ESTIMATE FOR CARRYING OUT AVENUE PLANTATION FOR THE PROJECT "REHABILITATION AND UPGRADATION TO 2 LANE WITH PAVED SHOULDERS OF SELING-DULTE SECTION OF NH-06"

1.	Project name	:	Rehabilitation and Upgradation to 2 lane with paved shoulders of Seling-Dulte section of NH-06
2.	Species proposed to be planted	:	*Delonix regia, Mesua ferrea, Artocarpus heterophyllus, Duabanga grandiflora,Michelia champaca, Ligustrum robustum, Bischofia javanica, Cassia javanica Terminalia myriocarpa, etc*
3.	Implementing Agency	:	Environment, Forests & Climate Change Department, Mizoram; Champhai Forest Division
4.	Time scheduled	:	Advanced work, creation of plantation and maintenance upto 10 years

(Rs. 380 /- per manday) ***(1000 plants per 3 km which is taken as 1 hectare)***

(Spacing 3m)

Sl. No.	Item of works	Mandays required (In No.)	Labour component (In Rs.)	Material component (in Rs)	Total cost per Hectare (in Rs)
1	2	3	4	5	6
1.	**Advance Works including Nursery.**				
	(a) Survey and demarcation nursery site and planting site	12	4560	-	4560
	(b) Preparation of nursery bed, shed erection with netlon	20	7600	-	7600
	(c) Cost of seed	-	-	2700	2700
	(d) Cost of materials like poly bags, shade nets, fertilizers, etc.	-	-	8100	8100
	(e) Pre-treatment of seeds including cost of fungicides, fumigants, soil sterilants, etc	17	6460	-	6460
	(f) Sowing of seeds, weeding, watering, etc.	16	6080	-	6080
	(g) Fire protection	5	1900	-	1900
	Sub-Total	**70**	**26600**	**10800**	**37400**
2.	**Creation of plantation**				
	(a) Alignment, preparation of stakes, digging of pits, preparation of planting materials, carriage to planting sites, planting/sowing, construction of camp sheds, inspection parts, signboards and other misc. works	40	15200	-	15200
	(b) Weeding 4 times including vacancy filling (30+20+20+20)	90	34200	-	34200
	(c) Fire protection measures and ward and watch(5+5)	10	3800	-	3800
	(d) Manuring & watering	10	3800	-	3800
	(e) Cost of manures/fertilizers			5400	5400
	(f) Fencing /tree guard (Local materials) including subsequent maintenance.	-	-	37800	37800
	Sub-Total	**150**	**57000**	**43200**	**100200**
3	**Maintenance of plantation**	-	-	-	-
	(I) Maintenance after one year	-	-	-	-
	(a) Weeding 3 times including vacancy filling , manuring & watering (20+20+20+10)	70	26600	-	26600
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Cost of manures/fertilizers	-	-	5400	5400

	(d) Signboard and labeling etc	-	-	5400	5400
	Sub-Total	**80**	**30400**	**10800**	**41200**
	(II) Maintenance after two years				
	(a) Weeding 3 times vacancy filling , manuring & watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Cost of fertilizers/manures	-	-	5400	5400
	(d) Add 25% of 3(ii) column 4 total labour component for anticipated revision of wage rate	-	-	-	5700
	Sub-Total	**60**	**22800**	**5400**	**33900**
	(III) Maintenance after three years				
	(a) Weeding 3 times vacancy filling , manuring& Watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	(c) Cost of fertilizers/manures	-	-	5400	5400
	(d) Add 25% of 3(iii) column 4 total labour component for anticipated revision of wage rate	-	-	-	5700
	Sub-Total	**60**	**22800**	**5400**	**33900**
	(IV) Maintenance after four years				
	(a) Weeding 3 times vacancy filling , manuring & watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Cost of fertilizers/manures			5400	5400
	(d) Add 50% of 3(iv) column 4 total labour component for anticipated revision of wage rate	-	-	-	11400
	Sub-Total	**60**	**22800**	**5400**	**39600**
	(V) Maintenance after five years				
	(a) Weeding 3 times vacancy filling , manuring & watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	(c) Add 50% of 3(v) column 4 total labour component for anticipated revision of wage rate	-	-	-	11400
	Sub-Total	**60**	**22800**	**-**	**34200**
	(VI) Maintenance after six years	-	-	-	-
	(a) Weeding 3 times vacancy filling , manuring & watering (15+15+10+10)	50	19000	-	19000
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Add 75% of 3(vi) column 4 total labour component for anticipated revision of wage rate	-	-	-	17100
	Sub-Total	**60**	**22800**	**-**	**39900**
	(VII) Maintenance after seven years	-	-	-	-
	(a) Weeding 3 times vacancy filling & manuring & watering (15+15+10)	40	15200	-	15200
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
3	(c) Add 75% of 3(vii) column 4 total labour component for anticipated revision of wage rate	-	-	-	14250
	Sub-Total	**50**	**19000**	**-**	**33250**
	(VIII) Maintenance after eight years	-	-	-	
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures, & watch and	10	3800	-	3800

	ward(5+5)				
	(c) Add 100% of 3(viii) column 4 total labour component for anticipated revision of wage rate				15200
	Sub-Total	**40**	**15200**		**30400**
	(IX) Maintenance after nine years				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Add 100% of 3(ix) column 4 total labour component for anticipated revision of wage rate	-	-	-	15200
	Sub-Total	**40**	**15200**		**30400**
	(X) Maintenance after ten years				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800	-	3800
	(c) Add 100% of 3(x) column 4 total labour component for anticipated revision of wage rate	-	-	-	15200
	Sub-Total	**40**	**15200**		**30400**
	TOTAL OF PLANTATION COST	**770**	**292600**	**81000**	**484750**
4	Soil & Moisture Conservation measures including construction of check dams, gully plugging, contour trenching, water harvesting structures etc. whatever necessary within the project area (15% of plantation cost)	-	-	-	72712
5	Fencing (5% of plantation cost)	-	-	-	24237
6	Monitoring & Evaluation (2% of plantation cost)	-	-	-	9695
7	Overheads (10% of plantation cost)	-	-	-	48475
	Grand Total	-	-	-	**639869**

Length of the proposed road for diversion of forest land for Rehabilitation and Up-gradation to 2-lane with paved shoulders of Seling-Dulte section (Economic Corridor) of NH-6 under Champhai Division (*For 3m spacing, 1000 plants could be planted on 3 kms*) =

S.no	Component breakup	
1	Design chainage km 49.132 to 53.960	4.828 km

Total length = **4828 m**

No. of seedlings to be planted (3m spacing) = $\frac{4828}{3}$

= **1609.33 or Say 1609**

Area (1000 plants is taken as 1 ha) = $\frac{1609}{1000}$

= **1.609 ha**

Total Cost of raising Avenue Plantation = **1.609 x 639869**

= **Rs 10,29,549.22 or Say, Rs 10,29,549/-**

(Rupees ten lakh, twenty nine thousand five hundred and forty nine only)

(LALDUHTHLANA)

Divisional Forest Officer
Champhai Forest Division
Champhai : Mizoram