

# Unit Cost for Construction of RCC Boundary Pillars along RF Boundary

## ABSTRACT ESTIMATE

Sl.No.	Item of the Work	Nos	Quantity of each pillar	Net Qty.	Rate	Per	Total
1	2	3	4	5	6	7	8
1	Earth Work Excavation	1	0.648	0.648	1619.80	10 Cu.m.	105
2	Reinforced Cement Concrete (1:2:4)	1	0.825	0.825	7451.84	1 Cum	6148
3	Plastering with CM (1:6) & CM (1:3) 12 mm thick	1	3.143	3.143	3357.20	10 Sqm	1055
4	water proof Cement paint	1	3.143	3.143	325.10	10 Sqm	102
5	Steel for Reinforcement	1	12.459	12.459	59.390	1 Kg	740
6	Engraving of Pillar No. and Lat-Longs as per notified map and Painting to the boundary Pillars 2 coats with ready mixed Synthetic paints.	1	850	Rs. 850/- per pillar			850
							<b>9000</b>

  
Forest Divisional Officer,  
Nirmal

**9000.00**  
9900

As per FSR 2020-21  
10% escalation for 2021-22

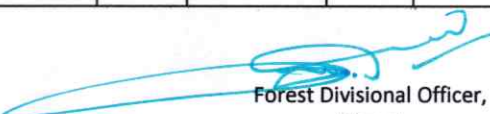
**Unit Cost for Creation of Fire Lines**

Sl. No.	Description of work	FSR Code	Quantity	Rate	Per		Amount
I	Formation of New Fire lines of 5.00 m width and cleaning of old fire lines if not maintained for last 5 years including burning.	03.01.04	1	822.31	100	Rmt	8223
Per Km			8223.10				

**UNIT COST FOR MAINTENANCE OF FIRE LINES**

Sl. No.	Description of work	FSR Code	Quantity	Rate	Per		Amount
I	Maintenance of fire lines (5.00 m width) including cutting back of rank growth and burning	03.03.01	1	608.27	100	Rmt	6083

10% escalation every year

  
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# UNIT COST FOR FORMATION OF INSPECTION PATH / ROAD

SI.NO	DESCRIPTION OF ITEM OF WORK	MEASUREMENT OF METERS				QTY	RATE	PER	AMOUNT
		NO	L	B	D				
	<b>Clearing and Grubbing Road Land</b>								
1	Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubus, saplings and trees of girth upto 300mm, removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of servicable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201 MORD / MORTH.	1	3500	3.00	0.00	10500.00			
	Deduct 40% Voids					4200.00			
						6300.00	1.90	per cum	11970
2	Providing cut-off trench filling using selected impervious soil from approved borrow areas in layers of 25 to 30 cm before compaction including cost of all materials, machinary, labour,all operations such as excavation, sorting out, transportation,spreading in layers of specified thickness,breaking clods,sectioning,watering,campacting to specified for maintenance of works.	1	3500	3.00	0.25	2625.00	89.57	per cum	235121
	<b>Total:</b>								<b>247091</b>

For Formation of Inspection path Per 1 Km = 82363.8

## UNIT COST FOR MAINTENANCE OF INSPECTION PATH / ROAD

SI.NO	DESCRIPTION OF ITEM OF WORK	MEASUREMENT OF METERS				QTY	RATE	PER	AMOUNT
		NO	L	B	D				
	<b>Clearing and Grubbing Road Land</b>								
1	Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubus, saplings and trees of girth upto 300mm, removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of servicable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201 MORD / MORTH.	1	3500	3.00	0.00	10500.00			
	Deduct 40% Voids					4200.00			
						6300.00	1.90	per cum	11970
	<b>Total:</b>								<b>11970</b>

For Maintenance of Inspection path Per 1 Km = 11970.0

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**UNIT COST FOR RAISING OF 100,000 BAG PLANTS NURSERY FOR 2020-21 (size of bag 6"x 8") (FSR 2020-21)**

Sl. No.	FSR item No	Nature of work	Qty		Rate	Unit	Amount	Remarks
	01.03.	<b>BAG PLANT NURSERY:</b> 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) or 10"x16" (400 gauge) polybags. The seedlings are to be transplanted from primary beds in February - March. Hence the bags are to be filled during January - February when the soil is dry.						
		<b>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: 10.00 m X 1.00 m).</b>						
	01.03.01	Site preparation for New Sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc.	45.45	Bed	52.08	1	2367	
		<b>Cost of Polybags</b> (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.						
	01.03.03	(b) 15.00 cm x 20.00cm(6" x 8") size bags: 250 g: 275 Nos / kg ( 50000 + 15% = 57500) (57500/275 = 209.09 Kgs)	209.09	Kgs	180.00	1	37636	As per Tender
	0.1.03.04	<b>Cost and Transport of ingredients for Potting Mixture: (As per CSSR)</b> 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.						
		<b>Transportation of soil mixture ingredients</b>						
		b) Distance up to 5 km						
	01.03.05	(c) 15.00 Cm X 20.00 cm( 6" X 8") size Gusseted Polybags of 250 gauge : 1.433 Cu.m Volume for 1000 bags	50000	Bags	529.99	1000	26500	
		b) For every extra km beyond 5 km upto 25 km						
	01.03.06	12.5 cm x 22.5 cm (5" x 9") = 1.12 cum vol. for 1000 bags ( 20 Kms x 13.18 = 206.00)	50000	Bags	263.60	1000	13180	
	01.03.07	Cost of Chemical component			As per Actuals		2000	
		<b>Preparation of Potting Mixture</b> 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.						
	01.03.08	(c) 15.00 Cm X 20.00 cm( 6" X 8") 1100 bags per bed	50000	Bags	1048.37	1000	52419	
	01.03.09	Allignment of beds including allignment of inspection paths etc	45.45	Bed	7.98	1	363	
	01.03.10	<b>Pricking</b> out seedlings from primary beds and transplanting into polybags	50000	Bags	147.74	1000	7387	
	01.03.11	<b>Sowing / dibbling of pretreated seeds</b> (e.g. Yegisa, Nalamadi, Yerumaddi etc.) directly into bags including cost of treatment	0	Bags	83.70	1000	0	
	01.03.12	<b>Watering the plants twice a day from Feb - March</b>						
		a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	45.45	Bed / 2months	286.76	1	26066	
	01.03.13	Weeding to be done for every 2 months from the date of transplantation up to March.	45.45	Bed / weeding	52.66	1	2393	
	01.03.14	<b>1st Shifting, Grading</b> after three months and consecutive shifting and grading after every two months till the nursery stock is lifted.	45.45	Bed / weeding	245.96	1	11179	

Sl. No.	FSR item No	Nature of work	Qty		Rate	Unit	Amount	Remarks
	01.03.15	Replacement of casualties after sorting out the empty bags and keeping at one end of the bed (maximum 10% of total stock is permissible)	4.55	Bed	69.83	1	317	
	01.03.16	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from February to March.		As per actuals with a maximum limit of Rs. 2000/ per 1 lakh polybag seedlings.			1000	
	01.03.17	Application prophylactic foliar spray of 0.2% of Carbendazim / Dithane M-45 and any organo-phosphate (Monocrotophos / Phosphamidon @ 3-4 ml in 1 lit of water) at regular interval (once in a month) alternatively. Similarly application of multiplex or NPK 19:19:19 (a teaspoon in 1 lit water) - once in a month - to start 1 month after conversion by back-packed power-sprayer (preferably in morning or evening and no watering for at least 12 hours after spray)		By Nursery Watcher			0.00	
	01.03.18	Weeding in the space between the beds, inspection path and surroundings of Nursery	45.45	Bed	35.91	1	1632	
		Nursery Watcher from September to March for 7 Months	7	Month	9194	1	64358	
		<b>Total</b>					<b>248797</b>	

Per 50000 Bags or **248800**

**Unit Rate**

Per Bag Rs 4.98

**4.98** As per FSR 2020-21

  
Forest Divisional Officer  
Nirmal



**UNIT COST FOR MAINTENANCE OF BAG PLANTS NURSERY FOR 2020-21 (6"x 8") (100000 Nos) (FSR 2020-21)**

Sl. No.	FSR item No	Nature of work	Qty	Rate	Unit	Amount	Remarks
	01.04.	<b>MAINTAINANCE YEAR OF NURSERY</b>					
		<b>MAINTENANCE OF BAG PLANTS NURSERY UPTO PLANTING SEASON (APRIL TO AUGUST) for 10 m X 1 m size secondary beds (2600 Nos of 4" X 7" bags; 1700 Nos of 5" X 9" bags ; 1100 Nos. of 6"X12" bags; 800 Nos. of 8"X12" bags; 400 Nos. of 10"x16" bags per bed)</b>					
	01.04.01	<b>Watering</b> polybag secondary beds twice a day for 4 months					
		a) Manually with rose spray or finely perforated nozzle attached to a hose pipe . (FSR 2019-20) (April 2020)	45.45	Bed / month	273.10	1	12412 FSR 2019-20
		a) Manually with rose spray or finely perforated nozzle attached to a hose pipe . (FSR 2019-20) ( 273.10 /30 = 9.10 ) (19 days - May 2020)	45.45	Bed / day	9.10	1	7858 FSR 2019-20
		a) Manually with rose spray or finely perforated nozzle attached to a hose pipe . (FSR 2020-21) 286.76 /30 = 9.55 ) (10 days - May 2020)	45.45	Bed / day	9.55	1	4775 FSR 2020-21
		a) Manually with rose spray or finely perforated nozzle attached to a hose pipe . (FSR 2020-21) ( 2 months i.e June & July 2020)	45.45	Bed / month	286.76	1	26066 FSR 2020-21
	01.04.02	<b>Weeding</b> once during maintenance year	45.45	Bed / weeding	52.66	1	2393
	01.04.03	Shifting, grading and re-arranging in beds	45.45	Bed / 2 times shifting	245.96	1	22358
	01.04.04	Application prophylactic foliar spray of 0.2% of Carbendazim / Dithane M-45 and any organo-phosphate (Monocrotophos / Phosphamidon @ 3-4 ml in 1 lit of water) at regular interval (once in a month from April to August) alternatively. Similarly, application of multiplex or NPK 19:19:19 (1 teaspoon in 1 lit water) - once in a month - to be applied by back-packed power-sprayer (preferably in morning or evening and no watering for at least 12 hours after spray)	45.45	By Nursery Watcher		0	
	01.04.05	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from April - August)	45.45	As per actuals with a maximum limit of Rs. 2000/ per 1 lakh polybag seedlings		1000	
	01.04.06	<b>Cowdung Slurry application</b> (One can apply chemical foliar spray or apply cowdung slurry - not both )					
		(a) Cost and transportation of fresh cowdung	45.45	per 100 beds for 3 months	As per actual subject to maximum of Rs.2500/-		1136
		(b)Application of cowdung slurry - only once between April to June - Watering should not be done 12 hours before and after application of cowdung slurry treatment.		1000 bags	By Nursery Watcher		0
	01.04.07	<b>Weeding in the space between the beds</b> , inspection path and surroundings of Nursery	45.45	Beds	28.98	1	1317
		<b>Nursery Watcher from April to August for 5 Months</b>					
		April.-2020	1	Month	8757	1	8757 FSR 2019-20
		May.-2020 ( 19 days -FSR 2019-20) ( 8757/30 = 291.90 P. day)	19	Day	291.9	1	5546 FSR 2019-20
		May.-2020 ( 11 days -FSR 2020-21) ( 9194/30 = 306.46 P. day)	11	Day	306.46	1	3371 FSR 2020-21
		June, July & August-2020 ( 3 months)	3	Month	9194	1	27582 FSR 2019-20
							<b>124571</b>
	01.04.08	<b>Contingencies for Raising Year</b> towards the expenditure like cost of hose pipe, nursery boards, ( store register for materials purchased to be maintained).		As per actuals, subject to max. of 3 % of estimate in Maint. Year.		3737	
	01.04.09	<b>Contingencies for Electricity</b> charges, Running & maintenance charges of oil engines (bills to be certified by DFO/FDO) and a separate logbook to be maintained for oil engine.				8692	
						<b>137000</b>	

Per 50000 Bags or **137000**

**Unit Rate**

2.74 As per FSR 2020-21  
3.014 10% escalation for 2021-22

**Per Bag Rs 2.74**

  
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Nirmal

**UNIT COST FOR MEDICINAL PLANTATION ON SCTs (700 plants per Ha) (FSR 2020-21)**

SI No	Item No.	Schedule of operations with Specification	Unit	Qty	Rate (in Rs)	Per	Amount
1	2	3	4	5	6	7	8
	03.02.08	<b>Raising</b>					
		A) Alingment and stacking	No	700	80.38	100	563
		B) cost of preparation of stacks (0.45Mts length and transportaion to the sites.	No	700	56.96	100	399
		C) Digging of 30 Cm. Pits to be done during June	No	700	4.78	1	3346
		D) Transportation of Seedlings- up to 5Kms	No	700	115.19	100	806
		- 5 to 25 Kms (20 Km x 3.85)	No	700	77.00	100	539
		c) Internal transporation	No	700	91.82	100	643
		d) Planting	No	700	437.48	100	3062
		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. ( 700 & 20% = 140 Nos)	140				
		a) Pitting	No	140	2.39	1	335
		b) Transportation of Seedlings- up to 5Kms	No	140	115.19	100	161
		- 5 to 25 Kms (20 Km x 3.85)	No	140	77.00	100	108
		c) Internal transporation	No	140	91.82	100	129
		d) Planting	No	140	437.48	100	612
		Two Deep soil workings and saucer formation during June - July and September - October	No	700	437.48	100	6124
					<b>Total</b>		<b>16827</b>

or **16827.00** per Ha

10% excalation every year

  
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Nirmal

### Unit Cost for Cultural Operations

F.S.R. Item	Item of work	Unit	Qty	Rate	Per	Amount
1	2	3	4	5	6	7
<b>Chapter - IX</b>						
03.01.01	Survey with hand held GPS and demarcation - one manday is allowed for assistance	Per point	1	374.48	1	374
03.01.02	Laying of sampling / control plot with intensity 0.01% and size of sample plot 0.1 ha. The information has to be collected in the plot approach/ description and plot including enumeration.	Per point	4	1372.14	1	5489
<b>Chapter - IV</b>						
<b>IMPROVEMENT OF DEGRADED NATURAL FORESTS THROUGH ASSISTED NATURAL REGENERATION (ANR) METHOD (For the forest area having canopy density of 0.1 - 0.4)</b>						
<b>TREATMENT OF SECURED ANR AREA</b>						
03.02.04	1) Clearance of unsalable unwanted Jungle growth , climber cuttingm, Singling, coppicing(upto 30 cms), tending etc., (leaving all the tree species of good-form particularly the hardwood tree species like Teak, Nallamaddi, Yegisa, Narepa, Somi,Jittregi, Billudu,Chennangi etc., and NTFP species like Ippa, Morri, Tani, Karaka, Vepa, Maredu, Tapasi, Tuniki, Chinta, Usiri, Nallajeedi etc.,					
	(b) Area having 1000 and above root stock / stems per Ha. (figures obtained as per sampling analysis)	Ha.	150.00	6605.97	1	990895.5
	Misc.Expenditure ( Plantation Board)	As perActual				5000
	<b>TOTAL</b>					<b>1001759</b>

6678.39 As per FSR 2020-21  
7346.229 10% excalation for 2021-22

Per Ha = 6678.39

  
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**Unit Cost for Bamboo planting along the water bodies, Streams protected areas**

Sl. No.	FSR Items No.	Nature of work	Quantity		Rate per		Nos.	Amount
1	2	3	4	5	6	7	8	9
1	03.02.08	<b>Planting of Bamboo</b> along Nalas existng in ANR areas at 5 mts distance on both the sides of Nala in 30 cubic pit. <b>Total planting points 400 plants per km. (Raising year)</b>						
		(a) Allignment & Stacking	800	Nos	80.38	100	Nos.	643
		(b) Cost of preparation of stakes (0.45 m length) and transportation to site	800	Nos	56.96	100	Nos.	456
		(c) Digging of 30 cm <sup>3</sup> pits to be done during June	800	Nos	4.78	1	Nos.	3824
		(d) Transportation of seedlings (including loading and unloading) & Internal transport						
		(Transportation of seedlings i) From nursery to plantation site - upto 5 Kms lead - 12.5 x 22.5 cm (5"x9") bag plants	800	Nos	51.71	100	Nos.	414
		(ii) From nursery to plantation site - beyond 5 Km lead - for every extra km beyond 5 km upto 25 km (From Kadam Central Nursery to Palntation site 20 km,, for 1 Km 2.05/100 Nos, for 20Kmx2.05=41.00	800	Nos	41.00	100	Nos.	328
2	03.02.09	Internal transportation of 5"x9" bags plants to the planting points on Head loads	800	Nos	59.38	100	Nos.	475
3	03.02.10	Planting at 5 mts distance on both sides of Nala	800	Nos	140.60	100	Nos.	1125
4	03.02.16	Replacement of causalities 20% durring Raising year	50% of unit rate of original pitting during raising year and Planting, transportation and internal					
		Replacement of causalities 20% durring Raising year Pitting	160	Nos	2.39	1	Nos.	382
		Replacement of causalities 20% durring Raising year Transportation upto 5Km	160	Nos	51.71	100	Nos.	83
		from 5 km Upto 25 Km	160	Nos	41.00	100	Nos.	66
		Internal transportation	160	Nos	59.38	100	Nos.	95
		Palnting	160	Nos	140.60	100	Nos.	225
5	03.02.17	Two Deep Soil workings and saucer formation during June - July and September - October (for each operation) (437.48 for 400 Nos. One Operation 400 Plants,, two Operation 800 Plants (800+800=1600 Nos) x 437.48/100 Nos = Rs.7000/-	800	Nos	437.48	100	Nos.	3500
<b>TOTAL</b>								<b>11616</b>

Per 1 Km

5807.92

  
Forest Divisional Officer,  
Nirmal

**UNIT COST FOR RAISING OF 4" X 7" BAG PLANT NURSERY as per FSR 2020-21**

Sl. No.	FSR item No	Nature of work	Qty	Rate	Unit	Amount	Remarks
		<b>Raising of Nursery</b>					
1	<b>01.03.01</b>	Site preparation for New Sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc.	1 Bed	52.08	P bed	52.08	
2	<b>01.03.03</b>	Cost of Polybags (including the cost of certification): 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. (a) 10 cm x 17.5 cm (4" x 7") size bags of 200 g: 589 bags / kg	1.1	180.00	Per Kg	198.00	
3	<b>01.03.04 &amp; 01.03.05</b>	Cost and Transport of ingredients for Potting Mixture: Red Soil, tank-silt / clay soil, 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. (20 Km=207.06+15*5.15=284.31)	600	284.31	P 1000	170.59	
4	<b>01.03.07</b>	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. (a) 10 cm x 17.5 cm (4" x 7") size bags: 2600 bags / bed	600	613.10	P 1000	367.86	
5	<b>01.03.08</b>	Alignment of beds including alignment of inspection path etc.,	1 Bed	7.98	P bed	7.98	
6	<b>01.03.09</b>	Pricking out seedlings from primary beds and transplanting into polybags	600	147.74	P 1000	88.64	
7	<b>01.03.11</b>	Watering the plants twice a day from February - March	1 Bed	286.76	Per bed/month	1720.56	
8	<b>01.03.12</b>	Weeding the beds during March	1 Bed	52.66	Per Bed / Per weeding	52.66	
9	<b>01.03.13</b>	Shifting, Grading and rearranging in beds of 10 m x 1 m size beds (2600 no. of 4"x7"bags; 1700 no. of 5"x9" bags) - One Grading in March.	1 Bed	245.96	Per bed / shifting & grading	245.96	
10	<b>01.03.14</b>	Replacement of casualties after sorting out the empty bags and keeping at one end of the bed (maximum 10% of total stock is permissible)	60	69.83	P 1000	4.19	
11	<b>01.03.15</b>	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.			As per actuals	10.00	
12	<b>01.03.19</b>	Weeding the beds during May & July	1 Bed	35.91	Per Bed / Per weeding	35.91	
13	<b>01.03.34</b>	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	5% of the estimate			140.00	
						<b>3094.43</b>	
						<b>3100.00</b>	

**UNIT RATE : Per on Plant**

or **3100.00**  
**1.192**

  
Forest Divisional Officer  
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**UNIT COST FOR CONVERSION OF BAG PLANTS FROM 4" X 7" to 8" X12" as per FSR 2020-21**

Sl. No.	FSR Item No	Nature of work	Qty	Rate	Unit	Amount	Remarks
1	01.03.22	Cost and Transport of ingredients for Potting Mixture: Red Soil, tank-silt / clay soil, 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.					
2	01.03.22&01.03.23	Cost and Transport of ingredients for Potting Mixture: Red Soil, tank-silt / clay soil, 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.(20 Km=1205.66+15*29.55=1648.91)	600	1648.91	P 1000	989.35	
4	01.03.24	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) (c) 4" x 7" to 8" x 12" polybags	600	2149.51	P 1000	1289.71	
3	01.03.29	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					
		(a) 1st weeding - December	1 Bed	52.66	Per Bed / Per weeding	52.66	
		(b) 2nd weeding - February	1 Bed	52.66	Per Bed / Per weeding	52.66	
6	01.03.30	Shifting, Grading and rearranging in secondary beds - One Grading in February	1 Bed	245.96	Per bed / shifting & grading	245.96	
7	01.03.31	Watering the plants manually twice a day (from Novemebr - March) with rose cans or finely perforated nozzle attached to a hose pipe.	1 Bed	286.81	Per bed/month	1434.05	
8	01.03.33	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.			As per actuals	10.00	
		for 800 Plants				4074.38	
		Per on Plant				5.0930	

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR MAINTENANCE OF 6" X 12" BAG PLANTS NURSERY as per FSR 2020-21**

Sl. No.	FSR item No	Nature of work	Qty	Rate	Unit	Amount	Remarks
1	<b>01.04.01</b>	Watering polybag secondary beds twice a day for 4 months (a) Manually with rose cans or finely perforated nozzle attached to a hose pipe	1 Bed	286.76	Per bed/month	1147.04	
2	<b>01.04.02</b>	Weeding once during maintenance year	1 Bed	52.66	Per bed/weeding	210.64	
3	<b>01.04.03</b>	Shifting, grading and re-arranging in beds for 10 m X 1 m size bed max. two shifts (one in April and another in June)	1 Bed	245.96	Per bed/shifting	491.92	
4	<b>01.04.05</b>	Cost of foliar nutrient formulations like NPK-19:19:19; fungicides and insecticides (from April - August)	As per actuals			10.00	
5	<b>01.04.06</b>	Cowdung Slurry application (One can apply chemical foliar spray or apply cowdung slurry -not both) (a) Cost and transportation of fresh cowdung				25.00	
6	<b>01.04.08</b>	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.	5% of the estimate			84.00	
		<b>for 800 plants</b>				<b>1968.60</b>	
		<b>Per on Plant</b>				<b>2.46</b>	

  
 Forest Divisional Officer  
 Nirmal



## UNIT COST FOR ADVANCE OPERATIONS IN NTSHW PLANTATION in SMM Method

As per FSR 2020-21

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Survey with GPS (Only staff to carry out)	02.08.01	1	No.	374.48	1	No.	180
	<b>Preparation of site for planting by clearing thorny unsaleable, unusable jungle growth, creepers, bushes etc. spreading the cut material allover the site and burning the same.</b>							
2	Very Light Jungle growth (>10% and upto 20% ground area covered with Jungle growth)	02.08.02	0.50	Ha	3128.53	1	Ha	1564
3	Light Jungle growth (>20% and upto 30% ground area covered with Jungle growth)		0.50	Ha	7350.00	1	Ha	3675
	<b>Uprootal of stumps to a depth of 45 cm (excluding unsuitable patches) with heavy machinery fitted with 0.90 cum and above capacity bucket, filling the pits caused by uprootal and levelling.</b>							
4	Very Light Jungle growth (>10% and upto 20% ground area covered with Jungle growth)	02.08.03	0.50	Ha	10031.10	1	Ha	5016
5	Light Jungle growth (>20% and upto 30% ground area covered with Jungle growth)		0.50	Ha	18454.50	1	Ha	9227
	<b>Collection and removal of uprooted stumps of all sizes, other debris etc., to outside the plantation site.</b>							
6	Very Light Jungle growth (>10% and upto 20% ground area covered with Jungle growth)	02.08.04	0.50	Ha	9197.79	1	Ha	4599
7	Light Jungle growth (>20% and upto 30% ground area covered with Jungle growth)		0.50	Ha	10724.65	1	Ha	5362
	<b>Total</b>							<b>29623</b>

10% escalation every year

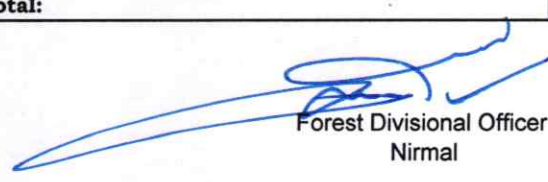


Forest Divisional Officer  
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**UNIT COST FOR RAISING OF NTSHW PLANTATION in SMM method**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Deep ploughing the plantation area to a depth of 30 cm with heavy duty tractor of 45 HP and above across the slope with mould board plough in all types of soils (Un-Tilled Areas) Hard Soils	02.09.02 b	1	Ha	5109.90	1	Ha.	5110
2	Alignment and staking including laying base line for Misc species with espacement 3mX3m (1111 Nos)	02.09.04	1,111	Nos	89.36	100	Nos	993
3	Cost of 0.45 M Stake preparation and transportation to site.	02.09.05	1,111	Nos	56.96	100	Nos	633
4	Digging of Pits in already ploughed areas (45 Cum Pit)	02.09.06	1,111	Nos.	10.66	1	Pit.	11843
5	Transport of bag plants from nursery site to plantation site including loading and unloading upto 5 Km lead	02.09.07	1,111	Nos	243.66	100	Nos	2707
6	Transport of Bag plants / Root trainer plants from nursery site to plantation site including loading and unloading beyond 5 Km - extra for every each Km. 20 Kms. X 7.65 = 153/-	02.09.08	1,111	Nos	171.20	100	Nos	1902
7	Internal transport of bag plants to planting points on head loads.	02.09.10	1,111	Nos	168.84	100	Nos	1876
8	Planting bag plants 45cmX45cmX45 cm pits	02.09.13	1,111	Nos	437.48	100	Nos	4860
9	Replacement of Casualties 20% during Raising & 25% in 1st year	02.09.15						
	© Digging of 45 cm cube size pits		222	Nos	5.33	1	Nos	1184
	Transport of bag plants from nursery site to plantation site including loading and unloading upto 25 Km lead		222	Nos	414.86	100	Nos	922
	Internal transport of bag plants/root trainers to planting points on head loads.		222	Nos	168.84	100	Nos	375
	Planting bag plants 45cmX45cmX45 cm pits		222	Nos	437.48	100	Nos	972
10	Cost of Chemical fertilisers (50grm SSP for basal dressing, 20 grm DAP after planting for 45 cm <sup>3</sup> pits).	02.09.16			As per Actuals			500
11	Application of fertilizer after planting by making 3 holes of 10 cmts depth with crow bar . 10 cmts away from plant and putting fertilizers and closing	02.09.17	1,111	Nos	39.27	100	Nos	436
12	Circular weeding to a radius of 0.5 Mtr by uprooting the weed growth July / Aug	02.09.18	1,111	Nos	124.95	100	Nos	1388
13	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.09.19	1,111	Nos	656.25	100	Nos	7291
	Watering to the plants - 2 waterings	02.09.14 (a & b)	1,111	Nos	529.72	100	Nos	5885
	Cost of preparation of stakes ( 2.00 m length) and transportation to site.( Subject to condition that the seedling height is 1.5. to 2.00 M)	02.09.05 (ii)	1,111	Nos	1200.00	100	Nos	13332
14	Interploughing (during November) the effective ( excluding unsuitable patches ) Plantation area across the slope to a depth of 30 Cm with Heavy duty tractor of 55 HP and above with Firm Mould Board ( FMB) Plough	02.09.20	1	Ha	3184.50	1	Ha	3185
15	Uprootal of Mahaveera weed growth	02.09.36	1	Ha	3650.90	1	Ha	3651
	<b>Total:</b>							<b>69045</b>

10% escalation every year

  
Forest Divisional Officer  
Nirmal



**UNIT COST FOR 1ST YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Replacement of Casualties 25% in 1st year	02.10.01						
	Digging of pits		278	Nos	1066.00	100	Nos	2963
	Transportation of seedlings		278	Nos	359.43	100	Nos	999
	Internal transportation		278	Nos	142.01	100	Nos	395
	Planting		278	Nos	437.48	100	Nos	1216
2	Circular weeding to a radius of 0.5 Mtr by uprooting the weed growth July / Aug	02.10.02	1,111	Nos	124.95	100	Nos	1388
	Application of fertilizer after planting by making 3 holes of 10 cmts depth with crow bar . 10 cmts away from plant amd putting fertilizers and closing	02.09.17	1,111	Nos	39.27	100	Nos	436
	Pruning of flower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
3	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil aaround the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.10.03	1,111	Nos	656.25	100	Nos	7291
4	Uprootal of Mahaveera weed growth	02.10.04	1	Ha	3650.90	1	Ha	3651
5	Inter ploughing with heavy duty tractor of 45 HP to a depth of 30 cm in ordinary soils.	02.10.05	1	Ha	2321.40	1	No.	2321
	<b>Total:</b>							<b>22041</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 2nd YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
	Uprootal of Mahaveera weed growth - 60%	02.10.04	0.6	Ha	3650.90	1	Ha	2191
	Pruning of flower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
<b>Total:</b>								<b>10863</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal



**UNIT COST FOR 3rd YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
<b>Total:</b>								<b>7291</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 4th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
	Pruning of flower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
<b>Total:</b>								<b>8672</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 5th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
<b>Total:</b>								<b>7291</b>

10% escalation every year

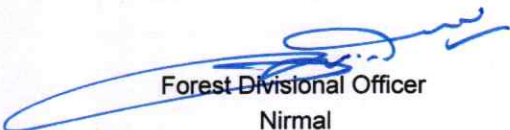
  
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 Nirmal

**UNIT COST FOR 6th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
	Pruning of flower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
<b>Total:</b>								<b>8672</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal



**UNIT COST FOR 7th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
<b>Total:</b>								<b>7291</b>

10% escalation every year

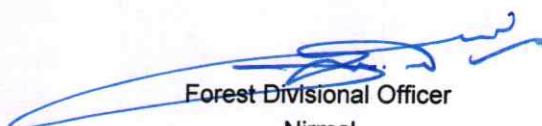
  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 8th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
	Pruning of flower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
<b>Total:</b>								<b>8672</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 9th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
<b>Total:</b>								<b>7291</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal



**UNIT COST FOR 8th YEAR MAINTENANCE OF NTSHW PLANTATION SMM**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	1,111	Nos	656.25	100	Nos	7291
	Pruning of flower branch initials of Timber and NTFP species by scicature upto 1/3 rd height (to be done during July - Aug)	02.10.06	1,111	Nos	124.27	100	Nos	1381
<b>Total:</b>								<b>8672</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**Advance Operations under Labour Intensive Method with 3m x 3m espacement**

*Unit area 1.00 Ha,*

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.01.00	<b>ADVANCE OPERATION (PRE-PLANTING OPERATION)</b>				
02.01.01	Survey with hand-held GPS and demarcation - one manday is allowed for assistance.	1	374.48	Plantation	374
02.01.02	Clearance unsalable unwanted jungle growth Spreading the cut material all over the site; and Burning the same twice till completely burnt.				
	(a) Sparse Jungle growth (<10% ground area )	0.40	2081.36	Ha	833
	(b) Very light jungle growth (>10% and upto 20%)	0.40	3128.53	Ha	1251
	(c) Light Jungle Growth (>20%)	0.20	7350	Ha	1470
02.01.03	Formation of Sector Lines / Fire Lines to a width of 3 m by giving surface treatment (sector to be in conformity with slope direction ). All stumps to be cut to ground level.	3	6.14	Rmt	18
02.01.05	Alignment and stacking including demarcation of baseline				
	(a) 3x3 m espacement	1111	89.36	100 No's	993
02.01.04	Cost of preparation of stakes (0.45 m length) and transportation to site	1111	56.96	100 No's	633
02.01.06	Digging of pits during January to March				
	(b) (ii) 45 cm cube size in hard soil like gravel and moram	1111	25.57	Each	28408
02.01.08	Digging of SCTs	50.6	328.34	cum	16614
SSR	Cost and transportation of soil mixtue for filling half of the pit and spreading around the pit - $0.5 \times 0.5 \times 0.5 = 0.125$ cum ( $0.125 \times 400 = 50$ )	50	231.14	cum	11557
	<b>Unit rate for 2020-21</b>		<b>Total</b>		<b>62151</b>

10% escalation every year

  
 Forest Divisional Officer,  
 Nirmal

**Raising of Plantation under Labour Intensive Method with 3m x 3m espacement**

*Unit area 1.00 Ha.*

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.02.00	<b>Planting Operations during raising year</b>				
02.02.01	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)				
	© 20 X 30 cm (8" x 12") bag plants	1111	206.43	100 Nos.,	2293.00
02.02.02	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance				
	20 X 30 cm (8"X12") bag plants (20*7.65=153)	1111	153.00	100 Nos.,	1700.00
02.02.03	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)				
	(c) 20 X 30 cm (8"X12") bag plants (20*3.85=77.00)	1111	77.00	100 Nos.,	855.00
02.02.04	<b>Internal transportation</b> to planting points on head loads				
	(c) 20 X 30 cm (8"X12") bag plants	1111	142.01	100 Nos.,	1578
	<i>PLANTING: Seedlings of local species of secondary hardwood along with their associates and NTFP species will have to be chosen for planting. The minimum height of the planting stock to be planted is 0.75 m - 1m height (excluding the height of the bag)</i>				
02.02.05	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	39.27	100 Nos.,	436
02.02.06	Cost of SSP, Chloridine dust (50 gm) or Chloropyriphos	As per actual	2000	Ha.	2000
02.02.07	Planting in 45 cm <sup>3</sup> Pit	1111	437.48	100 Nos.,	4860
02.02.09	Watering to the plants - 1 watering	1111	264.86	100 Nos.,	2943
	Watering to the plants - 2 watering	1111	264.86	100 Nos.,	2943
02.02.10	<b>Replacement of Casualties:</b> 20% during Raising Year & 25% in 1 <sup>st</sup> year The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	50% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal transportation same as adopted during raising year			
02.01.06	Digging of pits 45 cm cube size in hard gravelly and moram by machine	222	12.785	Each	2838
02.02.01	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)	222	206.43	100 Nos.,	458
02.02.02	<b>Transportation of Planting Stock</b> (including loading and unloading) more than 5 km distance and upto 25 km distance	222	153	100 Nos.,	340
02.02.03	Transportation of Planting Stock (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)	222	77	100 Nos.,	171
02.02.04	Internal transportation to planting points on head loads	222	142.01	100 Nos.,	315
02.02.07	Planting in 45 cm <sup>3</sup> Pit	222	437.48	100 Nos.,	971



FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.02.11	Cost of DAP @ 25 gm / planting point	1111	0.70	Each	778
02.02.12	Application of fertilizer	1111	39.27	100 Nos.,	436
02.02.13	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	1111	125.00	100 Nos.,	1389
02.02.14	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	125.00	100 Nos.,	1389
02.02.15	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)				
	(b) For hard gravelly soil	1111	656.25	100 Nos.,	7291
02.02.16	Cutting of coppice 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)				
	(b) High rainfall zone > 800 mm	1	1463.28	Ha.	1463
			<b>Total</b>		<b>37447</b>

**37447.00**

**As per FSR 2020-21**

10% escalation every year

Forest Divisional Officer,  
Nirmal

1st year maintenance of Plantation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.03.01	Replacement of Casualties: 20% during Raising Year & 25% in 1 <sup>st</sup> year The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	100% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal transportation same as adopted during raising year			
02.01.06	Digging of pits 45 cm cube size in hard gravelly and moram by machine	278	25.57	Each	7108
02.02.01	Transportation of planting stock (including loading and unloading upto a distance of 5 Kms)	278	206.43	100 Nos.,	574
02.02.02	Transportation of Planting Stock (including loading and unloading) more than 5 km distance and upto 25 km distance	278	153	100 Nos.,	425
02.02.03	Transportation of Planting Stock (including loading and unloading) more than 25 km distance and for every extra km (with prior written approval of Circle Head)	278	77	100 Nos.,	214
02.02.04	Internal transportation to planting points on head loads	278	142.01	100 Nos.,	395
02.02.07	Planting in 45 cm <sup>3</sup> Pit	278	437.48	100 Nos.,	1216
02.03.02	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	1111	125.00	100 Nos.,	1389
02.03.03	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	125.00	100 Nos.,	1389
02.03.04	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)				
	(b) For hard gravelly soil	1111	656.25	100 Nos.,	7291
02.03.05	Cutting of coppice 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)				
	(b) High rainfall zone > 800 m	1	1463.28	Ha.	1463
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			Total		23453

23453.27

10% escalation every year

As per FSR 2020-21

Forest Divisional Officer,  
Nirmal

**2nd year maintenance Plantation under Labour Intensive Method with 3m x 3m espacement**


Unit area 1.00 Ha.

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.04.01	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	1111	125.00	100 Nos.,	1389
02.04.02	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	125.00	100 Nos.,	1389
02.04.03	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)				
	(b) For hard gravelly soil	1111	656.25	100 Nos.,	7291
02.04.04	Cutting of coppice 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)				
	High rainfall zone > 800 mm	1	1463.28	Ha.	1463
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.26	100 Rmt	608
			<b>Total</b>		<b>12140</b>

**12140.26**

10% escalation every year

per FSR 2020-21

  
Forest Divisional Officer,  
Nirmal



3rd year maintenance Plantation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.04.01	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	1111	125.00	100 Nos.,	1389
02.04.03	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)				
	(b) For hard gravelly soil	1111	656.25	100 Nos.,	7291
02.03.06	Pruning of lower branch initials of Timber and NTFP species by sciculture upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>10669</b>

10669.27

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

4th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.04.01	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	1111	113.34	100 Nos.,	1259
02.04.03	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)				
	(b) For hard gravelly soil	1111	595.23	100 Nos.,	6613
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>9861</b>

**9861.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

5th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
02.04.03	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)				
	(b) For hard gravelly soil -1 time	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>9280</b>

**9280.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal



6th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>1989</b>

**1989.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

**7th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement**

**Unit area 1.00 Ha,**

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.04.03	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)				
	(b) For hard gravelly soil -1 time	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>7899</b>

**7899.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

8th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			Total		1989

1989.27

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

9th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.04.03	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)				
	(b) For hard gravelly soil -1 time	1111	656.25	100 Nos.,	7291
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>7899</b>

**7899.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal



**10th year maintenance Plantatation under Labour Intensive Method with 3m x 3m espacement**

Unit area 1.00 Ha,

FSR Item No.	Description	Quantity	Rate (Rs.)	Per	Amount (Rs.)
02.03.06	Pruning of lower branch initials of Timber and NTFP species by scicature upto 1/3 rd height during October	1111	124.27	100 Nos.,	1381
03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	100	608.27	100 Rmt	608
			<b>Total</b>		<b>1989</b>

**1989.27**

As per FSR 2020-21

10% escalation every year

  
Forest Divisional Officer,  
Nirmal

**Name of the work: Unit Cost for Raising of Miyawaki Plantation with 10000 Nos of plants  
(1.00 Ha) area during the year 2020-21**

Sl. No	FSR Item No.	Nature of work	Unit	Qty	Rate (in Rs)	Per	Amount
1	2	3	4	5	6	7	8
	<b>02.09.</b>	<b>PLANTING OPERATIONS DURING RAISING YEAR</b>					
1	<b>02.08.05</b>	Tilling the soil to a depth of 45 cm in the effective area (excluding unsuitable patches) with heavy duty machinery fitted with 0.90 cum and above capacity bucket and levelling - <i>VIP planting area (minimum area should be more than 1 ha area).</i>					
		(a) Sparse Jungle growth (< 10% ground area covered Jungle growth)	Ha	1	16378.65	Ha	16379
2		Cost of seed and broadcasting of Pillipesara / Other Green mannur including all charges	Kgs	25	150.00	Kg	3750
3	<b>02.09.03</b>	Deep Ploughing the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with	Ha	1	3056.00	1	3056
4		Cost & application of COCO pit etc., after tilling for high nutrients.	Tones	1	45000.00	1	45000
5		Cost & application Farm Yard Manure etc., after tilling for high nutrients.	Tones	1	20000.00	1	20000
6	<b>02.09.03</b>	Deep Ploughing the effective (excluding unsuitable patches) plantation area across the slope to a depth of 30 cm with	Ha	1	3056.00	1	3056
		<b>Allignment &amp; Stacking including demarcation of base line</b>					
7	<b>02.09.04</b>	(a) 2X2 m espacement = 2500 planting points	No.	2500	68.72	100	1718
		1X1 m espacement = 7500 planting points	No.	7500	17.18	100	1289
8	<b>02.09.05</b>	i) Cost of preparation of stakes (0.45 m length) and transportation to site	No.	7500	56.96	100	4272
		ii) Cost of preparation of stakes (2.0 m length) and transportation to site (subject to condition that the seedling	No.	2500	1200.00	100	30000
		<b>Digging of Pits in Ploughed Areas in June - July by adopting 50% of original rate of digging of pits of</b>					
9	<b>02.09.06</b>	a) 30 cm <sup>3</sup> pits	Pit	7500	2.36	1	17700
		b) 45 cm <sup>3</sup> pits	Pit	2500	10.66	1	26650
		<b>PLANTING OPERATIONS DURING RAISING YEAR</b>					
		<b>Transportation of Planting Stock (including loading and unloading)</b>					
		<i>From nursery to plantation site - upto 5 Km lead</i>					
10	<b>02.09.07</b>	(a) 12.5 X 22.5 cm (5"X9") bag plants	No.	7500	51.71	100	3878
		(c) 20 X 30 cm (8"X12") bag plants	No.	2500	206.43	100	5161
		<b>Internal transportation to planting points on head loads</b>					
11	<b>02.09.10</b>	(a) 12.5 X 22.5 cm (5"X9") bag plants	No.	7500	59.38	100	4454
		(c) 20 X 30 cm (8"X12") bag plants	No.	2500	142.01	100	3550
		<b>Fortification of seedling with insecticide and treating pits with SSP</b>					
12	<b>02.09.11</b>	a) <i>Application</i> of 50 gm of SSP per pit (1 day before planting) for root growth and early establishment of plant	No.	10000	39.27	100	3927
		b) <i>Cost</i> of SSP, Chloridine dust or Chloropyriphos (10000 x 50 / 500/50 = 10 Bags)	Bag	10	450.00	1	4500
		<b>Planting</b>					
13	<b>02.09.12</b>	i) 30 cm <sup>3</sup>	No.	7500	140.60	100	10545
		ii) 45 cm <sup>3</sup>	No.	2500	437.48	100	10937

14	02.09.15	Replacement of Casualties: 20% during Raising Year. (In case of Eucalyptus: 10% during raising and no casualty replacement for					
		For 5" x 9' bags					
		a) Pitting (50% of Original Rate 2.36 x 50% =1.18)	Each	1500	1.18	1	1770
		b) Transportation of Seedlings- up to 5Kms	No.	1500	51.71	100	776
		c) Internal transporation	No.	1500	59.38	100	891
		d) Planting	No.	1500	140.60	100	2109
		For 8" x 12' bags					
		a) Pitting (50% of Original Rate 10.66 x 50% =5.33)	Each	500	5.33	1	2665
		b) Transportation of Seedlings- up to 5Kms	No.	500	206.43,	100	1032
		c) Internal transporation	No.	500	142.01	100	710
		d) Planting	No.	500	437.48	100	2187
		<b>WEEDING &amp; SOIL WORKING</b>					
15	02.09.18	weeding and Saucer Formation to a radius of 0.50 m around the plant immediately after planting i.e. (during June)	No.	10000	124.95	100	12495
16	02.09.19	b) Circular weeding cum Deep soil working to a radius of 0.5 m and to a depth of 15 cm (to be done by pick-axe only)	No.	10000	656.25	100	65625
17	02.09.25	Cost of Protection: (watcher)	No./Month	10	9194.00	1	91940
18		Drilling of borewell and fixing of pump set including laying of pipeline including all charges.					200000
19		Supply & Fixing of Water tanks (5000 Ltrs x 1 Nos) with pedestals including all charges					70000
20		Supply & Fixing of Sprinklers..etc., including all charges					80000
21		Publicity Boards etc.,					50000
22		Misce unforeseen Expenditure					4978
		<b>Total</b>					<b>807000</b>

10% escalation every year

Forest Divisional Officer  
Nirmal

**UNIT COST FOR 1ST YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
	Replacement of Casualties: 25% during 1 st Year. 50% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal transportation same as adopted during raising year.	02.09.15						
	For 5" x 9 ' bags							
	a) Pitting		Each	1875	2.36	Each	1	885
	b) Transportation of Seedlings- up to 5Kms		No.	1875	51.71	No.	100	388
	c) Internal transporation		No.	1875	59.38	No.	100	445
	d) Planting		No.	1875	140.6	No.	100	1055
	For 8" x 12 ' bags							
	a) Pitting (50% of Original Rate 10.66 x 50% =5.33)		Each	625	5.33	Each	1	1333
	b) Transportation of Seedlings- up to 5Kms		No.	625	206.43	No.	100	516
	c) Internal transportation		No.	625	142.01	No.	100	355
	d) Planting		No.	625	437.48	No.	100	1094
2	Circular weeding to a radius of 0.5 Mtr by uprooting the weed growth July / Aug	02.10.02	10,000	Nos	124.95	100	Nos	12495
3	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil atround the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.10.03	10,000	Nos	656.25	100	Nos	65625
4	Uprootal of Mahaveera weed growth	02.10.04	1	Ha	3650.90	1	Ha	3651
5	Inter ploughing with heavy duty tractor of 45 HP to a depth of 30 cm in ordinary soils.	02.10.05	1	Ha	2321.40	1	No.	2321
<b>Total:</b>								<b>90163</b>

10% escalation every year

  
Forest Divisional Officer  
Nirmal



**UNIT COST FOR 2nd YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

10% escalation every year

  
Forest Divisional Officer  
Nirmal

**UNIT COST FOR 3rd YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>
<b>70% of total quantity proposed</b>								<b>45938</b>

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 4th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**60% of total quantity proposed**

**39375**

10% escalation every year

  
Forest Divisional Officer

Nirmal

**UNIT COST FOR 5th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**60% of total quantity proposed**

**39375**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal



**UNIT COST FOR 6th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**50% of total quantity proposed**

**32813**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 7th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**40% of total quantity proposed**

**26250**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 8th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**40% of total quantity proposed**

**26250**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal

**UNIT COST FOR 9th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil atround the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

30% of total quantity proposed

**19688**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal



**UNIT COST FOR 10th YEAR MAINTENANCE OF Miyawaki Plantation**

**As per FSR 2020-21**

Sl. No	Item of work	Code No.	Quantity		Rate	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 15 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil ataround the plant to 10cm wide but weeding that part of area by hand and formation of saucer in ordinary soils.	02.11.01	10,000	Nos	656.25	100	Nos	65625
<b>Total:</b>								<b>65625</b>

**30% of total quantity proposed**

**19688**

10% escalation every year

  
 Forest Divisional Officer  
 Nirmal