

# 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)**  
**(Spacing 3X3 m)**

**(1000 plants per 3 km which is taken as 1 hectare)**

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.	<b>Advance Works including Nursery.</b>				
	(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
<b>Sub-Total</b>		<b>70</b>	<b>26600</b>	<b>10800</b>	<b>37400</b>
2.	<b>Creation of plantation</b>				
	(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
	<b>Sub-Total</b>	<b>150</b>	<b>57000</b>	<b>43200</b>	<b>100200</b>

	<b>Maintenance of plantation</b>				
	<b>(I) Maintenance after one year</b>				
	(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
	<b>Sub-Total</b>	<b>80</b>	<b>30400</b>	<b>10800</b>	<b>41200</b>
	<b>(II) Maintenance after two years</b>				
	(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
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(III) Maintenance after three years</b>				
	(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
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
	<b>(IV) Maintenance after four years</b>				
	(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
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>	<b>5400</b>	<b>28200</b>
3	<b>(V) Maintenance after five years</b>				
	(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
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VI) Maintenance after six years</b>				
	(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
	<b>Sub-Total</b>	<b>60</b>	<b>22800</b>		<b>22800</b>
	<b>(VII) Maintenance after seven years</b>				
	(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
	<b>Sub-Total</b>	<b>50</b>	<b>19000</b>		<b>19000</b>
	<b>(VIII) Maintenance after eight years</b>				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>40</b>	<b>15200</b>		<b>15200</b>
	<b>(IX) Maintenance after nine years</b>				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>40</b>	<b>15200</b>		<b>15200</b>
	<b>(X) Maintenance after ten years</b>				
	(a) Weeding 3 times (10+10+10)	30	11400	-	11400
	(b) Fire protection measures & watch and ward(5+5)	10	3800		3800
	<b>Sub-Total</b>	<b>40</b>	<b>15200</b>		<b>15200</b>
	<b>TOTAL OF PLANTATION COST</b>	<b>770</b>	<b>292600</b>	<b>81000</b>	<b>373600</b>

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
<b>Grand Total</b>					<b>493152</b>

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
<b>TOTAL</b>		<b>1.000</b>

$$\begin{aligned} \text{Total length} &= 1.000 \text{ km} \\ &= 1000 \text{ m} \end{aligned}$$

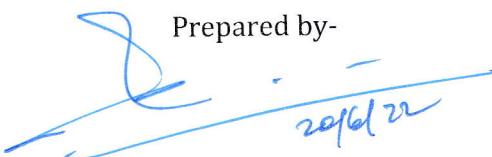
$$\begin{aligned} \text{Seedlings to be planted} &= \frac{1000}{3} \\ (\text{3m x 3m spacing}) &= 333.33 \text{ or say } 334 \end{aligned}$$

$$\begin{aligned} \text{Area (1000 plants is taken as 1 ha)} &= \frac{334}{1000} \\ &= .334 \text{ ha} \end{aligned}$$

$$\begin{aligned} \text{Total Cost of raising Avenue Plantation} &= .334 \times 493152 \\ &= 164712.768 \text{ Or Say Rs } 1,64,713. \end{aligned}$$

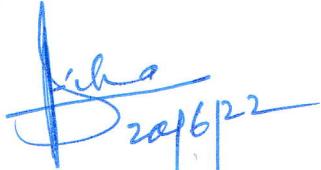
(Rupees one lakh sixty four thousand seven hundred and thirteen only)

Prepared by-



(PC LALCHANDAMA)  
Divisional Forest Officer  
Lunglei Forest Division

✓ signed



R.S. SINHA  
APCCF & NO (FC)