10	7	10
CENT/LF/14	9	8	10	9	7	10	7	10
CENT/LF/15	8	7	9	10	10	10	10	10
BARA/LF/26	7	8	10	8	6	10	7	10
BARA/LF/27	6	7	10	9	10	7	7	10
BARA/LF/28	7	7	10	7	7	10	7	10
JPG/LT/LF/1	6	6	8	6	6	10	10	10

Table No. IV.3 Weightage Score for Each Trait of New and Existing Trees of *Lagerstroemia flos reginae* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
PANJ/LF/17	9	14	12	1.5	1.75	10.5	10.5	10	69.25
PANJ/LF/18	10.5	14	12	2	2	10.5	10.5	10	71.5
PANJ/LF/19	9	14	14	1.5	1.5	10.5	10.5	10	71
PANJ/LF/20	12	12	12	2	2.25	10.5	10.5	10	71.25
PANJ/LF/21	12	18	12	2.25	2.25	15	10.5	10	82
PANJ/LF/23	10.5	12	18	2.25	1.75	10.5	10.5	10	75.5
PANJ/LF/24	12	20	18	2.5	2	15	10.5	10	90
PANJ/LF/25	10.5	16	14	2	2	15	10.5	10	80
CENT/LF/11	12	14	16	2.25	2.25	15	15	10	86.5
CENT/LF/12	15	20	16	2	1.75	15	10.5	10	90.25
CENT/LF/13	15	20	16	1.75	1.5	15	10.5	10	89.75
CENT/LF/14	13.5	16	20	2.25	1.75	15	10.5	10	89
CENT/LF/15	12	14	18	2.5	2.5	15	15	10	89
JPG/LT/LF/1	10.5	16	20	2	1.5	15	10.5	10	85.5
BARA/LF/26	9	14	20	2.25	2.5	10.5	10.5	10	78.75
BARA/LF/27	10.5	14	20	1.75	1.75	15	10.5	10	83.5
BARA/LF/28	9	12	16	1.5	1.5	15	15	10	80

** The bold text are of New Selected Plus Trees*

Table. IV.4 Class Interval and Respective Scores for Quantitative Traits of *Michelia champaca* in Jalpaiguri Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
25.8-27.6	6	6.3-10.4	6	1.17-1.44	6	6.8-9.0	6	3-4	6
27.7-29.5	7	10.5-14.6	7	1.45-1.72	7	9.1-11.3	7	5-6	7
29.6-31.4	8	14.7-18.8	8	1.73-2.0	8	11.4-13.6	8	7-8	8
31.5-33.3	9	18.9-23.0	9	2.1-2.37	9	13.7-15.9	9	9—10	9
33.4-35.2	10	23.1-27.2	10	2.38-2.65	10	16.0-18.2	10	11-12	10

Table. IV.5 Scored data of New and Existing Trees of *Michelia champaca* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
JPG/LT/MC/1	**6**	**9**	**7**	**7**	**8**	**10**	**10**	**10**
JPG/LT/MC/2	**7**	**9**	**7**	**7**	**8**	**10**	**10**	**10**
JPG/LT/MC/3	**7**	**9**	**6**	**7**	**7**	**10**	**10**	**10**
JPG/LT/MC/4	**7**	**10**	**8**	**6**	**7**	**10**	**10**	**10**
CENT/MC/17	9	9	8	8	7	10	7	10
CENT/MC/18	9	8	9	10	8	10	10	10
SURS/MC/21	7	8	6	8	8	10	7	10
CENT/MC/15	10	10	9	10	9	10	10	10
CENT/MC/16	9	9	8	7	8	10	7	10
SMOR/MC/19	9	10	10	6	10	10	7	10
SMOR/MC/20	7	6	10	7	10	10	7	10
CENT/MC/1	7	7	8	9	7	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.6 Weightage Score for Each Trait of New and Existing Trees of *Michelia champaca* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
JPG/LT/MC/1	9	18	14	1.75	2	15	15	10	84.75
JPG/LT/MC/2	10.5	18	14	1.75	2	15	15	10	86.25
JPG/LT/MC/3	10.5	18	12	1.75	1.75	15	15	10	84
JPG/LT/MC/4	10.5	20	16	1.5	1.75	15	15	10	89.75
CENT/MC/17	13.5	18	16	2	1.75	15	10.5	10	86.75
CENT/MC/18	13.5	16	18	2.5	2	15	15	10	92
SURS/MC/21	10.5	16	12	2	2	15	10.5	10	78
CENT/MC/15	15	20	18	2.5	2.25	15	15	10	97.75
CENT/MC/16	13.5	18	16	1.75	2	15	10.5	10	86.75
SMOR/MC/19	13.5	20	20	1.5	2.5	15	10.5	10	93
SMOR/MC/20	10.5	12	20	1.75	2.5	15	10.5	10	82.25
CENT/MC/1	10.5	14	16	2.25	1.75	15	15	10	84.5

** The bold text are of New Selected Plus Trees*

Table. IV.7 Class Interval and Respective Scores for Quantitative Traits of *Shorea robusta* in Jalpaiguri Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
24.8-26.8	6	18.8-20.8	6	1.03-1.32	6	4.8-6.2	6	1-2	6
26.9-28.9	7	20.9-22.9	7	1.33-1.62	7	6.3-7.7	7	3-4	7
29.0-31.0	8	23.0-25.0	8	1.63-1.92	8	7.8-9.2	8	5-6	8
31.1-33.1	9	25.1-27.1	9	1.93-2.22	9	9.3-10.7	9	7-8	9
33.2-35.2	10	27.2-29.2	10	2.23-2.52	10	10.8-12.2	10	9-10	10

Table. IV.8 Scored data of New and Existing Trees of *Shorea robusta* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
JPG-CH-SR-1	**8**	**9**	**6**	**7**	**6**	**10**	**10**	**10**
JPG-LT-SR-6	**10**	**10**	**8**	**8**	**10**	**10**	**10**	**10**
JPG-LT-SR-7	**10**	**10**	**6**	**6**	**9**	**10**	**10**	**10**
JPG-LT-SR-8	**9**	**9**	**7**	**9**	**9**	**10**	**10**	**10**
JPG-LT-SR-9	**10**	**10**	**7**	**8**	**8**	**10**	**10**	**10**
JPG-LT-SR-10	**9**	**10**	**8**	**6**	**10**	**10**	**10**	**10**
JPG-LT-SR-11	**9**	**9**	**9**	**7**	**8**	**10**	**10**	**10**
JPG-LT-SR-1	**6**	**6**	**7**	**6**	**7**	**10**	**10**	**10**
SMOR-SR-35	10	8	10	10	10	10	7	10

** The bold text are of New Selected Plus Trees*

Table. IV.9 Weightage Score for Each Trait of New and Existing Trees of *Shorea robusta* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
JPG-CH-SR-1	12	18	12	1.75	1.5	15	15	10	85.25
JPG-LT-SR-6	15	20	16	2	2.5	15	15	10	95.5
JPG-LT-SR-7	15	20	12	1.5	2.25	15	15	10	90.75
JPG-LT-SR-8	13.5	18	14	2.25	2.25	15	15	10	90
JPG-LT-SR-9	15	20	14	2	2	15	15	10	93
JPG-LT-SR-10	13.5	20	16	1.5	2.5	15	15	10	93.5
JPG-LT-SR-11	13.5	18	18	1.75	2	15	15	10	93.25
JPG-LT-SR-1	9	12	14	1.5	1.75	15	15	10	78.25
SMOR-SR-35	15	16	20	2.5	2.5	15	10.5	10	91.5

** The bold text are of New Selected Plus Trees*

Table No.10 Class Interval and Respective Scores for Quantitative Traits of *Schima wallichii* in Jalpaiguri Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-21.0	6	8.8-13.0	6	1.21-1.50	6	2.8-5.8	6	1-3	6
21.1-24.3	7	13.1-17.3	7	1.51-1.80	7	5.9-8.9	7	4-6	7
24.4-27.6	8	17.4-21.6	8	1.81-2.10	8	9.0-12.0	8	7-9	8
27.7-30.9	9	21.7-25.9	9	2.11-2.40	9	12.1-15.1	9	10-12	9
31.0-34.2	10	26.0-30.2	10	2.41-2.70	10	15.2-18.2	10	13-15	10

Table. IV.11 Scored data of New and Existing Trees of *Schima wallichii* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
JPG-CH-SW-1	8	9	7	7	7	**10**	**10**	**10**
JPG-LT-SW-3	10	10	7	8	6	**10**	**10**	**10**
JPG-LT-SW-4	10	10	7	8	7	**10**	**10**	**10**
JPG-LT-SW-6	8	7	6	8	8	**10**	**10**	**10**
JPG-LT-SW-7	9	9	7	7	7	**10**	**10**	**10**
JPG-LT-SW-8	10	9	7	6	8	**10**	**10**	**10**
JPG-LT-SW-9	9	9	7	6	7	**10**	**10**	**10**
JPG-LT-SW-1	6	6	7	7	8	**10**	**10**	**10**
JPG-LT-SW-2	7	8	7	7	7	**10**	**10**	**10**
JPG-LT-SW-3	8	8	7	6	7	**10**	**10**	**10**
JPG-LT-SW-4	6	6	7	7	8	**10**	**10**	**10**
JPG-LT-SW-5	6	6	7	6	7	**10**	**10**	**10**
JPG-LT-SW-6	6	6	7	6	7	**10**	**10**	**10**
JPG-LT-SW-7	6	6	6	6	7	**10**	**10**	**10**
JPG-LT-SW-8	6	6	7	7	7	**10**	**10**	**10**
CENT/SW/10	9	6	7	6	7	10	7	10
SURS/SW/7	10	8	6	9	8	10	7	10
SURS/SW/8	10	9	10	10	9	10	7	10
SURS/SW/9	9	8	10	9	9	10	10	10
SMOR-SW-1	10	10	10	6	9	7	7	10
SMOR-SW-5	9	8	10	7	8	10	7	10
SMOR-SW-6	10	7	9	7	8	10	7	10
BARA/SW/11	7	7	8	7	8	10	7	10
BARA/SW/12	7	6	8	8	8	10	7	10
CELKA/SW/13	6	6	8	8	8	10	10	10
CELKA/SW/14	10	8	9	9	8	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.12 Weightage Score for Each Trait of New and Existing Trees of *Schima wallichii* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
JPG-CH-SW-1	12	18	14	1.75	1.75	15	15	10	87.5
JPG-LT-SW-3	15	20	14	2	1.5	15	15	10	92.5
JPG-LT-SW-4	15	20	14	2	1.75	15	15	10	92.75
JPG-LT-SW-6	12	14	12	2	2	15	15	10	82
JPG-LT-SW-7	13.5	18	14	1.75	1.75	15	15	10	89
JPG-LT-SW-8	15	18	14	1.5	2	15	15	10	90.5
JPG-LT-SW-9	13.5	18	14	1.5	1.75	15	15	10	88.75
JPG-LT-SW-1	9	12	14	1.75	2	15	15	10	78.75
JPG-LT-SW-2	10.5	16	14	1.75	1.75	15	15	10	84
JPG-LT-SW-3	12	16	14	1.5	1.75	15	15	10	85.25
JPG-LT-SW-4	9	12	14	1.75	2	15	15	10	78.75
JPG-LT-SW-5	9	12	14	1.5	1.75	15	15	10	78.25
JPG-LT-SW-6	9	12	14	1.5	1.75	15	15	10	78.25
JPG-LT-SW-7	9	12	12	1.5	1.75	15	15	10	76.25
JPG-LT-SW-8	9	12	14	1.75	1.75	15	15	10	78.5
CENT/SW/10	13.5	12	14	1.5	1.75	15	10.5	10	78.25
SURS/SW/7	15	16	12	2.25	2	15	10.5	10	82.75
SURS/SW/8	15	18	20	2.5	2.25	15	10.5	10	93.25
SURS/SW/9	13.5	16	20	2.25	2.25	15	15	10	94
SMOR-SW-1	15	20	20	1.5	2.25	10.5	10.5	10	89.75
SMOR-SW-5	13.5	16	20	1.75	2	15	10.5	10	88.75
SMOR-SW-6	15	14	18	1.75	2	15	10.5	10	86.25
BARA/SW/11	10.5	14	16	1.75	2	15	10.5	10	79.75
BARA/SW/12	10.5	12	16	2	2	15	10.5	10	78
CELKA/SW/13	9	12	16	2	2	15	15	10	81
CELKA/SW/14	15	16	18	2.25	2	15	15	10	93.25

** The bold text are of New Selected Plus Trees*

Table. IV.13 Class Interval and Respective Scores for Quantitative Traits of *Tectona grandis* in Jalpaiguri Division

Height Intervals	**Score**	**Clear Bole Height Intervals**	**Score**	**Girth at Breast Height Intervals**	**Score**	**Crown Width Intervals**	**Score**	**Number of Branches Intervals**	**Score**
17.80-21.20	6	6.80-10.60	6	1.08-1.41	6	3.80-5.40	6	1-3	6
21.30-24.70	7	10.70-14.50	7	1.42-1.75-	7	5.50-7.10	7	4-6	7
24.80-28.20	8	14.60-18.40	8	1.76-2.09	8	7.20-8.80	8	7-9	8
28.30-31.70	9	18.50-22.30	9	2.10-2.43	9	8.90-10.50	9	10-12	9
31.80-35.10	10	22.40-26.20	10	2.44-2.77	10	10.60-12.20	10	13-15	10

Table. IV.14 Scored data of New and Existing Trees of *Tectona grandis* in Jalpaiguri Division

Tree no	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
RETI/TG/54	10	9	10	7	8	10	7	10
RETI/ TG/55	10	10	10	10	9	10	7	10
RETI/ TG/56	8	7	9	7	8	10	7	10
CENT/TG/29	6	6	6	8	9	10	7	10
CENT/TG/30	7	8	6	8	9	10	7	10
CENT/TG/31	9	9	6	8	10	10	7	10
CENT/TG/32	8	8	6	9	9	10	7	10
GOSAI/TG/53	10	9	8	10	8	10	7	10
SMOR/TG/48	9	9	7	8	8	10	7	10
SMOR/TG/47	8	9	7	7	8	10	7	10
SMOR/TG/49	9	9	7	7	8	10	7	10
SMOR/TG/50	9	9	7	7	8	10	7	10
SMOR/TG/51	10	10	7	10	9	10	7	10
SMOR/TG/52	9	9	7	8	8	10	7	10
JPG/LT/TG/1	9	8	6	7	9	10	10	10
SURS/TG/33	6	6	6	7	7	10	7	10
SURS/TG/34	7	8	7	7	8	10	7	10
SURS/TG/35	6	8	6	7	8	10	7	10
SURS/TG/36	7	7	6	7	10	10	10	10
SURS/TG/37	6	6	6	8	8	10	7	10
SURS/TG/38	6	8	6	6	9	10	7	10
KHUN/TG/39	7	8	7	6	6	10	7	10
KHUN/TG/40	7	8	8	6	7	10	7	10
KHUN/TG/41	8	8	8	7	7	10	7	10
KHUN/TG/42	6	7	7	6	7	10	7	10

** The bold text are of New Selected Plus Trees*

Table. IV.15 Weightage Score for Each Trait of New and Existing Trees of *Tectona grandis* in Jalpaiguri Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
RETI/ TG/54	15	18	20	1.75	2	15	10.5	10	92.25
RETI/ TG/55	15	20	20	2.5	2.25	15	10.5	10	95.25
RETI/ TG/56	12	14	18	1.75	2	15	10.5	10	83.25
CENT/TG/29	9	12	12	2	2.25	15	10.5	10	72.75
CENT/TG/30	10.5	16	12	2	2.25	15	10.5	10	78.25
CENT/TG/31	13.5	18	12	2	2.5	15	10.5	10	83.5
CENT/TG/32	12	16	12	2.25	2.25	15	10.5	10	80
GOSAI/TG/53	15	18	16	2.5	2	15	10.5	10	89
SMOR/TG/48	13.5	18	14	2	2	15	10.5	10	85
SMOR/TG/47	12	18	14	1.75	2	15	10.5	10	83.25
SMOR/TG/49	13.5	18	14	1.75	2	15	10.5	10	84.75
SMOR/TG/50	13.5	18	14	1.75	2	15	10.5	10	84.75
SMOR/TG/51	15	20	14	2.5	2.25	15	10.5	10	89.25
SMOR/TG/52	13.5	18	14	2	2	15	10.5	10	85
JPG/LT/TG/1	13.5	16	12	1.75	2.25	15	15	10	85.5
SURS/TG/33	9	12	12	1.75	1.75	15	10.5	10	72
SURS/TG/34	10.5	16	14	1.75	2	15	10.5	10	79.75
SURS/TG/35	9	16	12	1.75	2	15	10.5	10	76.25
SURS/TG/36	10.5	14	12	1.75	2.5	15	15	10	80.75
SURS/TG/37	9	12	12	2	2	15	10.5	10	72.5
SURS/TG/38	9	16	12	1.5	2.25	15	10.5	10	76.25
KHUN/TG/39	10.5	16	14	1.5	1.5	15	10.5	10	79

Table . IV.16 Class Interval and Respective Scores for Quantitative Traits of *Terminalia alata* in Bankura (South) Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.80-15.60	6	3.80-6.00	6	0.73-0.86	6	2.80-4.20	6	1-3	6
15.70-17.50	7	6.10-8.30	7	0.87-1.00	7	4.30-5.70	7	4-6	7
17.60-19.40	8	8.40-10.60	8	1.01-1.14	8	5.80-7.20	8	7-9	8
19.50-21.30	9	10.70-12.90	9	1.15-1.28	9	7.30-8.70	9	10-12	9
21.40-23.20	10	13.00-15.20	10	1.29-1.42	10	8.80-10.20	10	13-15	10

Table. IV.17 Scored data of New and Existing Trees of *Terminalia alata* in Bankura (South)Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
JHIL/TA/1	6	6	6	6	9	10	7	10
JHIL/TA/2	10	7	9	6	6	10	10	10
JHIL/TA/3	6	6	9	9	9	7	10	10
JHIL/TA/4	6	8	8	7	7	10	7	10
JHIL/TA/5	7	9	7	9	9	10	7	10
JHIL/TA/6	6	6	7	10	8	10	10	10
SUTA/TA/1	7	10	9	10	10	10	10	10
SUTA/TA/2	9	10	8	9	8	7	10	10
SUTA/TA/3	10	8	8	6	7	10	10	10
BNK(S)/JM/TA/1	9	10	10	10	8	10	10	10
BNK(S)/JM/TA/2	10	9	10	8	7	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.18 Weightage Score for Each Trait of New and Existing Trees of *Terminalia alata* in Bankura (South) Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
JHIL/TA/1	9	12	12	1.5	2.25	15	10.5	10	72.25
JHIL/TA/2	15	14	18	1.5	1.5	15	15	10	90
JHIL/TA/3	9	12	18	2.25	2.25	10.5	15	10	79
JHIL/TA/4	9	16	16	1.75	1.75	15	10.5	10	80
JHIL/TA/5	10.5	18	14	2.25	2.25	15	10.5	10	82.5
JHIL/TA/6	9	12	14	2.5	2	15	15	10	79.5
SUTA/TA/1	10.5	20	18	2.5	2.5	15	15	10	93.5
SUTA/TA/2	13.5	20	16	2.25	2	10.5	15	10	89.25
SUTA/TA/3	15	16	16	1.5	1.75	15	15	10	90.25
BNK(S)/JM/TA/1	13.5	20	20	2.5	2	15	15	10	98
BNK(S)/JM/TA/2	15	18	20	2	1.75	15	15	10	96.75

** The bold text are of New Selected Plus Trees*

Table. IV.19 Class Interval and Respective Scores for Quantitative Traits of *Acacia mangium* in Jhargram Division

Total Height Interval	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
12.80-15.6	6	5.80-8.00	6	0.15-0.46	6	4.55-6.84	6	1-4	6
15.7-18.50	7	8.10-10.30	7	0.47-0.78	7	6.85-9.14	7	5-8	7
18.60-21.40	8	10.40-12.60	8	0.79-1.10	8	9.15-11.44	8	9-12	8
21.50-24.30	9	12.70-14.90	9	1.11-1.42	9	11.45-13.74	9	13-16	9
24.40-27.20	10	15.00-17.20	10	1.43-1.74	10	13.75-16.04	10	17-20	10

Table. IV.20 Scored data of New and Existing Trees of *Acacia mangium* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection
NNG/AM/1	8	8	10	7	8	7	7	10
NNG/AM/2	8	8	10	6	9	7	7	10
NNG/AM/4	8	6	8	8	10	7	7	10
NNG/AM/5	7	9	8	7	8	10	10	10
NNG/AM/7	9	8	9	7	9	10	10	10
NNG/AM/8	8	8	9	10	10	10	7	10
NNG/AM/10	10	7	8	7	7	8	10	10
NNG/AM/11	6	6	9	7	9	7	7	10
NNG/AM/15	9	10	8	6	7	10	10	10
NNG/AM/17	10	7	9	6	6	10	6	10
NNG/AM/18	10	6	8	6	6	10	10	10
NNG/AM/21	9	10	6	7	9	10	10	10
NNG/AM/24	10	7	9	6	6	7	10	10
NNG/AM/25	9	8	8	7	8	10	10	10
NNG/AM/26	9	8	7	6	6	10	10	10
NNG/AM/27	6	6	7	6	6	7	10	10
NNG/AM/30	8	8	8	6	7	10	10	10
JG/SL/AM/1	8	8	9	7	6	**10**	**10**	**10**
JG/BV/AM/2	7	8	8	6	7	**10**	**10**	**10**

** The bold text are of New Selected Plus Trees*

Table. IV.21 Weightage Score for Each Trait of New and Existing Trees of *Acacia mangium* in Jhargram Division

Tree No	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	No of Branches	Stem Straightness	Stem Form	Infection	Total Score
NNG/AM/1	12	16	20	1.75	2	10.5	10.5	10	82.75
NNG/AM/2	12	16	20	1.5	2.25	10.5	10.5	10	82.75
NNG/AM/4	12	12	16	2	2.5	10.5	10.5	10	75.5
NNG/AM/5	10.5	18	16	1.75	2	15	15	10	88.25
NNG/AM/7	13.5	16	18	1.75	2.25	15	15	10	91.5
NNG/AM/8	12	16	18	2.5	2.5	15	10.5	10	86.5
NNG/AM/10	15	14	16	1.75	1.75	12	15	10	85.5
NNG/AM/11	9	12	18	1.75	2.25	10.5	10.5	10	74
NNG/AM/15	13.5	20	16	1.5	1.75	15	15	10	92.75
NNG/AM/17	15	14	18	1.5	1.5	15	9	10	84
NNG/AM/18	15	12	16	1.5	1.5	15	15	10	86
NNG/AM/21	13.5	20	12	1.75	2.25	15	15	10	89.5
NNG/AM/24	15	14	18	1.5	1.5	10.5	15	10	85.5
NNG/AM/25	13.5	16	16	1.75	2	15	15	10	89.25
NNG/AM/26	13.5	16	14	1.5	1.5	15	15	10	86.5
NNG/AM/27	9	12	14	1.5	1.5	10.5	15	10	73.5
NNG/AM/30	12	16	16	1.5	1.75	15	15	10	87.25
JG/SL/AM/1	12	16	18	1.75	1.5	15	15	10	89.25
JG/BV/AM/2	10.5	16	16	1.5	1.75	15	15	10	85.75

** The bold text are of New Selected Plus Trees*

Table. IV.22 Class Interval and Respective Scores for Quantitative Traits of *Emblica officinalis* in Jhargram Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
3.8-5.8	6	0.1-0.98	6	0.5 – 0.65	6	3.5 – 5.9	6	3-6	6
5.9-7.9	7	0.99-1.87	7	0.66 – 0.81	7	6.0 – 8.4	7	7-10	7
8.0-10.0	8	1.88-2.76	8	0.82 – 0.97	8	8.5 – 10.9	8	11-14	8
10.1-12.1	9	2.77-3.65	9	0.98 – 1.13	9	11.0 – 13.4	9	15-18	9
12.2-14.2	10	3.66-4.50	10	1.14 – 1.29	10	13.5 – 15.9	10	19-22	10

Table. IV.23 Scored data of New and Existing Trees of *Emblica officinalis* in Jhargram Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
NNGR/EO/1	8	6	6	8	7	7	7	10
NNGR/EO/2	8	6	8	10	9	7	7	10
NNGR/EO/3	8	6	8	10	9	4	7	10
NNGR/EO/4	7	6	8	8	9	4	7	10
NNGR/EO/5	7	6	6	7	7	4	7	10
NNGR/EO/6	7	6	7	7	8	4	7	10
NNGR/EO/7	8	6	7	8	8	4	7	10
NNGR/EO/8	8	6	8	9	9	4	7	10
NNGR/EO/9	8	7	9	9	8	4	7	10
NNGR/EO/10	7	6	7	8	8	4	7	10
NNGR/EO/11	8	6	8	9	10	4	7	10
NNGR/EO/12	8	6	7	10	7	4	7	10
NNGR/EO/13	6	6	8	7	7	4	7	10
NNGR/EO/14	7	6	8	9	9	4	7	10
NNGR/EO/16	8	8	8	8	7	4	7	10
NNGR/EO/17	8	6	7	8	7	4	7	10
NNGR/EO/18	7	8	6	6	6	7	7	10
NNGR/EO/19	7	7	7	6	7	4	7	10
NNGR/EO/20	6	7	7	7	8	7	7	10
NNGR/EO/21	6	8	6	6	6	4	7	10
NNGR/EO/22	7	6	10	10	10	4	7	10
NNGR/EO/23	6	6	6	8	8	4	7	10
BLBS-PE-1	**10**	**10**	**6**	**6**	**6**	**10**	**10**	**10**

** The bold text are of New Selected Plus Trees*

Table. IV.24 Weightage Score for Each Trait of New and Existing Trees of *Emblica officinalis* in Jhargram Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	
NNGR/EO/1	12	12	12	2	1.75	10.5	10.5	10	70.75
NNGR/EO/2	12	12	16	2.5	2.25	10.5	10.5	10	75.75
NNGR/EO/3	12	12	16	2.5	2.25	6	10.5	10	71.25
NNGR/EO/4	10.5	12	16	2	2.25	6	10.5	10	69.25
NNGR/EO/5	10.5	12	12	1.75	1.75	6	10.5	10	64.5
NNGR/EO/6	10.5	12	14	1.75	2	6	10.5	10	66.75
NNGR/EO/7	12	12	14	2	2	6	10.5	10	68.5
NNGR/EO/8	12	12	16	2.25	2.25	6	10.5	10	71
NNGR/EO/9	12	14	18	2.25	2	6	10.5	10	74.75
NNGR/EO/10	10.5	12	14	2	2	6	10.5	10	67
NNGR/EO/11	12	12	16	2.25	2.5	6	10.5	10	71.25
NNGR/EO/12	12	12	14	2.5	1.75	6	10.5	10	68.75
NNGR/EO/13	9	12	16	1.75	1.75	6	10.5	10	67
NNGR/EO/14	10.5	12	16	2.25	2.25	6	10.5	10	69.5
NNGR/EO/16	12	16	16	2	1.75	6	10.5	10	74.25
NNGR/EO/17	12	12	14	2	1.75	6	10.5	10	68.25
NNGR/EO/18	10.5	16	12	1.5	1.5	10.5	10.5	10	72.5
NNGR/EO/19	10.5	14	14	1.5	1.75	6	10.5	10	68.25
NNGR/EO/20	9	14	14	1.75	2	10.5	10.5	10	71.75
NNGR/EO/21	9	16	12	1.5	1.5	6	10.5	10	66.5
NNGR/EO/22	10.5	12	20	2.5	2.5	6	10.5	10	74
NNGR/EO/23	9	12	12	2	2	6	10.5	10	63.5
BLBS-PE-1	12	12	12	2	1.75	10.5	10.5	10	70.75

** The bold text are of New Selected Plus Trees*

Table. IV.25 Class Interval and Respective Scores for Quantitative Traits of *Alnes nepalensis* in Darjeeling Hill Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
20.8-23.0	6	15.8-17.4	6	0.85-1.07	6	4.8-6.2	6	5-6	6
223.1-25.3	7	17.5-19.1	7	1.08-1.27	7	6.3-7.7	7	7-8	7
25.4-27.6	8	19.2-20.8	8	1.28-1.47	8	7.8-9.2	8	9-10	8
27.7-29.9	9	20.9-22.5	9	1.78-1.67	9	9.3-10.7	9	11-12	9
30.0-32.2	10	22.6-24.2	10	1.68-1.87	10	10.8-12.2	10	13-14	10

Table. IV.26 Scored data of New and Existing Trees of *Alnes nepalensis* in Darjeeling Hill Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
TKD-HM-AN-1	**7**	**8**	**6**	**6**	**7**	**10**	**7**	**10**
TKD-HM-AN-2	**8**	**9**	**9**	**9**	**6**	**10**	**7**	**10**
TKD-HM-AN-3	**9**	**10**	**9**	**6**	**8**	**10**	**7**	**10**
TKD-HM-AN-4	**8**	**9**	**8**	**9**	**10**	**10**	**7**	**10**
TKD-HM-AN-5	**6**	**7**	**7**	**6**	**7**	**10**	**7**	**10**
TKD-HM-AN-6	**7**	**9**	**6**	**6**	**7**	**10**	**7**	**10**
TKD-HM-AN-7	**7**	**9**	**7**	**10**	**7**	**10**	**7**	**10**
TKD-HM-AN-8	**6**	**6**	**7**	**8**	**7**	**10**	**7**	**10**
TKD-HM-AN-9	**7**	**6**	**6**	**10**	**8**	**10**	**7**	**10**
TKD-HM-AN-10	**6**	**6**	**6**	**9**	**7**	**10**	**7**	**10**
AN 1	9	7	10	10	9	10	10	10
AN 2	10	10	10	8	9	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.27 Weightage Score for Each Trait of New and Existing Trees of *Alnes nepalensis* in Darjeeling Hill Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
TKD-HM-AN-1	10.5	16	12	1.5	1.75	15	10.5	10	77.25
TKD-HM-AN-2	12	18	18	2.25	1.5	15	10.5	10	87.25
TKD-HM-AN-3	13.5	20	18	1.5	2	15	10.5	10	90.5
TKD-HM-AN-4	12	18	16	2.25	2.5	15	10.5	10	86.25
TKD-HM-AN-5	9	14	14	1.5	1.75	15	10.5	10	75.75
TKD-HM-AN-6	10.5	18	12	1.5	1.75	15	10.5	10	79.25
TKD-HM-AN-7	10.5	18	14	2.5	1.75	15	10.5	10	82.25
TKD-HM-AN-8	9	12	14	2	1.75	15	10.5	10	74.25
TKD-HM-AN-9	10.5	12	12	2.5	2	15	10.5	10	74.5
TKD-HM-AN-10	9	12	12	2.25	1.75	15	10.5	10	72.5
AN 1	13.5	14	20	2.5	2.25	15	15	10	92.25
AN 2	15	20	20	2	2.25	15	15	10	99.25

** The bold text are of New Selected Plus Trees*

Table. IV.28 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.3-19.6	6	6.3-8.6	6	1.30-1.48	6	4.4-5.7	6	3-4	6
19.7-22.0	7	8.7-11.0	7	1.49-1.67	7	5.8-7.1	7	5-6	7
22.1-24.4	8	11.1-13.4	8	1.68-1.86	8	7.2-8.5	8	7-8	8
24.5-26.8	9	13.5-15.8	9	1.87-2.05	9	8.6-9.9	9	9-10	9
26.9-29.2	10	15.9-18.2	10	2.06-2.24	10	10.0-11.3	10	11-12	10

Table. IV.29 Scored data of New and Existing Trees of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
MWLS-SU-LF-1	6	6	8	6	7	**10**	**10**	**10**
MWLS-SU-LF-2	6	7	9	9	7	**10**	**10**	**10**
MWLS-SU-LF-3	10	10	10	7	7	**10**	**10**	**10**
MWLS-SU-LF-4	9	8	9	8	8	**10**	**10**	**10**
MWLS-SU-LF-5	10	8	8	10	7	**10**	**10**	**10**
MWLS-SU-LF-6	9	8	8	10	6	**10**	**10**	**10**
MWLS-SU-LF-7	8	9	8	7	6	**10**	**10**	**10**
MWLS-SU-LF-8	9	10	6	6	6	**10**	**10**	**10**
SU-KYAN-LF-1	7	7	9	8	8	**10**	**10**	**10**
SU-KYAN-LF-2	9	8	8	7	7	**10**	**10**	**10**
SU-KYAN-LF-3	10	10	7	8	7	**10**	**10**	**10**
SU-KYAN-LF-4	10	9	10	8	8	**10**	**10**	**10**
KYAN/LF/1	6	6	10	10	10	7	10	10
KYAN/LF/2	6	7	7	9	7	7	7	10
PANCH/LF/3	6	7	7	8	8	7	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.30 Weightage Score for Each Trait of New and Existing Trees of *Lagerstroemia flos reginae* in Darjeeling Wildlife Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
MWLS-SU-LF-1	9	12	16	1.5	1.75	15	15	10	80.25
MWLS-SU-LF-2	9	14	18	2.25	1.75	15	15	10	85
MWLS-SU-LF-3	15	20	20	1.75	1.75	15	15	10	98.5
MWLS-SU-LF-4	13.5	16	18	2	2	15	15	10	91.5
MWLS-SU-LF-5	15	16	16	2.5	1.75	15	15	10	91.25
MWLS-SU-LF-6	13.5	16	16	2.5	1.5	15	15	10	89.5
MWLS-SU-LF-7	12	18	16	1.75	1.5	15	15	10	89.25
MWLS-SU-LF-8	13.5	20	12	1.5	1.5	15	15	10	88.5
SU-KYAN-LF-1	10.5	14	18	2	2	15	15	10	86.5
SU-KYAN-LF-2	13.5	16	16	1.75	1.75	15	15	10	89
SU-KYAN-LF-3	15	20	14	2	1.75	15	15	10	92.75
SU-KYAN-LF-4	15	18	20	2	2	15	15	10	97
KYAN/LF/1	9	12	20	2.5	2.5	10.5	15	10	81.5
KYAN/LF/2	9	14	14	2.25	1.75	10.5	10.5	10	72
PANCH/LF/3	9	14	14	2	2	10.5	15	10	76.5

*** The bold text are of New Selected Plus Trees**

Table. IV.31 Class Interval and Respective Scores for Quantitative Traits of *Alnus Nepalensis* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-18.2	6	3.3-6.8	6	0.78-1.26	6	2.8-5.2	6	4-6	6
18.3-20.7	7	6.9-10.4	7	1.27-1.75	7	5.3-7.7	7	7-9	7
20.8-23.3	8	10.5-14.0	8	1.76-2.24	8	7.8-10.2	8	10-12	8
23.4-25.8	9	14.1-17.6	9	2.5-2.73	9	10.3-12.7	9	13-15	9
25.9-28.3	10	17.7-21.2	10	2.74-3.22	10	12.8-15.2	10	16-18	10

Table. IV.32 Scored data of New and Existing Trees of *Alnus Nepalensis* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
ALG-PNK-AN-1	6	6	8	8	8	10	10	10
ALG-PY-AN-2	7	8	7	9	7	10	10	10
ALG-PY-AN-3	8	9	7	8	7	10	10	10
ALG-PY-AN-4	8	8	7	8	9	10	10	10
AL-DMS-AN-1	9	8	8	10	9	10	10	10
AL-DMS-AN-2	8	9	6	10	7	10	10	10
AL-DMS-AN-3	8	8	7	8	7	10	10	10
AL-DMS-AN-4	8	10	7	6	6	10	10	10
AL-DMS-AN-5	8	9	6	6	6	10	10	10
AL-DMS-AN-6	10	10	7	7	6	10	10	10
LAVA-AN-4	9	7	8	8	10	10	7	10
LAVA-AN-5	10	10	7	8	8	10	7	10
MEYO-AN-6	8	9	8	8	7	10	7	10
MEYO-AN-7	8	8	9	7	7	10	7	10
MEYO-AN-8	7	9	8	8	7	10	7	10
MEYO-AN-9	8	9	10	6	7	10	7	10
MEYO-AN-10	7	6	10	10	8	10	7	10
MEYO-AN-11	6	6	8	8	6	10	7	10
MEYO-AN-12	7	6	9	6	6	10	7	10
MEYO-AN-13	9	8	9	10	9	7	10	10
MEYO-AN-14	7	8	8	7	6	10	7	10
MEYO-AN-15	8	7	9	8	7	10	7	10
MEYO-AN-16	9	10	10	10	8	10	7	10
MEYO-AN-18	8	10	9	7	6	7	7	10
MEYO-AN-19	7	9	8	7	6	10	7	10

Table. IV.33 Weightage Score for Each Trait of New and Existing Trees of *Alnus Nepalensis* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
ALG-PNK-AN-1	9	12	16	2	2	15	15	10	81
ALG-PY-AN-2	10.5	16	14	2.25	1.75	15	15	10	84.5
ALG-PY-AN-3	12	18	14	2	1.75	15	15	10	87.75
ALG-PY-AN-4	12	16	14	2	2.25	15	15	10	86.25
AL-DMS-AN-1	13.5	16	16	2.5	2.25	15	15	10	90.25
AL-DMS-AN-2	12	18	12	2.5	1.75	15	15	10	86.25
AL-DMS-AN-3	12	16	14	2	1.75	15	15	10	85.75
AL-DMS-AN-4	12	20	14	1.5	1.5	15	15	10	89
AL-DMS-AN-5	12	18	12	1.5	1.5	15	15	10	85
AL-DMS-AN-6	15	20	14	1.75	1.5	15	15	10	92.25
LAVA-AN-4	13.5	14	16	2	2.5	15	10.5	10	83.5
LAVA-AN-5	15	20	14	2	2	15	10.5	10	88.5
MEYO-AN-6	12	18	16	2	1.75	15	10.5	10	85.25
MEYO-AN-7	12	16	18	1.75	1.75	15	10.5	10	85
MEYO-AN-8	10.5	18	16	2	1.75	15	10.5	10	83.75
MEYO-AN-9	12	18	20	1.5	1.75	15	10.5	10	88.75
MEYO-AN-10	10.5	12	20	2.5	2	15	10.5	10	82.5
MEYO-AN-11	9	12	16	2	1.5	15	10.5	10	76
MEYO-AN-12	10.5	12	18	1.5	1.5	15	10.5	10	79
MEYO-AN-13	13.5	16	18	2.5	2.25	10.5	15	10	87.75
MEYO-AN-14	10.5	16	16	1.75	1.5	15	10.5	10	81.25
MEYO-AN-15	12	14	18	2	1.75	15	10.5	10	83.25
MEYO-AN-16	13.5	20	20	2.5	2	15	10.5	10	93.5
MEYO-AN-18	12	20	18	1.75	1.5	10.5	10.5	10	84.25
MEYO-AN-19	10.5	18	16	1.75	1.5	15	10.5	10	83.25

Table. IV.34 Class Interval and Respective Scores for Quantitative Traits of *Bucklandia populnea* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
14.3-17.0	6	3.8-5.4	6	1.1-1.43	6	2.8-4.8	6	4-6	6
17.1-19.8	7	5.5-7.1	7	1.44-1.86	7	4.9-6.9	7	7-9	7
19.9-22.6	8	7.2-8.8	8	1.87-2.29	8	7.0-9.0	8	10-12	8
22.7-25.4	9	8.9-10.5	9	2.30-2.72	9	9.1-11.1	9	13-15	9
25.5-28.2	10	10.6-12.2	10	2.73-3.2	10	11.2-13.2	10	16-18	10

Table. IV. 35 Scored data of New and Existing Trees of *Bucklandia populnea* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
ALG-PY-BP-1	**8**	**6**	**7**	**8**	**6**	10	10	10
ALG-RIS-BP-2	**10**	**9**	**7**	**8**	**10**	10	10	10
ALG-RIS-BP-3	**9**	**9**	**7**	**10**	**10**	10	10	10
ALG-RIS-BP-4	**9**	**6**	**7**	**8**	**9**	10	10	10
BOKH-BP-1	6	10	6	7	9	10	7	10
PEML-BP-2	9	10	10	6	6	10	7	10
PEML-BP-3	10	10	9	6	7	10	7	10
PEML-BP-4	9	10	10	7	7	10	7	10
PEML-BP-7	6	6	6	7	7	10	7	10

** The bold text are of New Selected Plus Trees*

Table. IV.36 Weightage Score for Each Trait of New and Existing Trees of *Bucklandia populnea* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
ALG-PY-BP-1	12	12	14	2	1.5	15	15	10	81.5
ALG-RIS-BP-2	15	18	14	2	2.5	15	15	10	91.5
ALG-RIS-BP-3	13.5	18	14	2.5	2.5	15	15	10	90.5
ALG-RIS-BP-4	13.5	12	14	2	2.25	15	15	10	83.75
BOKH-BP-1	9	20	12	1.75	2.25	15	10.5	10	80.5
PEML-BP-2	13.5	20	20	1.5	1.5	15	10.5	10	92
PEML-BP-3	15	20	18	1.5	1.75	15	10.5	10	91.75
PEML-BP-4	13.5	20	20	1.75	1.75	15	10.5	10	92.5
PEML-BP-7	9	12	12	1.75	1.75	15	10.5	10	72

** The bold text are of New Selected Plus Trees*

Table. IV.37 Class Interval and Respective Scores for Quantitative Traits of *Cinnamomum cecidodaphne* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-16.8	6	5.8-7.6	6	1.44-1.52	6	5.8-6.6	6	5	6
16.9-17.9	7	7.7-9.5	7	1.53-1.61	7	6.7-7.5	7	6	7
18.0-19.0	8	9.6-11.4	8	1.62-1.70	8	7.6-8.4	8	7	8
19.1-20.1	9	11.5-13.3	9	1.71-1.79	9	8.5-9.3	9	8	9
20.1-21.1	10	13.4-15.2	10	1.80-1.88	10	9.4-10.2	10	9	10

Table. IV.38 Scored data of New and Existing Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-CC-1	8	6	10	6	10	10	10	10
KP-NR-CC-2	9	6	9	8	7	10	10	10
KP-NR-CC-3	9	10	7	9	9	10	10	10
KP-NR-CC-4	10	10	10	10	7	10	10	10
KP-NR-CC-5	6	6	6	6	6	10	10	10

Table. IV.39 Weightage Score for Each Trait of New and Existing Trees of *Cinnamomum cecidodaphne* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-CC-1	12	12	20	1.5	2.5	15	15	10	88
KP-NR-CC-2	13.5	12	18	2	1.75	15	15	10	87.25
KP-NR-CC-3	13.5	20	14	2.25	2.25	15	15	10	92
KP-NR-CC-4	15	20	20	2.5	1.75	15	15	10	99.25
KP-NR-CC-5	9	12	12	1.5	1.5	15	15	10	76

Table. IV.40 Class Interval and Respective Scores for Quantitative Traits of *Lagerstroemia flos reginae* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
11.8-12.4	6	4.8-6.0	6	0.91-0.99	6	5.0-6.0	6	1-2	6
12.5-13.1	7	6.1-7.3	7	1.0-1.08	7	6.1-7.1	7	3-4	7
13.2-13.8	8	7.4-8.6	8	1.09-1.17	8	7.2-8.2	8	5-6	8
13.9-14.5	9	8.7-9.9	9	1.18-1.26	9	8.3-9.3	9	7-8	9
14.6-15.2	10	10.0-11.2	10	1.27-1.35	10	9.4-10.4	10	9-10	10

Table. IV.41 Scored data of New and Existing Trees of *Lagerstroemia flos reginae* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-LF-1	6	7	6	7	8	10	10	10
KP-NR-LF-2	7	10	8	6	9	10	10	10
KP-NR-LF-3	10	6	7	6	9	10	10	10
KP-NR-LF-4	9	8	10	10	8	10	10	10
KP-NR-LF-5	7	10	7	7	10	10	10	10
KP-NR-LF-6	6	7	7	7	8	10	10	10
KP-NR-LF-7	7	6	7	7	8	10	10	10

Table. IV.42 Weightage Score for Each Trait of New and Existing Trees of *Lagerstroemia flos reginae* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-LF-1	9	14	12	1.75	2	15	15	10	78.75
KP-NR-LF-2	10.5	20	16	1.5	2.25	15	15	10	90.25
KP-NR-LF-3	15	12	14	1.5	2.25	15	15	10	84.75
KP-NR-LF-4	13.5	16	20	2.5	2	15	15	10	94
KP-NR-LF-5	10.5	20	14	1.75	2.5	15	15	10	88.75
KP-NR-LF-6	9	14	14	1.75	2	15	15	10	80.75
KP-NR-LF-7	10.5	12	14	1.75	2	15	15	10	80.25

Table. IV.43 Class Interval and Respective Scores for Quantitative Traits of *Michelia champaca* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
15.8-17.6	6	8.8-10.4	6	1.23-1.37	6	4.6-5.6	6	2-3	6
17.7-19.5	7	10.5-12.1	7	1.38-1.52	7	5.7-6.7	7	4-5	7
19.6-21.4	8	12.2-13.8	8	1.53-1.67	8	6.8-7.8	8	6-7	8
21.5-23.3	9	13.9-15.5	9	1.68-1.82	9	7.9-8.9	9	8-9	9
23.4-25.2	10	15.6-17.2	10	18.3-1.97	10	9.0-10.0	10	10-11	10

Table. IV. 44 Scored data of New and Existing Trees of *Michelia champaca* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-MC-1	6	7	8	8	7	10	10	10
KP-NR-MC-2	8	9	8	10	8	10	10	10
KP-NR-MC-3	9	10	7	7	9	10	10	10
KP-NR-MC-4	8	10	10	8	9	10	10	10
KP-NR-MC-5	7	8	10	8	7	10	10	10
KP-NR-MC-6	9	10	9	8	7	10	10	10
KP-NR-MC-7	8	10	9	9	9	10	10	10
KP-NR-MC-8	7	8	8	7	8	10	10	10
KP-NR-MC-9	7	7	7	7	8	10	10	10
KP-NR-MC-10	8	9	7	6	8	10	10	10
KP-NR-MC-11	9	9	6	6	8	10	10	10
KP-NR-MC-12	8	9	8	8	8	10	10	10
KP-NR-MC-13	7	7	8	9	9	10	10	10
KP-NR-MC-14	6	6	8	8	10	10	10	10
CHUR-MC-1	10	9	10	6	10	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.45 Weightage Score for Each Trait of New and Existing Trees of *Michelia champaca* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-MC-1	9	14	16	2	1.75	15	15	10	82.75
KP-NR-MC-2	12	18	16	2.5	2	15	15	10	90.5
KP-NR-MC-3	13.5	20	14	1.75	2.25	15	15	10	91.5
KP-NR-MC-4	12	20	20	2	2.25	15	15	10	96.25
KP-NR-MC-5	10.5	16	20	2	1.75	15	15	10	90.25
KP-NR-MC-6	13.5	20	18	2	1.75	15	15	10	95.25
KP-NR-MC-7	12	20	18	2.25	2.25	15	15	10	94.5
KP-NR-MC-8	10.5	16	16	1.75	2	15	15	10	86.25
KP-NR-MC-9	10.5	14	14	1.75	2	15	15	10	82.25
KP-NR-MC-10	12	18	14	1.5	2	15	15	10	87.5
KP-NR-MC-11	13.5	18	12	1.5	2	15	15	10	87
KP-NR-MC-12	12	18	16	2	2	15	15	10	90
KP-NR-MC-13	10.5	14	16	2.25	2.25	15	15	10	85
KP-NR-MC-14	9	12	16	2	2.5	15	15	10	81.5
CHUR-MC-1	15	18	20	1.5	2.5	15	15	10	97

** The bold text are of New Selected Plus Trees*

Table. IV.46 Class Interval and Respective Scores for Quantitative Traits of *Michelia excelsa* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
7.8-9.8	6	4.8-6.0	6	0.88-0.99	6	3.8-5.0	6	4-5	6
9.9-11.9	7	6.1-7.3	7	1.00-1.11	7	5.1-6.3	7	6-7	7
12.0-14.0	8	7.4-8.6	8	1.12-1.23	8	6.4-7.6	8	8-9	8
14.1-16.1	9	8.7-9.9	9	1.24-1.35	9	7.7-8.9	9	10-11	9
16.2-18.2	10	10.0-11.2	10	1.36-1.48	10	9.0-10.2	10	12-13	10

Table. IV. 47 Scored data of New and Existing Trees of *Michelia excelsa* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
ALG-PNK-ME-1	7	6	8	7	9	10	10	10
ALG-PNK-ME-2	9	6	9	7	9	10	10	10
ALG-PNK-ME-3	6	8	9	10	7	10	10	10
LAVA-ME-1	9	9	8	7	9	10	7	10
LAVA-ME-2	10	6	10	7	10	10	7	10
LAVA-ME-3	10	10	9	7	10	10	7	10
LAVA-ME-4	8	10	7	7	10	10	7	10
LAVA-ME-5	10	10	7	8	8	10	7	10
LAVA-ME-8	9	10	6	6	9	7	7	10
LAVA-ME-6	8	6	9	6	10	10	7	10

** The bold text are of New Selected Plus Trees*

Table. IV.48 Weightage Score for Each Trait of New and Existing Trees of *Michelia excels* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
ALG-PNK-ME-1	10.5	12	16	1.75	2.25	15	15	10	82.5
ALG-PNK-ME-2	13.5	12	18	1.75	2.25	15	15	10	87.5
ALG-PNK-ME-3	9	16	18	2.5	1.75	15	15	10	87.25
LAVA-ME-1	13.5	18	16	1.75	2.25	15	10.5	10	87
LAVA-ME-2	15	12	20	1.75	2.5	15	10.5	10	86.75
LAVA-ME-3	15	20	18	1.75	2.5	15	10.5	10	92.75
LAVA-ME-4	12	20	14	1.75	2.5	15	10.5	10	85.75
LAVA-ME-5	15	20	14	2	2	15	10.5	10	88.5
LAVA-ME-8	13.5	20	12	1.5	2.25	10.5	10.5	10	80.25
LAVA-ME-6	12	12	18	1.5	2.5	15	10.5	10	81.5

** The bold text are of New Selected Plus Trees*

Table. IV.49 Class Interval and Respective Scores for Quantitative Traits of *Shorea robusta* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-20.2	6	7.8-10.6	6	1.22-1.57	6	3.9-4.9	6	2-3	6
20.3-22.7	7	10.7-13.5	7	1.58-1.93	7	5.0-6.0	7	4-5	7
22.8-25.2	8	13.6-16.4	8	1.94-2.29	8	6.1-7.1	8	6-7	8
25.3-27.7	9	16.5-19.3	9	2.30-2.65	9	7.2-8.2	9	8-9	9
27.8-30.2	10	19.4-22.2	10	2.66-3.01	10	8.3-9.3	10	10-11	10

Table. IV.50 Scored data of New and Existing Trees of *Shorea robusta* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-SR-1	7	8	6	6	7	10	10	10
KP-NR-SR-2	8	9	6	6	7	10	10	10
KP-NR-SR-3	8	8	6	7	8	10	10	10
KP-NR-SR-4	6	8	6	7	8	10	10	10
KP-NR-SR-5	6	7	6	6	9	10	10	10
KP-NR-SR-6	7	7	7	10	8	10	10	10
KP-NR-SR-7	6	6	6	7	9	10	10	10
CHURA-SR-1	10	10	10	8	10	10	10	10

** The bold text are of New Selected Plus Trees*

Table No. IV.51 Weightage Score for Each Trait of New and Existing Trees of *Shorea robusta* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-SR-1	10.5	16	12	1.5	1.75	15	15	10	81.75
KP-NR-SR-2	12	18	12	1.5	1.75	15	15	10	85.25
KP-NR-SR-3	12	16	12	1.75	2	15	15	10	83.75
KP-NR-SR-4	9	16	12	1.75	2	15	15	10	80.75
KP-NR-SR-5	9	14	12	1.5	2.25	15	15	10	78.75
KP-NR-SR-6	10.5	14	14	2.5	2	15	15	10	83
KP-NR-SR-7	9	12	12	1.75	2.25	15	15	10	77
CHURA-SR-1	15	20	20	2	2.5	15	15	10	99.5

** The bold text are of New Selected Plus Trees*

Table. IV.52 Class Interval and Respective Scores for Quantitative Traits of *Tectona grandis* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
16.8-19.0	6	1.8-4.6	6	0.96-1.14	6	2.9-3.9	6	1-3	6
19.1-21.3	7	4.7-7.5	7	1.15-1.33	7	4.0-5.0	7	4-6	7
21.4-23.6	8	7.6-10.4	8	1.34-1.52	8	5.1-6.1	8	7-9	8
23.7-25.9	9	10.5-13.3	9	1.53-1.71	9	6.2-7.2	9	10-12	9
26.0-28.2	10	13.4-16.2	10	1.72-1.90	10	7.3-8.3	10	13-15	10

Table. IV.53 Scored data of New and Existing Trees of *Tectona grandis* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-TG-1	7	10	6	7	7	10	10	10
KP-NR-TG-2	6	9	7	7	7	10	10	10
KP-NR-TG-3	6	10	7	6	6	10	10	10
KP-NR-TG-4	7	10	6	7	7	10	10	10
KP-NR-TG-5	6	10	6	8	7	10	10	10
KP-NR-TG-6	7	7	9	10	7	10	10	10
KP-JD-TG-1	7	10	9	7	7	10	10	10
KP-JD-TG-2	6	9	9	7	8	10	10	10
KP-JD-TG-3	7	6	8	9	10	10	10	10
KP-JD-TG-4	6	8	8	7	7	10	10	10
KHUM-TG-1	10	6	10	7	9	10	7	10
KHUM-TG-2	10	6	10	7	10	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.54 Weightage Score for Each Trait of New and Existing Trees of *Tectona grandis* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-TG-1	10.5	20	12	1.75	1.75	15	15	10	86
KP-NR-TG-2	9	18	14	1.75	1.75	15	15	10	84.5
KP-NR-TG-3	9	20	14	1.5	1.5	15	15	10	86
KP-NR-TG-4	10.5	20	12	1.75	1.75	15	15	10	86
KP-NR-TG-5	9	20	12	2	1.75	15	15	10	84.75
KP-NR-TG-6	10.5	14	18	2.5	1.75	15	15	10	86.75
KP-JD-TG-1	10.5	20	18	1.75	1.75	15	15	10	92
KP-JD-TG-2	9	18	18	1.75	2	15	15	10	88.75
KP-JD-TG-3	10.5	12	16	2.25	2.5	15	15	10	83.25
KP-JD-TG-4	9	16	16	1.75	1.75	15	15	10	84.5
KHUM-TG-1	15	12	20	1.75	2.25	15	10.5	10	86.5
KHUM-TG-2	15	12	20	1.75	2.5	15	15	10	91.25

** The bold text are of New Selected Plus Trees*

Table. IV.55 Class Interval and Respective Scores for Quantitative Traits of *Terminalia myriocarpa* in Kalimpong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.8-15.0	6	2.3-4.4	6	1.15-1.72	6	3.8-6.6	6	1-3	6
15.1-16.3	7	4.5-6.6	7	1.73-2.30	7	6.7-9.5	7	4-6	7
16.4-17.6	8	6.7-8.8	8	2.31-2.88	8	9.6-12.4	8	7-9	8
17.7-18.9	9	8.9-11.0	9	2.89-3.46	9	12.5-15.3	9	10-12	9
19.0-20.2	10	11.1-13.2	10	3.47-4.04	10	15.4-18.2	10	13-15	10

Table . IV.56 Scored data of New and Existing Trees of *Terminalia myriocarpa* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-NR-TM-1	8	8	6	7	7	10	10	10
KP-NR-TM-2	6	9	6	7	8	10	10	10
KP-NR-TM-3	8	10	6	6	6	10	10	10
KP-NR-TM-4	10	10	6	6	7	10	10	10
KP-NR-TM-5	8	9	6	7	7	10	10	10
KP-NR-TM-6	6	9	6	7	8	10	10	10
KP-NR-TM-7	6	8	6	7	8	10	10	10
DULAP-TM-1	8	9	9	9	10	10	10	10
DULAP-TM-2	10	6	10	10	10	10	7	10
DULAP-TM-4	9	7	9	10	10	10	10	10
MAL-TM-1	10	6	7	7	8	7	10	10
MAL-TM-14	9	9	7	7	7	10	7	10

** The bold text are of New Selected Plus Trees*

Table. IV.57 Weightage Score for Each Trait of New and Existing Trees of *Terminalia myriocarpa* in Kalimpong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-NR-TM-1	12	16	12	1.75	1.75	15	15	10	83.5
KP-NR-TM-2	9	18	12	1.75	2	15	15	10	82.75
KP-NR-TM-3	12	20	12	1.5	1.5	15	15	10	87
KP-NR-TM-4	15	20	12	1.5	1.75	15	15	10	90.25
KP-NR-TM-5	12	18	12	1.75	1.75	15	15	10	85.5
KP-NR-TM-6	9	18	12	1.75	2	15	15	10	82.75
KP-NR-TM-7	9	16	12	1.75	2	15	15	10	80.75
DULAP-TM-1	12	18	18	2.25	2.5	15	15	10	92.75
DULAP-TM-2	15	12	20	2.5	2.5	15	10.5	10	87.5
DULAP-TM-4	13.5	14	18	2.5	2.5	15	15	10	90.5
MAL-TM-1	15	12	14	1.75	2	10.5	15	10	80.25
MAL-TM-14	13.5	18	14	1.75	1.75	15	10.5	10	84.5

** The bold text are of New Selected Plus Trees*

Table. IV.58 Class Interval and Respective Scores for Quantitative Traits of *Schima wallichii* in Kurseong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
17.8-20.2	6	2.8-6.8	6	1.03-1.59	6	2.8-6.2	6	3-4	6
20.3-22.7	7	6.9-10.9	7	1.60-2.16	7	6.3-9.7	7	5-6	7
2.8-25.4	8	11.0-15.0	8	2.17-2.73	8	9.8-13.2	8	7-8	8
25.5-27.9	9	15.1-19.1	9	2.74-3.30	9	13.3-16.7	9	9-10	9
28.0-30.4	10	19.2-23.2	10	3.31-3.87	10	16.8-20.2	10	11-12	10

Table. IV.59 Scored data of New and Existing Trees of *Schima wallichii* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KGN-BP-SW-1	10	9	7	7	9	10	10	10
KGN-BP-SW-2	10	10	8	8	10	10	10	10
KGN-BP-SW-3	8	9	6	6	7	10	10	10
KS-BR-UKND-SW-1	7	8	6	6	8	10	10	10
KS-BR-UKND-SW-2	7	8	6	6	6	10	10	10
KS-BR-UKND-SW-3	7	8	7	6	8	10	10	10
KS-BR-UKND-SW-4	8	8	6	6	8	10	10	10
KS-BR-UKND-SW-5	6	8	6	6	8	10	10	10
KS-BR-UKND-SW-6	6	8	6	6	6	10	10	10
KS-BR-UKND-SW-7	7	9	7	6	7	10	10	10
KS-BR-UKND-SW-8	6	7	6	6	8	10	10	10
UKUN/SW/4-2	9	6	7	7	8	10	10	10
UKUN/SW/5-1	10	6	10	10	10	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.60 Weightage Score for Each Trait of New and Existing Trees of *Schima wallichii* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KGN-BP-SW-1	15	18	14	1.75	2.25	15	15	10	91
KGN-BP-SW-2	15	20	16	2	2.5	15	15	10	95.5
KGN-BP-SW-3	12	18	12	1.5	1.75	15	15	10	85.25
KS-BR-UKND-SW-1	10.5	16	12	1.5	2	15	15	10	82
KS-BR-UKND-SW-2	10.5	16	12	1.5	1.5	15	15	10	81.5
KS-BR-UKND-SW-3	10.5	16	14	1.5	2	15	15	10	84
KS-BR-UKND-SW-4	12	16	12	1.5	2	15	15	10	83.5
KS-BR-UKND-SW-5	9	16	12	1.5	2	15	15	10	80.5
KS-BR-UKND-SW-6	9	16	12	1.5	1.5	15	15	10	80
KS-BR-UKND-SW-7	10.5	18	14	1.5	1.75	15	15	10	85.75
KS-BR-UKND-SW-8	9	14	12	1.5	2	15	15	10	78.5
UKUN/SW/4-2	13.5	12	14	1.75	2	15	15	10	83.25
UKUN/SW/5-1	15	12	20	2.5	2.5	15	15	10	92

** The bold text are of New Selected Plus Trees*

Table. IV.61 Class Interval and Respective Scores for Quantitative Traits of *Shorea robusta* in Kurseong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
19.8-22.2	6	15.8-17.0	6	1.15-1.54	6	3.8-6.6	6	1-2	6
22.3-24.7	7	17.1-18.3	7	1.55-1.94	7	6.7-9.5	7	3-4	7
24.8-27.2	8	18.4-19.6	8	1.95-2.34	8	9.6-12.4	8	5-6	8
27.3-29.7	9	19.7-20.9	9	2.35-2.74	9	12.5-15.3	9	7-8	9
29.8-32.2	10	21.0-22.2	10	2.75-3.14	10	15.4-18.2	10	9-10	10

able. IV.62 Scored data of New and Existing Trees of *Shorea robusta* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KS-BR-SR-1	7	8	6	6	9	**10**	**10**	**10**
KS-BR-SR-2	6	6	7	6	8	**10**	**10**	**10**
KS-BR-SR-3	6	7	7	6	8	**10**	**10**	**10**
KS-BR-SR-4	6	6	7	7	7	**10**	**10**	**10**
KS-BR-SR-5	6	6	7	6	8	**10**	**10**	**10**
KS-BR-SR-6	6	6	6	6	7	**10**	**10**	**10**
KS-BR-SR-7	6	6	6	6	7	**10**	**10**	**10**
KS-BR-SR-8	7	6	6	6	7	**10**	**10**	**10**
BAMON/SR/2	10	10	10	10	8	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.63 Weightage Score for Each Trait of New and Existing Trees of *Shorea robusta* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KS-BR-SR-1	10.5	16	12	1.5	2.25	15	15	10	82.25
KS-BR-SR-2	9	12	14	1.5	2	15	15	10	78.5
KS-BR-SR-3	9	14	14	1.5	2	15	15	10	80.5
KS-BR-SR-4	9	12	14	1.75	1.75	15	15	10	78.5
KS-BR-SR-5	9	12	14	1.5	2	15	15	10	78.5
KS-BR-SR-6	9	12	12	1.5	1.75	15	15	10	76.25
KS-BR-SR-7	9	12	12	1.5	1.75	15	15	10	76.25
KS-BR-SR-8	10.5	12	12	1.5	1.75	15	15	10	77.75
BAMON/SR/2	15	20	20	2.5	2	15	15	10	99.5

** The bold text are of New Selected Plus Trees*

Table. IV.64 Class Interval and Respective Scores for Quantitative Traits of *Tectona grandis* in Kurseong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
13.8-17.0	6	6.8-9.4	6	0.83-1.16	6	6.0-6.8	6	5	6
17.1-20.3	7	9.5-12.1	7	1.17-1.48	7	6.9-7.7	7	6	7
20.4-23.6	8	12.2-14.8	8	1.49-1.80	8	7.8-8.6	8	7	8
23.7-26.9	9	14.9-17.5	9	1.81-2.12	9	8.7-9.5	9	8	9
27.0-30.2	10	17.6-20.2	10	2.13-2.44	10	9.6-10.4	10	9	10

Table No. IV.65 Scored data of New and Existing Trees of *Tectona grandis* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KUR-PAN-TG-1	8	9	8	8	6	10	10	10
KUR-TUK-TG-2	10	10	6	8	6	10	10	10
KUR-TUK-TG-3	7	9	6	6	6	10	10	10
KS-BR-TG-1	8	7	8	6	6	10	10	10
BAMON/TG/1	6	7	10	8	9	10	10	10
BAMON/TG/5	6	6	10	10	10	7	7	10
BAMON/TG/7	6	7	9	7	6	7	7	10
BAMON/TG/8	6	7	9	6	6	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.66 Weightage Score for Each Trait of New and Existing Trees of *Tectona grandis* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KUR-PAN-TG-1	12	18	16	2	1.5	15	15	10	89.5
KUR-TUK-TG-2	15	20	12	2	1.5	15	15	10	90.5
KUR-TUK-TG-3	10.5	18	12	1.5	1.5	15	15	10	83.5
KS-BR-TG-1	12	14	16	1.5	1.5	15	15	10	85
BAMON/TG/1	9	14	20	2	2.25	15	15	10	87.25
BAMON/TG/5	9	12	20	2.5	2.5	10.5	10.5	10	77
BAMON/TG/7	9	14	18	1.75	1.5	10.5	10.5	10	75.25
BAMON/TG/8	9	14	18	1.5	1.5	15	15	10	84

** The bold text are of New Selected Plus Trees*

Table. IV.67 Class Interval and Respective Scores for Quantitative Traits of *Terminalia myriocarpa* in Kurseong Division

Height Intervals	Score	Clear Bole Height Intervals	Score	Girth at Breast Height Intervals	Score	Crown Width Intervals	Score	Number of Branches Intervals	Score
18.8-19.6	6	9.8-11.0	6	1.43-1.64	6	7.0-7.8	6	6	6
19.7-20.5	7	11.1-12.3	7	1.65-1.86	7	7.9-8.7	7	7	7
20.6-21.4	8	12.4-13.5	8	1.87-2.08	8	8.8-9.6	8	8	8
21.5-22.3	9	13.6-14.8	9	2.09-2.30	9	9.7-10.5	9	9	9
22.4-23.2	10	14.9-16.1	10	2.31-2.52	10	10.6-11.4	10	10	10

Table. IV.68 Scored data of New and Existing Trees of *Terminalia myriocarpa* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection
KP-BR-TM-1	8	10	7	8	10	10	10	10
KP-BR-TM-UKND-2	10	7	7	8	8	10	10	10
KP-BR-TM-UKND-3	9	8	6	8	6	10	10	10
KP-BR-TM-UKND-4	7	6	6	10	10	10	10	10
KP-BR-TM-UKND-5	6	6	7	6	8	10	10	10
KP-BR-TM-UKND-6	7	9	7	8	7	10	10	10
KP-BR-TM-UKND-7	6	7	6	7	6	10	10	10
KUND/TM/8/2	8	10	10	9	7	10	10	10
KUND/TM/9/3	8	10	9	8	7	10	10	10
KUND/TM/10	9	9	8	8	8	10	10	10

** The bold text are of New Selected Plus Trees*

Table. IV.69 Weightage Score for Each Trait of New and Existing Trees of *Terminalia myriocarpa* in Kurseong Division

Tree No.	Total Height	Clear Bole Height	Girth at Breast Height	Crown Width	Number of Branches	Stem Straightness	Stem Form	Infection	Total Score
KP-BR-TM-1	12	20	14	2	2.5	15	15	10	90.5
KP-BR-TM-UKND-2	15	14	14	2	2	15	15	10	87
KP-BR-TM-UKND-3	13.5	16	12	2	1.5	15	15	10	85
KP-BR-TM-UKND-4	10.5	12	12	2.5	2.5	15	15	10	79.5
KP-BR-TM-UKND-5	9	12	14	1.5	2	15	15	10	78.5
KP-BR-TM-UKND-6	10.5	18	14	2	1.75	15	15	10	86.25
KP-BR-TM-UKND-7	9	14	12	1.75	1.5	15	15	10	78.25
KUND/TM/8/2	12	20	20	2.25	1.75	15	15	10	96
KUND/TM/9/3	12	20	14	2	2.5	15	15	10	90.5
KUND/TM/10	15	14	14	2	2	15	15	10	87

** The bold text are of New Selected Plus Trees*