

*Revised CA scheme for 21.50 Ha Raising of NTSH Plantation in double degraded Forest Land at Compt.No.313, Mukamamidi Beat of Pogallapally Forest Block of Mulakalapally Range of Paloncha Division in lieu of diversion of forest land under FC Act, 1980 to an extent of 29.6878 Ha for erection of 400 KV QMDC line from the proposed 1x800MW Power Plant in KTS (Pal) to the proposed 400/220 K.V.S.S at Padamati Narsapuram (V), Julurupadu(M) in Khammam District in which (1) 19.186 Ha of forest land of Chatakonda RF block in Kothagudem Forest Division (2) 10.50189 Ha of forest land in Chatakonda Punukula RF in Paloncha WLM Division.*

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**Revised Compensatory Afforestation Scheme for 21.50 Ha double degraded Forest Land at Compt.No.313, Mukamamidi Beat of Pogallapally Forest Block of Mulakalapally Range of Paloncha Division**

**Introduction :**

The District Forest Officer, Bhadradi Kothagudem has informed that the CA proposals for diversion of forest land under FC Act, 1980 to an extent of 29.6878 Ha for erection of 400 KV QMDC line from the proposed 1x800MW Power Plant in KTS (Pal) to the proposed 400/220 K.V.S.S at Padamati Narsapuram (V), Julurupadu(M) in Khammam District in which (1) 19.186 Ha of forest land of Chatakonda RF block in Kothagudem Forest Division (2) 10.50189 Ha of forest land in Chatakonda & Punukula RF in Paloncha WLM Division including Eco Sensitive Zone proposals have been submitted by the then Conservator of Forests, Khammam to the Prl. Chief Conservator of Forests, T.S., Hyderabad. The District Forest Officer, Bhadradi Kothagudem has also informed that on scrutiny of proposals the Prl. Chief Conservator of Forests, T.S., Hyderabad vide his Rc.No.18872/2015/FCA-3, Dt:22-12-2016 has observed that the area identified for CA is having growth and issued instructions to identify alternative site with density less than 0.4 and prepare the CA Scheme for 7 to 10 years maintenance immediately.

Accordingly instructions were issued by Forest Divisional Officer, Paloncha to the Forest Range Officer, Mulakalapally to identify the degraded forest land in lieu of diversion of forest land to an extent of 10.50189 Ha of Forest Land in Chatakonda & Punukula RF in Paloncha WLM Division for erection of 400 KV QMDC line from the proposed power plant in KTS. Accordingly, the Forest Range Officer, Mulakalapally was identified the following degraded forest area. The details are as follows.

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Sl. No.	Range	Block	Section	Beat	Compt. No.	Area available (in Ha)
1	2	3	4	5	6	7
1	Mulakalapally	Pogallapally	Mutylampadu	Mukamamidi	313	21.50
	<b>Total :</b>					<b>21.50</b>

**Description :**

In order to improve of Natural Forests in degraded patches, 21.50 Ha area was identified in compt.No.313 of Mukamamidi Beat of Mulakalapally Range. The following activities have to be taken up to improve the degraded forests under Labour Intensive Method(LIM).

**Planting Technique:-**

It is proposed to raise NTSH seedlings keeping in view the soil suitability and management point of view an extent of 21.50 Ha NTSH plantation is proposed to be raised from 2017-18 to 2028-29.

**In addition to the above the following activities are proposed in degraded Forest Land:**

- 1. Digging of Cattle Proof trench (CPT) :** The peripheral trench work is proposed with a specification of Top width-1.5M X Bottom width-1.00M X Depth-1M) around the periphery of the CA area.
- 2. Stabilization of Bund:** The trench stabilization by vegetative means is proposed with the method as per Circular No.1/2016. The Planting with Pongamia in 30 Cm<sup>3</sup>, 1 row of Bamboo Rhizome at midline of inner slope of the mound at 4 m apart and Planting 3 rows of fast-growing secondary hardwood species or its associates of local origin with an espacement of 3x2 m Gachakaya seed will be sown in 2 rows on the outer slope of the mound.
- 3. Raising of misc. nursery:** The seedlings suitable for soil with (2) year old are to be raised for planting during 2018-19.
- 4. Taking up advance operations:** The plantation under this programme is proposed to be raised by adopting Labour Intensive Method like clearance of NTSH growth during 2017-18.



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**5. Raising of plantations:** The planting will be taken in forest land with an espacement proposed is 3M x 3M - 1111 plants/ Ha, with operations like circular weeding, Circular weeding cum deep soil working, cutting of coppice with 2 times, Cost of Chemical fertilizers, Application of fertilizers and Maintenance of plantations upto (12) years as per calendar operations.

**6. Planting Agave suckers:** It is proposed to plant agave suckers (1000 Nos.) along the sides of the proposed Transmission Line at an interval of 2 mtrs.

It is proposed to take up the above activities in compt.No.313, Mukamamidi Beat of Mulakalapally Range of Paloncha Division with an outlay of Rs.**135.004 Lakhs**. The details are furnished hereunder.

Sl. No.	Item of work	Amount (Rs.in Lakhs)
1	Digging of cattle Proof trench of 1.5 m top width, 1m bottom width and 1.00 m depth with a septa of 1m wide	0.850
2	Stabilization of Bund	0.300
3	Raising of NTSB seedlings	11.781
4	Maintenance of NTSB seedlings	0.546
5	Advance operations	2.421
6	Raising of NTSB Plantation	14.355
7	1 <sup>st</sup> year Maintenance of plantations	7.955
8	2 <sup>nd</sup> to 10 <sup>th</sup> year maintenance of plantations	78.853
9	Establishment of nursery	4.000
10	Soil and Moisture Conservation works	2.400
11	Planting agave suckers at 0.5m	0.100
12	Dibbling palmyrah nuts @3m apart	0.396
13	Civil Engineer on contract for SMC works for (6) months	0.600
14	Entry point Activities (a) Trainings and capacity buildings	1.000
	(b)Micro Plan preparation	0.300
15	Miscellaneous expenses / Administrative costs	2.500
16	Establishment and other logistic support for Monitoring reporting and data logging	4.000
	<b>Sub Total :</b>	<b>132.357</b>
	2% Administrative cost	2.647
	<b>Grand Total:</b>	<b>135.004</b>



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**Project Period :**

It is proposed to implement the scheme from 2017-18 to 2028-29 over a period of (12) years.

**Funding Agency :**

The total financial out lay met by the user agency i.e., Chief Engineer, TRANSCO, Vidyut Soudha, Hyderabad who will deposit the funds with the Forest Department.

**Project implementing Agency :**

The Forest Divisional Officer, Paloncha will be the implementing agency for this scheme.

**Cost of Structure :**

Basic rates proposed as per FSR of 2016-17 and 10% price escalation is proposed every year over the basic rates of FSR of 2016-17.


**Cost of the Scheme Project :**

Total cost of the project work out of **Rs. 135.004** Lakhs from 2017-18 to 2028-29 as shown below.

Sl. No.	Item of work	Area in Ha.	Rate	Amount (Rs. In lakhs)
1	Raising of NTSH plantation and 12 years maintenance)	21.50 Ha	<b>6.27926</b>	135.004

**Employment Generation:**

The project is located in Mulakalapally Mandal Agency Area. The local labour mostly Tribal and SCs will be benefited by implementation of this project. The employment generation expected to be created is 30838 Man-days during the project period from 2017-18 to 2028-2029.

  
Forest Divisional Officer,  
Paloncha.

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**COMPENSATORY AFFORESTATION SCHEME FOR 21.50 Ha DOUBLE DEGRADED FOREST LAND AT COMPT.NO.313, MUKAMAMIDI BEAT OF POGALLAPALLY FOREST BLOCK OF MULAKALAPALLY RANGE OF PALONCHA DIVISION**

Sl No	Component	Unit cost as per the FSR 2016-17 (Rs. In lakhs)	Unit	2016-17			2017-18			2018-19			2019-20			2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			Total		
				Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Fin.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
I	Digging of cattle Proof trench of 1.5 m top width, 1m bottom width and 1.00 m depth with a septa of 1m wide for every 10m running trench around the periphery of CA area	42.40	Cmt	0	42.40	0	1823	46.64	0.850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1823	0.850		
2	Stabilization of Bund as per Circular No.1/2016 issued by the Pr.C.C.F., TS, Hyderabad	0.166	KMs	0	0.166	0	1.641	0.183	0.300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.64	0.300	
	Sub Total(I):					0			1.150			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000		0.000	0.000	1.150		
II Afforestation in Degraded Forest Area.																																													
	LABOUR INTENSIVE METHOD																																												
A	Preliminary operations (Advance operations)																																												
1	Raising of Misc. seedlings (like., NTSH, NTFP & Babmoo etc., species) Primary and Bag plants Nursery (8"x12" size bags/800 bags / bed)(Bamboo - 10.00 Ha - 600 /Ha, NTSH - 30.00 Ha - 1700 / Ha & NTFP - 13.04 ha - 1700 /Ha = 4000 Seedlings / Ha) 5 Beds /Ha = 265 Beds.	0.210	Bed	0	0	0	40	0.23	9.24	10	0.254	2.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	11.781	
2	One Year Maintenance of Misc. seedlings (like., NTSH, NTFP & Babmoo etc., species) Primary and Bag plants Nursery (8"x12" size bags/800 bags / bed - 2.50 beds / 1 ha)(Bamboo - 10.00 Ha - 600 /Ha, NTSH - 30.00 Ha - 1700 / Ha & NTFP - 13.04 ha - 1700 /Ha = 4000 Seedlings / Ha) 5 Beds /Ha = 265 Beds. (Rs. 2000/ 4 months = Rs. 6000 / Year / Bed.	0.009	Bed	0	0	0	0	0	40	0.0106	0.42	10	0.0122	0.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0.546	
4	Advance site preparation works for Raising of NTSH plantation under Labour Intensive Method at an espacement of 3mx3m (1111 plants per ha) (21.00 Ha)	0.102	Ha	0	0.102	0.00	21.50	0.113	2.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.50	2.421
	Sub-total (IVA)					0.00			11.66	0		2.97			0.12	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00			0.00			0.00		0.00		0.00	121.50	14.748
B Creation (Raising year)																																													
5	Raising of NTSH plantation under Labour Intensive Method at an espacement of 3mx3m (1111 plants per ha) (21.00 Ha)	0.552	Ha	0	0.552	0	0	0.607	0	21.50	0.668	14.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.50	14.355	
	Sub-total (IVB)					0	0		0.00	21.50		14.36	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	21.50	14.355	
C Maintenance of Plantations																																													
6	Maintenance of NTSH plantation under Labour Intensive Method at an espacement of 3mx3m (1111 plants per ha) (21.00 Ha) (1st year)	0.278	Ha		0.278	0.00		0.31	0.00		0.336	0	21.50	0.370	7.955	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.50	7.955	
7	Maintenance of NTSH plantation under Labour Intensive Method at an espacement of 3mx3m (1111 plants per ha) (21.00 Ha) (2nd to 10th Year maintenance)	0.184	Ha		0.184	0.00		0.20	0.00		0.223	0	0	0.246	0	21.50	0.270	5.807	21.50	0.297	6.387	21.50	0.327	7.026	21.50	0.359	7.729	21.50	0.395	8.502	21.50	0.435	9.352	21.50	0.478	10.287	21.50	0.526	11.316	21.50	0.579	12.447	21.50	78.853	
	Sub-total (VIC):					0.00		0.00			0.00	21.50		7.96	21.50	0	5.807	21.50	0	6.387	21.50	0	7.026	21.50	0	7.73	21.50	0	8.50	21.50	0	9.35	21.50		10.29	21.50		11.32	21.50		12.447	21.50	86.808		



Sl No	Component	Unit cost as per the FSR 2016-17 (Rs. In lakhs)	Unit	2016-17			2017-18			2018-19			2019-20			2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			Total			
				Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Rate	Fin.	Phy.	Fin.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		
V. Nursery infrastructure:																																														
1	Establishment of Nursery	1.00	No.	0	0	0	1	LS	1.00	1	LS	1.00	1	LS	1.00	1	LS	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.00	4.000	
	S. Total (V)					0.000			1.000			1.000			1.000			1.000			0.000			0.000			0.000			0.000			0.000	0	0	0.000	0	0	0.000	0	0	0.000	4.00	4.000		
VI Soil and moisture conservation works																																														
	Formation of Mini percolation Tanks	1.20	Nos	0	0	0	1	1.20	1.200	1	1.20	1.200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2.400	
	S. Total (VI)					0.000			1.200			1.200			0.000			0.000			0.000			0.000	0.000		0.000			0.000			0.000			0.000			0.000			0.000	2	2.400		
c) vegetative measures																																														
	i) Planting agave suckers at 0.5m apart including cost and conveyance	0.00	0	0	0	0	0	0	0	0.20	0.44	0.100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.20	0.100	
	ii) Dribbling Palmyrah nuts @ 3m apart on mounds over 30 kms including pretreatment	0.00	Each	0	0	0	0	0	0	0.15	2.64	0.396	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.396	
						0.000			0.000			0.496			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000	0.35	0.496		
vi)	Civil Engineer on contract for selection of sites and preparation of estimates of SMC structures	10000	Each/month	0	0	0	6	0.10	0.600	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.600		
	Sub-total(VIC):					0.000			0.600			0.000			0.000			0.000			0.000			0.000	0.000		0.000			0.000			0.000			0.000			0.000			0.000	6	0.600		
VII Entry Point activities																																														
	a) Trainings and capacity building	10000	Each	0		0.000	4	LS	0.400	4	LS	0.40	2	LS	0.200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1.000		
	b) Micro plan preparation	5000	Each	0		0.000	1	LS	0.100	1	LS	0.100	1	LS	0.100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.300		
	SubTotal (VII)					0.000	5		0.500	5		0.500	3		0.300	0		0.000	0		0.000	0		0.000	0		0.000	0		0	0.000			0.000	0.000		0.000	0.000		0.000	0.000	0.000	13	1.300		
VIII Miscellaneous expenses / Administrative costs																																														
	a) Office expenses like stationery, computer peripherals, computer maintenance, electricity and telephone charges etc	1.00	LS	0	0	0	0	LS	0.500	0	LS	0.500	0	LS	0.500	0	LS	0.500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.000		
	b) Purchase of GPS and other equipment	LS	Nos	0		0	1		0.500	0		0	0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.500		
	SubTotal (VIII)					0.000			1.000			0.500			0.500			0.500			0.000			0.000			0.000			0.000			0.000			0.000			0.000			0.000	1	2.500		
IX Establishment and other logistic support:																																														
	a)Publicity including of Erection of Signboards, construction of pedestals @ 0.25 lakh for each Range.	LS	Nos	0		0	1	LS	1.000	1	LS	1.000	1	LS	1.000	1	LS	1.000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4.000	
	SubTotal (IX)					0.000			1.000			1.000			1.000			1.000			0.000	0.00		0.000			0.000			0.000			0.000			0.000			0.000			0.000	4	4.000		
	Total:					0.000			18.110			22.016			10.877			8.307			6.387			7.026			7.729			8.502			9.352			10.287			11.316			12.447		132.357		
X	Monitoring and evaluation(2% of the treatment cost)	0	0	0	0	0.000	0	0	0.362	0	0	0.440	0	0	0.218	0	0	0.166	0	0	0.128	0	0	0.141	0	0	0.155	0	0	0.170	0	0	0.187	0	0	0.206	0	0	0.226	0	0	0.249	0	2.647		
	GRAND TOTAL:					0.000			18.473			22.456			11.095			8.473			6.515			7.167			7.883			8.672			9.539			10.493			11.542			12.696	18.00	135.004		

  
Forest Divisional Officer,  
Paloncha



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Unit Cost for Raising of Misc., Nursery (5x9) during 2016-17

Sl. No.	FSR Code No.	Item of work	Qty	Rate in Rs.			Per	Amount
				As per FSR	Agency allowance 25%	Total		
1	2	3	4	5	6	7	8	9
1		PRIMARY BEDS of 1x1x0.3 m size for Miscellaneous species including bamboo - 50 primary beds for 1 lakh nursery is permitted. Primary beds should start from Jan - May depending on availability of fresh seeds. Once primary beds are formed, they can be used upto 5 years without changing the medium - what is required each time is solarization, burning a layer of grass on it and adding the below recommended fungicides and insecticides to the medium.						
1	01.01.01	Preparation of New Site by clearing jungle growth, uprootal of stumps and removal of surface stones, pebbles etc.	1 Bed	4.32	1.08	5.40	1 Bed	5.40
2	01.01.03	Digging soil of the demarcated beds of 1x1x0.30 m size	1 Bed	33.26	8.32	41.58	1 Bed	41.58
3	01.01.04	Cost of sandy soil and transportation with 5 kms lead including loading and unloading charges (sandy soil and FYM in 5:1 ratio, i.e., 0.125 cum sandy soil and 0.025 cum FYM per primary bed	1 Bed	25.45	6.36	31.81	1 Bed	31.81
4	01.01.05	For every extra km beyond 5 km upto 25 km	1 Bed	1.01	0	1.01	1 Bed	25.25
5	01.01.06	Cost and transport of 0.025 cum FYM	1 Bed	21.87	0	21.87	1 Bed	21.87
6	01.01.07	Mixing of sandy soil and FYM in 5:1 proportion (50 % of volume of bed) with excavated soil and refilling the bed and lavelling.	1 Bed	9.45	2.36	11.81	1 Bed	11.81
7	01.01.08	Covering the beds with dried grass and leaf litter and burning them to ash which can form the upper layer	1 Bed	10.80	2.70	13.50	1 Bed	13.50
8	01.01.10	Cost of seed - seed weight, germination percentage and target of planting stock of individual species are to be taken into consideration while estimating the requirement of seeds	1 Bed	A/a				500.00
9	01.01.12	Sowing of seed (finer seeds like Adina, Mitragyna, Anthocephalus etc. to be mixed with sand and bradcasted - Bigger seeds to be dibbled in lines 1-2 cm apart) and covering the bed to a thickness of 2.5 cm with paddy hay including cost and conveyance	1 Bed	10.75	2.69	13.44	1 Bed	13.44
10	01.01.13	Watering the primary nursery beds with rose water cans twice daily for a maximum period of 2 months.	1 Bed	12.10	3.03	15.13	1 Bed	30.25
11	01.01.15	Cost of chemicals, fungicide and insecticide	1 Bed	As per actuals limited to Rs. 1000/- per 1 lakh seedlings in primary bed stage				55.09
		Watch and Ward	1 No	7500	0.00	150.00	3 Months	450.00
							<b>S.TOTAL::</b>	<b>750.00</b>
12	1.03	BAG PLANT NURSERY: Seedlings need to be raised in 4"x7" (200 gauge) or 5"x9" (250 gauge) bags which are to be converted into 6"x12" (400 gauge) or 8"x12" (400 gauge) polybags. The seedlings are to be transplanted from primary beds in June - July. Hence the bags are to be filled during April-May when the soil is dry.						
		Raising of Nursery in Polythene bags in sizes of 4"x7" (200 gauge) or 5"x9" (250 gauge) bags and arranging in secondary beds (Bed size: 10 X 1 M).						

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Sl. No.	FSR Code No.	Item of work	Qty	Rate in Rs.			Per	Amount
				As per FSR	Agency allowance 25%	Total		
1	2	3	4	5	6	7	8	9
	01.03.01	Site preparation for New Sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc.	1 Nos	44.12	11.03	55.15	1 Bed	55.15
13		Cost of Polybags (Including the cost of certification by ): To ensure quality control, the quality of bags have to be certified by CIPET (Central Institute of Plastic Engineering & Technology), Hyderabad at the cost of tenderer by taking samples from various lots of polybags.						
	01.03.04	12.5 cm x 22.5 cm (5" x 9") size bags of 200 g: 366 bags / kg	5 Kgs	156.00	0.00	156.00	1 Kg	780.00
14		Cost and Transport of ingredients for Potting Mixture: (As per CSSR) Red Soil, tank-silt, FYM in 2:1:1 ratio. To this soil mixture, 220 gm of Indophyll M-45, 4.5 kg of single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals.						
		Transportation of soil mixture Ingredients						
	a)	a) Distance up to 5 km						
	01.03.06	12.5 cm x 22.5 cm (5" x 9") = 1.12 cum vol. for 1000 bags	1700 Nos	348.00	0.00	348.00	1000 Nos	591.60
	b)	b) For every extra km beyond 5 km upto 25 km						
	01.03.08	12.5 cm x 22.5 cm (5" x 9") = 1.12 cum vol. for 1000 bags	1700 Nos	90.70	0.00	90.70	1000 Nos	3083.80
15		Preparation of Potting Mixture by powdering of various ingredients, sieving and mixing them in prescribed proportion; opening of bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds.						
	01.03.10	12.5 cm x 22.5 cm (5" x 9") size bags of 1700 bags / bed	1700 Nos	830.95	207.74	1038.69	1000 Nos	1765.77
16	01.03.11	Allignment of beds including allignment of inspection paths etc	1 Bed	6.59	1.65	8.24	1 Bed	8.24
17	01.03.12	Pricking out seedlings from primary beds and transplanting into polybags	1700 Nos	122.74	30.69	153.43	1000 Nos	260.83
18	01.03.13	Sowing / dibbling of pretreated seeds (e.g. Yegisa, Nalamadi, Yerumaddi etc.) directly into bags including cost of treatment	1700 Nos	73.01	18.25	91.26	1000 Nos	155.14
19		Watering the plants twice a day from July - October						
	01.03.14	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	1 Bed	238.19	59.55	297.74	1 Bed/ Month	1786.44
20		Weeding the plants from July to October (3 times)						
	01.03.16	1st weeding - July	1 Bed	43.74	10.94	54.68	1 Bed/ Weeding	54.68
	01.03.17	2nd weeding - Aug	1 Bed	43.74	10.94	54.68	1 Bed/ Weeding	54.68
	01.03.18	3rd weeding - Sept	1 Bed	43.74	10.94	54.68	1 Bed/ Weeding	54.68
21		Shifting, Grading and rearranging in beds of 10x1 m size beds (2600 no. of 4"x7"bags; 1700 no. of 5"x9" bags)						
	01.03.19	One Grading in Sept.	1 Bed	204.28	51.07	255.35	1 Bed/ Shifting	255.35
22	01.03.20	Replacement of casualties after sorting out the empty bags and keeping at one end of the bed (maximum 10% of total stock is permissible)	1 Bed	58.00	14.50	72.50	1 Bed	72.50



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Sl. No.	FSR Code No.	Item of work	Qty	Rate in Rs.			Per	Amount
				As per FSR	Agency allowance 25%	Total		
1	2	3	4	5	6	7	8	9
23	01.03.21	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.	1 Bed	As per actuals with a maximum limit of Rs. Rs. 2000/ per 1 lakh polybag seedlings.				57.00
24	01.03.23	Weeding in the space between the beds, inspection path and surroundings of Nursery	1 Bed	29.81	7.45	37.26	1 Bed	37.26
25		Watch and Ward	1 No	7500	0.00	150.00	6 Months	2160.00
26		CONVERSION of RT plants or 4"x7" or 5"x9" bag-plants into higher size bags - to be done during November - December. At the time of conversion, the height of the plants should be at least above 0.45m in height (excluding the height of polybag).					S.TOTAL::	11233.12
		Cost and Transport of ingredients for Potting Mixture: Red Soil, tank-silt, FYM in 2:1:1 ratio. To this soil mixture, 220 gm of lindophyll M-45, 4.5 kg of single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals.						
		Transportation of soil mixture ingredients						
		a) Distance up to 5 km						
	01.03.28	5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum)	800 Nos	864.05	216.01	1080.06	1000 Nos	864.05
		b) For every extra km beyond 5 km upto 25 km						
	01.03.33	5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum)	800 Nos	218.70	54.68	273.38	1000 Nos	4374.00
		Preparation of Potting Mixture by powdering of various ingredients, sieving and mixing them in prescribed proportion; opening of bags and filling with potting mixture partially, tearing the polybag plants and repotting them inside bigger bags and filling the rest of bags; gently pressing the same with finger tips and arranging in beds of 10x1 m size (6"x12" size: 1100 bag.plants / bed and 8"x12" size": 800 bag plants per bed)						
	01.03.38	5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum)	800 Nos	1478.68	369.67	1848.35	1000 Nos	1478.68
		Weeding the plants (1100 no. of 6"x12"bags; 800 no. of 8"x12" bags; and 400 no. of 10"x16" bags) from November - March: 2 weedings						
	01.03.44	1st weeding - December	1 Bed	43.74	10.94	54.68	1 Bed	54.68
	01.03.45	2nd weeding - February	1 Bed	43.74	10.94	54.68	1 Bed	54.68
	01.03.46	Shifting, Grading and rearranging in secondary beds - One Grading in February	1 Bed	204.28	51.07	255.35	1 Bed/ Weeding	255.35
		Watering the plants manually twice a day (from Novemebr - March) with rose spray or finely perforated nozzle attached to a hose pipe.						
	01.03.47	Manually with rose spray or finely perforated nozzle attached to a hose pipe	1 Bed	238.19	59.55	297.74	1 Bed/ month	893.22
23	01.03.50	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.	1 Bed	As per actuals with a maximum limit of Rs. Rs. 2000/ per 1 lakh polybag seedlings.				50.00



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Sl. No.	FSR Code No.	Item of work	Qty	Rate in Rs.			Per	Amount
				As per FSR	Agency allowance 25%	Total		
1	2	3	4	5	6	7	8	9
24	01.05.04	Cost of Protection: One Nursery Watcher is allowed up to 1 lakh RT nursery or 100 secondary beds of polybags / 100 Teak beds of 10 x 1 m size or combination of both. One additional Nursery Watcher is permitted for nurseries having more than 1 lakh upto 3 lakh RT seedlings or more than 100 upto 300 secondary beds or Teak beds of 10 x 1 m size or combination of both. For more than 3 lakh RT or 300 secondary beds of Teak beds or combination of both another additional Nursery Watcher is allowed. While calculating the number of Nursery Watcher, care shall be taken to include the nursery raising under all Schemes at a particular site. No extra Nursery Watcher is allowed for primary beds of 1x1 m size. However, the above narrative is subject to the provisions cited under general instructions.	1 No	7500	0.00	150.00	5 Months	750.00
25	01.03.51	Contingencies for Raising Year towards the expenditure like cost of hose pipe, nursery boards, electricity charges, running and maintainance charges of oil engines (Bills to be certified by ACF / DFO; and separate logbook for repair of motor or oil engine and store register for materials purchased.	As per actuals, subject to max. of 5 % of estimate in Maint. Year.					438.73
							S.TOTAL::	9213.39
							Unit Rate as per FSR 2016-17::	21196.51
							Add 10% escalation::	2120.00
							Total unit rate arrived for the year 2017-18::	23316.51
							Add 10% escalation::	2332.00
							Total unit rate arrived for the year 2018-19::	25648.51
							Add 10% escalation::	2565.00
							Total unit rate arrived for the year 2019-20::	28213.51
							Add 10% escalation::	2821.00
							Total unit rate arrived for the year 2020-21::	31034.51

  
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**ESTIMATE FOR MAINTENANCE OF MISC. BAG PLANTS NURSERY (FROM SEPTEMBER ONWARDS  
TILL DISPOSAL) DURING 2016-17**

Sl. No.	Name of the Work	FSR Item No.	Qty	Rate	25% agency	Per	Amount
1	2	3	4		5	6	7
1	Watering the plants for 10 m X 1 m size bed	01.05.01	1	144.50	180.625	bed	181
2	Shifting and grading and re-arranging in beds for 10mx1m size bed with prior return permission of Circle Head	01.05.02	1	186.84	233.55	bed/1.time	234
3	Cost of protection (September, 2016 to March, 2017)	01.05.04	4	7500	--	Months	500
			<b>Unit cost for 2016-17 :</b>				<b>914</b>
					<b>Add 10% escalation::</b>		<b>91</b>
			<b>Total unit rate arrived for the year 2017-18::</b>				<b>1005</b>
					<b>Add 10% escalation::</b>		<b>101</b>
			<b>Total unit rate arrived for the year 2018-19::</b>				<b>1106</b>
					<b>Add 10% escalation::</b>		<b>111</b>
			<b>Total unit rate arrived for the year 2019-20::</b>				<b>1217</b>

  
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**Unit Cost for Advance Operations under Labour Intensive Method during 2016-17**

**Espacement 3 x 3 M**

**Name of the Species : NTFP**

Sl. No.	FSR Code No.	Item of work	Qty	Rate in Rs.			Per	Amount
				Asper FSR	Agency allowance 25%	Total		
1	2	3	4	5	6	7	8	9
1	02.01.02	Survey with hand-held GPS (staff to carry out) and demarcation - one manday is allowed for assistance. The surveyed sketch with exact effective area statement will be uploaded in MIS platform by end of December.	1 No.	311.04	0.00	311.04	1 No.	311
2		Clearing unsalable unwanted jungle growth (leaving all the tree species of good form particularly the hardwood tree species like Teak, Nallamaddi, Yegisa, Narepa, Somi, Jitregi, Billudu, Chenangi etc. and NTFP species like Ippa, Morri, Tani, Karaka, Vepa, Maredu, Tapasi, Tuniki, Chinta, Usuri, Nallajeedi etc.); Spreading the cut material all over the site; and Burning the same twice till completely burnt. The unsuitable area shall be excuded from the clearing operation and the expenditure shall be incurred for effective area only. All the above operations shall be completed before December.						
a)	02.01.04	Light Jungle Growth (> 20% and upto 30% ground area covered with Jungle growth) with prior written approval of DFO based on field inspection of DFO.	1 Ha	5207.65	1301.91	6509.56	1 Ha	6510
	02.01.05	Formation of Fire Lines	400 RMT	682.99	170.75	853.74	100 RMT	3415
					Unit Rate as per FSR 2016-17::			10236
					Add 10% escalation::			1024
					Unit Rate for 2017-18			11260
					Add 10% escalation::			1126
					Unit Rate for 2018-19			12386

  
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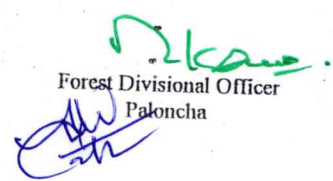
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**Unit Cost for Raising of NTSH plantation (LIM) as per FSR 2016-17**

Sl. No.	FSR Code No.	Item of work	Qty		Rate	Rate (inclusive of 25% Allowance )	Espacement		3X3		Amount
							Total Rate	Per			
1	2	3	4		5	6	7	8		9	
		Alignment and staking including base line									
1	02.01.07	Misc. (5M X 5M)	1111	Nos	98.77	24.69	123.46	100	Nos	1372	
2	02.01.09	Cost of preparation of stakes 0.45 m length and transportation to site	1111	Nos	47.3	0.00	47.30	100	nos	526	
		<b>Digging of Pits - Manual (As per RSSR): All efforts shall be made to complete pitting works before March-end. Under exceptional circumstances (if the target of plantation is given in the month of March-April), the pitting can be done during June and July. But any pitting done during June-July, plants can only be planted after the pits are verified by field inspections of FROs and DFOs of proper dimensions to avoid simultaneous pitting and planting which may result in higher percentage of casualties.</b>									
3	02.01.15	ii) 45 cm <sup>3</sup> pits (June-July)	1111	Nos	14.98	3.75	18.73	1	Nos	20803	
		Transportation of Planting Stock (including loading and unloading) Including Casualties									
4	02.02.03	20 X 30 cm (8"X12") bag plants upto 5 kms	1111	Nos	173.49	0.00	173.49	100	Nos	1927	
5	02.02.06	20 X 30 cm (8"X12") bag plants beyond 5 kms( 20kms)	1111	Nos	6.75	0.00	135.00	100	Nos	1500	
		Internal transportation to planting points on head loads									
6	02.02.12	20 X 30 cm (8"X12") bag plants	1111	Nos	117.94	29.49	147.43	100	Nos	1638	
	02.02.13	Application of 50 gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after planting. Similarly, the bag plants to be planted are to be dipped inside Chloropyriphos solution (5 ml of Chloropyriphos in 1 lit water) either at nursery site before transport or at plantation site before planting	1111	Nos	32.62	8.16	40.78	100	Nos	453	
	02.02.14	Cost of SSP, Chloridine dust (50 gm) or Chloropyriphos	85 Kgs		6.00	0.00	6.00	1 Kg		510	
7	02.02.16	Planting in 45cm	1111	Nos	363.366	90.84	454.21	100	Nos	5046	
	02.09.29	Replacement of casuvalities									
8	02.01.15	Diggingg of 45 cm cube pits	278	Nos	7.49	1.87	9.36	1	Nos	2603	
		Fertilizer Application for boosting growth									
13	02.02.18	Cost of DAP @ 25 gm / planting point	42 Kgs		20.00	0.00	20.00	1 Kg		840	
14	02.02.19	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application	1111	Nos	32.62	8.16	40.78	100	Nos	453	

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WEEDING & SOIL WORKING										
15	02.02.20	a) Circular weeding to a radius of 0.50 m around the plant (during July - Aug)	1111	Nos	103.79	25.95	129.74	100	Nos	1441
	02.02.21	b) 2 <sup>nd</sup> circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	1111	Nos	103.79	25.95	129.74	100	Nos	1441
16	02.02.22	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec) i) Ordinary soil	1111	Nos	363.37	90.84	454.21	100	Nos	5046
		Cutting of copiece growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and placing the cut material in between the planting rows (to be undertaken during July-August)								
17	02.02.25	High rainfall zone> 800 mm (for Warangal< Khammam & Adilabad circle)	1	Ha	1215.43	303.86	1519.29	1	Ha	1519
	02.09.38	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1	Ha	7500	0.00	7500	8	Mont hs	6000
18		Misc. like plantation board etc								2062
										Unit Rate as per FSR 2016-17::
										55180
										Add 10% escalation::
										5518
										Total unit rate arrived for the year 2017-18::
										60698
										Add 10% escalation::
										6070
										Total unit rate arrived for the year 2018-19::
										66768
										Add 10% escalation::
										6677
										Total unit rate arrived for the year 2019-20::
										73445

  
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**Unit Cost for 1st Year Maintenance of NTSB Plantation (LIM) as per FSR 2016-17**

Sl. No.	FSR Code No.	Item of work	Espacement 3X3					
			Qty	Rate	Rate (Inclusive of 25% Allowance)	Total Rate	Per	Amount
1	2	3	4	5	6	7	8	9
1	02.03.01	Replacement of Casualties: 25% in 1st year (In case of Eucalyptus: no casualty replacement). The list of all casualty points shall be prepared by concerned FRO by and made a report to DFO latest by end of May. The pitting of all such casualty points shall be over by end of June. The casualty replacement shall be completed by end of July.						
2	02.01.15	45 cm <sup>3</sup> pits (June-July)	278 Nos	14.98	3.75	18.73	1 Nos	5206
		Transportation of Planting Stock (including loading and unloading) Including Casualties						
3	02.02.03	20 X 30 cm (8"X12") bag plants upto 5 kms	278 Nos	173.49	0.00	173.49	100 Nos	432
4	02.02.06	20 X 30 cm (8"X12") bag plants beyond 5 kms( 20kms)	278 Nos	6.75	0.00	135.00	100 Nos	375
		Internal transportation to planting points on head loads						
5	02.02.12	20 X 30 cm (8"X12") bag plants	278 Nos	117.94	29.49	147.43	100 Nos	410
6	02.02.13	Application of 50 gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after	278 Nos	32.62	8.16	40.78	100 Nos	113
7	02.02.14	Cost of SSP, Chloridine dust (50 gm) or Chloropyriphos	278	As per actual				70
8	02.02.16	Planting in 45cm	278 Nos	363.366	90.84	454.21	100 Nos	1263
		WEEDING & SOIL WORKING (To be carried out after replacement of casualties are over)						
9	02.03.02	a) 1 <sup>st</sup> Circular weeding to a radius of 0.50 m around the plant during July-Aug	1111 Nos	103.79	25.95	129.74	100 Nos	1441
10	02.03.03	b) 2 <sup>nd</sup> Circular weeding to a radius of 0.50 m around the plant during Sept - Oct	1111 Nos	103.79	25.95	129.74	100 Nos	1441
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)						
12	02.03.04	i) For ordinary soil	1111 Nos	363.366	90.84	454.21	100 Nos	5046
13		Cutting of coppice growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and						
	02.03.07	High rainfall zone > 800 mm (for Warangal, Khammam & Adilabad Circle)	1 Ha	1215.43	303.86	1519.29	1 Nos	1519
14	02.03.08	Pruning of lower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height during October.	1111 Nos	103.194	25.80	128.99	100 Nos	1433
15	02.09.38	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1 Ha	7500	0.00	7500	12 Months	9000
Unit Rate for 2016-17								27799
Add 10% escalation::								2780
Total unit rate arrived for the year 2017-18::								30579
Add 10% escalation::								3058
Total unit rate arrived for the year 2018-19::								33637
Add 10% escalation::								3364
Total unit rate arrived for the year 2019-20::								37001
Add 10% escalation::								3700
Total unit rate arrived for the year 2020-21::								40701

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**Unit Cost for 2nd Year Maintenance of NTSH Plantation (LIM) as per FSR 2016-17**

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**Unit Cost for 3rd Year Maintenance of NTSH Plantation (LIM) as per FSR 2016-17**

Estimation (L1M) as per FSR 2016-17										
Sl. No.	FSR Code No.	Item of work	Qty		Rate	Rate (Inclusive of 25% Allowance)	Espacement		3X3	
							Total Rate	Per	Amount	
1	2	3	4		5	6	7	8		9
		<b>WEEDING &amp; SOIL WORKING</b> (To be carried out after replacement of casualties are over)								
1	02.04.01	a) 1 <sup>st</sup> Circular weeding to a radius of 0.50 m around the plant during July - Aug	1111	Nos	103.79	25.95	129.74	100	Nos	1441
2	02.04.02	b) 2 <sup>nd</sup> Circular weeding to a radius of 0.50 m around the plant during Sept - Oct	1111	Nos	103.79	25.95	129.74	100	Nos	1441
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)								
3	02.04.03	i) For ordinary soil	1111	Nos	363.366	90.84	454.21	100	Nos	5046
4		Cutting of coppice growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and								
	02.04.06	High rainfall zone > 800 mm (for Warangal, Khammam & Adilabad Circle)	1	Ha	1215.43	303.86	1519.29	1	Nos	1519
5	02.04.08	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1	Ha	7500	0.00	7500	12	Months	9000

  
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**Unit Cost for 5th Year Maintenance of NTSH Plantation (LIM) as per FSR 2016-17**

Sl. No.	FSR Code No.	Item of work	Espacement 3X3					
			Qty	Rate	Rate (inclusive of 25% Allowance)	Total Rate	Per	Amount
1	2	3	4	5	6	7	8	9
		<b>WEEDING &amp; SOIL WORKING</b> (To be carried out after replacement of casualties are over)						
1	02.04.01	a) 1 <sup>st</sup> Circular weeding to a radius of 0.50 m around the plant during July - Aug	1111 Nos	103.79	25.95	129.74	100 Nos	1441
2	02.04.02	b) 2 <sup>nd</sup> Circular weeding to a radius of 0.50 m around the plant during Sept - Oct	1111 Nos	103.79	25.95	129.74	100 Nos	1441
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)						
3	02.04.03	i) For ordinary soil	1111 Nos	363.366	90.84	454.21	100 Nos	5046
4		Cutting of coppice growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and						
	02.04.06	High rainfall zone > 800 mm (for Warangal, Khammam & Adilabad Circle)	1 Ha	1215.43	303.86	1519.29	1 Nos	1519
5	02.04.08	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1 Ha	7500	0.00	7500	12 Mont hs	9000
Unit Rate for 2016-17								18447
Add 10% escalation::								1845
Total unit rate arrived for the year 2017-18::								20272
Add 10% escalation::								2029
Total unit rate arrived for the year 2018-19::								22321
Add 10% escalation::								2232
Total unit rate arrived for the year 2019-20::								24553
Add 10% escalation::								2455
Total unit rate arrived for the year 2020-21::								27008
Add 10% escalation::								2701
Total unit rate arrived for the year 2021-22::								29709
Add 10% escalation::								2971
Total unit rate arrived for the year 2022-23::								32680
Add 10% escalation::								3268
Total unit rate arrived for the year 2023-24::								35948
Add 10% escalation::								3595
Total unit rate arrived for the year 2024-25::								39543
Add 10% escalation::								3954
Total unit rate arrived for the year 2025-26::								43497

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**Unit Cost for 6th Year Maintenance of NTSB Plantation (LIM) as per FSR 2016-17**

		Espacement 3X3						
Sl. No.	FSR Code No.	Item of work	Qty	Rate	Rate (inclusive of 25% Allowance)	Total Rate	Per	Amount
1	2	3	4	5	6	7	8	9
		<b>WEEDING &amp; SOIL WORKING (To be carried out after replacement of casualties are over)</b>						
1	02.04.01	a) 1 <sup>st</sup> Circular weeding to a radius of 0.50 m around the plant during July - Aug	1111 Nos	103.79	25.95	129.74	100 Nos	1441
2	02.04.02	b) 2 <sup>nd</sup> Circular weeding to a radius of 0.50 m around the plant during Sept - Oct	1111 Nos	103.79	25.95	129.74	100 Nos	1441
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)						
3	02.04.03	i) For ordinary soil	1111 Nos	363.366	90.84	454.21	100 Nos	5046
4		Cutting of coppice growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and						
	02.04.06	High rainfall zone > 800 mm (for Warangal, Khammam & Adilabad Circle)	1 Ha	1215.43	303.86	1519.29	1 Nos	1519
5	02.04.08	<b>Cost of Protection:</b> One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1 Ha	7500	0.00	7500	12 Mont hs	9000
* Unit Rate for 2016-17								18447
Add 10% escalation::								1845
Total unit rate arrived for the year 2017-18::								20297
Add 10% escalation::								2029
Total unit rate arrived for the year 2018-19::								22321
Add 10% escalation::								2232
Total unit rate arrived for the year 2019-20::								24553
Add 10% escalation::								2455
Total unit rate arrived for the year 2020-21::								27008
Add 10% escalation::								2701
Total unit rate arrived for the year 2021-22::								29709
Add 10% escalation::								2971
Total unit rate arrived for the year 2022-23::								32680
Add 10% escalation::								3268
Total unit rate arrived for the year 2023-24::								35948
Add 10% escalation::								3595
Total unit rate arrived for the year 2024-25::								39543
Add 10% escalation::								3954
Total unit rate arrived for the year 2025-26::								43497

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**Unit Cost for 8th Year Maintenance of NTSB Plantation (LIM) as per FSR 2016-17**

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**Unit Cost for 9th Year Maintenance of NTSB Plantation (LIM) as per FSR 2016-17**

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## Unit Cost for 10th Year Maintenance of NTSB Plantation (LIM) as per FSR 2016-17

Sl. No.	FSR Code No.	Item of work	Espacement 3X3					
			Qty	Rate	Rate (inclusive of 25% Allowance)	Total Rate	Per	Amount
1	2	3	4	5	6	7	8	9
		WEEDING & SOIL WORKING (To be carried out after replacement of casualties are over)						
1	02.04.01	a) 1 <sup>st</sup> Circular weeding to a radius of 0.50 m around the plant during July - Aug	1111 Nos	103.79	25.95	129.74	100 Nos	1441
2	02.04.02	b) 2 <sup>nd</sup> Circular weeding to a radius of 0.50 m around the plant during Sept - Oct	1111 Nos	103.79	25.95	129.74	100 Nos	1441
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)						
3	02.04.03	i) For ordinary soil	1111 Nos	363.366	90.84	454.21	100 Nos	5046
4		Cutting of coppice growth flush to the ground to reduce the competition over the entire area duly retaining useful species after planting and						
	02.04.06	High rainfall zone > 800 mm (for Warangal, Khammam & Adilabad Circle)	1 Ha	1215.43	303.86	1519.29	1 Nos	1519
5	02.04.08	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that fence is in proper condition and entry of grazing animals is stopped. The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.	1 Ha	7500	0.00	7500	12 Mont hs	9000
						Unit Rate for 2016-17		18447
						Add 10% escalation::		1845
						Total unit rate arrived for the year 2017-18::		20292
						Add 10% escalation::		2029
						Total unit rate arrived for the year 2018-19::		22321
						Add 10% escalation::		2232
						Total unit rate arrived for the year 2019-20::		24553
						Add 10% escalation::		2455
						Total unit rate arrived for the year 2020-21::		27008
						Add 10% escalation::		2701
						Total unit rate arrived for the year 2021-22::		29709
						Add 10% escalation::		2971
						Total unit rate arrived for the year 2022-23::		32680
						Add 10% escalation::		3268
						Total unit rate arrived for the year 2023-24::		35948
						Add 10% escalation::		3595
						Total unit rate arrived for the year 2024-25::		39543
						Add 10% escalation::		3954
						Total unit rate arrived for the year 2025-26::		43497
						Add 10% escalation::		4350
						Total unit rate arrived for the year 2026-27::		47847
						Add 10% escalation::		4785
						Total unit rate arrived for the year 2027-28::		52632
						Add 10% escalation::		5263
						Total unit rate arrived for the year 2028-29::		57895
						Add 10% escalation::		5790
						Total unit rate arrived for the year 2029-30::		63685

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**Unit Cost Estimate for Stabilization of Trench of 1 Km length 2016-17**

Sl. No.	FSR Item No.	Item of work	Phy	Cost	Agency allowance 25%	Total	Per Nos.	Fin (Rs. In Lakhs)
		<b>STABILIZATION OF Bund</b>						
		(I) 2 mtrs. X 2 mtrs. Peripheral trench						
1		<b>Planting Pongamia in 30 Cm3 pit on the Crest of mound at 4 M spacing</b>						
		Cost of Pongamia Seedlings	250 Nos	4	0	4	250	1000.0
	02.30.01	a) Alignment & Stacking - 4 m apart in one row	250 Nos	66.74	16.685	83.425	100	208.6
	02.30.02	b) Cost of preparation of stakes (0.45 m length) and transporation to site	250 Nos	47.3	11.825	59.125	100	147.8
	02.30.03	c) Digging 30 cm3 pits (50% of original rate) to be done during June	250 Nos	1.96	0.49	2.45	1	613.0
	02.30.04	d) Transporation of seedlings & Internal transport	250 Nos	100.2	0	100.17	100	250.4
	02.30.05	e) Planting with 4 m apart in one row (250 No. per Km)	250 Nos	116.8	29.1875	145.9375	100	364.8
2		<b>iv) Planting 1 row of Bamboo Rhizome at midline of inner slope of the mound at 4 m apart</b>						
	02.30.16	a) Alignment & Stacking - 4 m apart in one row	250 Nos	66.74	16.685	83.425	100	208.6
	02.30.17	b) Cost of preparation of stakes (0.45 m length) and transporation to site	250 Nos	43.8	10.95	54.75	100	136.9
	02.30.18	c) Digging 30 cm3 pits (50% of original rate) to be done during June	250 Nos	1.96	0.49	2.45	1	613.0
	02.30.19	d) Transporation of seedlings & Internal transport	250 Nos	45.26	0	45.26	100	113.2
	02.30.20	e) Planting with 4 m apart in one row (250 No. per Km)	250 Nos	116.8	29.1875	145.9375	100	364.8
3		<b>v) Planting 3 rows of fast-growing secondary hardwood species or its associates of local origin with an espacement of 3x2 m</b>						
	02.30.21	a) Clearance of 5 mt width stretch	500 Nos	864.4	216.1075	1080.5375	100	5402.7
	02.30.22	b) Alignment & Stacking 2x3 m espacement	500 Nos	66.74	16.685	83.425	100	417.1
	02.30.23	c) Cost of preparation of stakes (0.45 m length) and transporation to site	500 Nos	47.3	11.825	59.125	100	295.6
	02.30.24	d) Digging 30 cm3 pits (50% of original rate) to be done during June	500 Nos	1.168	0.291875	1.459375	1	730.0
	02.30.25	d) Transporation of seedlings & Internal transport	500 Nos	100.2	0	100.17	100	500.9
	02.30.26	f) Planting with local secondary hardwood and its associate in one row at 4 m apart (Narayepi, Yegisa, Buruga, Tellachinduga etc.)	500 Nos	116.8	29.1875	145.9375	100	729.7



4		Planting of Gachakaya in 2 rows on the outer slope of the mound	2						
	A/a.	Gachakaya-8kg							
		Cost of seed	8	Kgs	250				
	2.25.01	Seed dibbling	1	Km	1080				2000.0
									1080.0
5	A/a.	Misc. / Unforeseen expenditure	A/a		300				
		Cost of seed collection	A/a		50				300.0
	2.25.01	Dibbling of Babul seed inside the trench@2000Nos/Km(3260Nos/Kg)	1	Km	1080				30.0
									1080.0
		Total :							16587.1
									16587.06
									1658.71
									18245.77
									1824.58
									20070.34
									2007.03
									22077.38
									2207.74
									24285.11
									2428.51
									26713.63
									2671.36
									29384.99
									2938.50
									32323.49
									3232.35
									35555.84
									3555.58
									39111.42
									3911.14
									43022.56
									4302.26
									47324.82
									4732.48
									52057.30
								OR	52057

  
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