ESTIMATE FOR CARRYING OUT AVENUE PLANTATION ALONG NH-302 & NH 54 (A) FOR THE CONSTRUCTION OF 2 – LANING WITH HARD SHOULDER CONFIGURATION OF NH 302 & NH 54 (A) FROM LUNGLEI - TLABUNG

1. Project Name : Construction of 2 – laning with hard shoulder configuration of NH 302 & NH 54 (a) from Lunglei - Tlabung

2. Species proposed to be Planted :
   Delonix regia
   Messua ferrea
   Artocarpus heterophyllus
   Mangifera indica
   Azadirachta indica
   Ligustrum robustum
   Bischofia javanica
   Cassia javanica

3. Implementing Agency : Environment, Forests & Climate Change Department, Mizoram

4. Time scheduled : Advanced work ,creation of plantation and maintenance upto 6 years

(Rs. 380 /- per manday) ***(1000 plants per 3 km which is taken as 1 hectare)***
(Spacing 3X3 m)

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, netlon and fertilizers etc	-	-	8100	8100
	(e) Pre-treatment of seeds including cost of fungicides, fumigants, soil sterilants, etc	17	6460	-	6460
	(f) Sowing of seeds and weeding, watering	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**

	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
	Sub-Total	**60**	**22800**	**5400**	**28200**
	(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
	Sub-Total	**60**	**22800**	**5400**	**28200**
	(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
	Sub-Total	**60**	**22800**	**5400**	**28200**
3	**(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
	Sub-Total	**60**	**22800**		**22800**
	(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
	Sub-Total	**60**	**22800**		**22800**
	(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
	Sub-Total	**50**	**19000**		**19000**
	(VIII) Maintenance after eight years				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	Sub-Total	**40**	**15200**		**15200**
	(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
	Sub-Total	**40**	**15200**		**15200**
	(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
	Sub-Total	**40**	**15200**		**15200**
	TOTAL OF PLANTATION COST	**770**	**292600**	**81000**	**373600**

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)				56040
5	Fencing (5% of plantation cost)				18680
6	Monitoring & Evaluation (2% of plantation cost)				7472
7	Overheads (10% of plantation cost)				37360
	Grand Total				**493152**

Length of the proposed road for diversion of forest land for Construction of 2 – laning with hard shoulder configuration of NH 302 & NH 54 (a) from Lunglei - Tlabung *(For 3 x 3m spacing, 1000 plants could be planted on 3 kms)* under Lunglei Forest Division is

COMPONENT BREAKUP		
S.no	**Component**	**Length of forest land (in kms)**
1	Road Ch. Km 23.300 to km 24.300	1.000
	TOTAL	**1.000**

Total length = 1.000 km
= 1000 m

Seedlings to be planted (3m x 3m spacing) $= \frac{1000}{3}$
= 333.33 or say 334

Area (1000 plants is taken as 1 ha) $= \frac{334}{1000}$
= .334 ha

Total Cost of raising Avenue Plantation = .334 x 493152
= 164712.768 Or Say Rs 1,64,713.

(Rupees one lakh sixty four thousand seven hundred and thirteen only)

c/signed

Sinha 20/6/22

R.S. SINHA
APCCF & NO (FC)

Prepared by-

20/6/22

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