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**CA SCHEME FOR DIVERSION OF
ADDITIONAL FOREST AREA TO BE
DIVERTED FOR CONSTRUCTION OF
BARRAGE AND MAIN CANAL OF
DR B.R. AMBEDKAR PRANAHITHA PROJECT
PACKAGE No-I**

S No	Range	Beat	R.F.Block	Compt. No.	Bit Nos	Area in Hectares
1	2	3	4	5	6	7
1	Karjelly	Babapur	Gangapur	169	Bit-I	3.4409
2		Babapur	Gangapur	169	Bit-II	12.4088
3		Babapur	Gangapur	169	Bit-III	15.6748
4	Sirpur	Gudlabori	Hetti	166	Bit-IV	23.4744
				Total		54.9989

**KOUTALA & CHINTHALAMANEPALLY
MANDALS OF KUMRAMBHEEM-ASIFABAD
DISTRICT
IN KAGHAZNAGAR DIVISION
ADILABAD CIRCLE
AREA (60.1099 Ha.)**

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CA SCHEME FOR DIVERSION OF ADDITIONAL FOREST AREA TO BE DIVERTED FOR CONSTRUCTION OF BARRAGE AND MAIN CANAL FOR DR. B.R. AMBEDKAR PRANAHITHA PROJECT-PACKAGE NO-I, KOUTALA & CHINTHALAMANEPALLY MANDALS OF KUMRAMBHEEM-ASIFABAD DISTRICT.

1.0 INTRODUCTION:

The Chief Engineer (Projects), Adilabad has submitted the proposals for diversion of additional **54.9989 Ha** of Forest Land for non-forestry purpose i.e., construction of Barrage at Tumidihetti (v) and main canal for **Dr. B.R. Ambedkar Pranahitha Project** in Package No-I in Koutala & Chinthalamanepally Mandals of Kaghaznagar Forest Division of Kumrambheem-Asifabad District, for transfer of the Government land to an extent of **60.1099 Ha** towards Compensatory Afforestation purpose in Sy. No. 57 of Kammergaon village of Penchiklapet Mandal which falls in Kaghaznagar Forest Division.

1.1 Accordingly **60.1099 Ha** of land i.e., in Sy. No. 57 of Kammergaon village of Penchiklapet Mandal is proposed by the Revenue Authorities to allotted under CA. The area proposed for CA is having existing tree growth and coppice growth with the species like *Maduca indica(Ippa)*, *Terminalia tomentosa(Nalla maddi)*, *Diospyros melanoxylon (Tuniki)*, *Cliستانthus collinus (Nalla Kodisha)*, *Boswelvia serrata (Andugu)*, *Anogeissus latifolia (Thirman)*, Buddi Pala and other Misc. species. The area is upland and mostly stony in nature having good vegetation having steep slopes at some places and covered with Rocky Morrum soils. The area proposed for CA is existing with the tree growth and good root stock of above mentioned species and the same area is proposed to be taken up for Compensatory Afforestation.

1) **Compensatory Afforestation:** It is proposed to raise CA in the area to be taken over from Revenue Authorities i.e. the Government land in **60.1099 Ha.** The area is having slopes for which Protection and SMC like, CCT, CPT, Checkdams and Percolation tanks, Weeding and Soil Working to Saplings of desirable species, singling & coppicing and plantations are proposed. The proposals have been prepared to take up Intensive Protection, Coppicing and

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Singling of the existing valuable species like long rotation high value timber species and the details of Compensatory Afforestation scheme proposals are as follows.

SL No	Sy No	Village	Mandal	Total Area Ha.	Name of the adjacent RF	Distance from RF to land
1	57	Kammergaon	Penchikalpet	60.1099	Bejjur	adjoining
			Total	60.1099		

The proposals have been prepared with a cost of Rs 6,94,00,000/- (Rupees Six Crores Ninty Four lakhs Only). The year wise scheme proposals are annexed as (Appendix – II)

This scheme will be monitored through the machinery of Forest Department at various levels.

The Compensatory Afforestation scheme is prepared over an area of **60.1099 Ha** for the period for (12) years basing on the Forest Schedule of Rates for the year 2016-17 of Adilabad Circle with an escalation of 15% for 2017-18 and with an annual escalation of 15% for the subsequent years, provided the funds are to be deposited and released during the year 2017-18.

Sl No	Year	Forestry Works
1	2017 -18	15090963
2	2018-19	15332637
3	2019-20	2939869
4	2020-21	2146114
5	2021-22	2468079
6	2022-23	2838245
7	2023-24	3263970
8	2024-25	3753581
9	2025-26	4316617
10	2026-27	4964136
11	2027-28	5708742
12	2028-29	6565037
	Total	69387990 6,94,00,000

2.0 AIMS AND OBJECTIVES:

The objectives of the scheme are as follows.

- 2.1 To create small timber and fuel wood resources to meet the needs of the local public.
- 2.2 To reduce pressure on the already depleted resource requirements of small timber, fuel and fodder of local tribal people.

- 2.3 To fulfill broader objective of sustainable environmental conservation for the general good of the people.

To fulfill the above objectives, it is proposed to take-up the Afforestation over an area which is equivalent to the area proposed for diversion for non-forestry purpose. In this Division as against the additional Forest area to be diverted for 54.9989 Ha non-forest area of 60.1099 Ha is identified for CA. The plantations will be taken-up with the species like Kanuga, Vepa, Teak, Gummadi Teak etc., and with fuel wood, fodder and locally suitable NTFP & NTSHW species.

3.0 ELEMENTS OF THE PROJECT

- 3.1. Details of the lands identified for raising compensatory afforestation are as follows.

Sl. No.	Division	Range	Mandal	Near RF	Near Compt. No.	Area proposed in Ha.
1	Kaghaznagar	Penchikalpet	Penchikalpet	Bejjur	267	60.1099
			Total			60.1099

3.2 NAME OF THE SCHEME

Compensatory Afforestation for **“Construction of Barrage and main canal for Dr BR. Ambedkar Pranahitha Project** in Package No-I, Koutala & Sirpur Mandals of Kaghaznagar Forest Division of Kumrambheem-Asifabad District”.

3.3 SITUATION

The proposed Compensatory Afforestation area is situated adjacent to the RF Block Bejjur (Kaghaznagar Division) near Compt. No. 267 of Kammergaon Beat of Penchikalpet Range, Bejjur Mandal and Giravelli R.F (Bellampally Division) Gopalpet Beat, Rampur Section of Kushnepally Range and fit for CA scheme.

3.4 GEOLOGY

The geology of the proposed area for Compensatory Afforestation is the youngest of the Gondwanas in this area which includes conglomerates, sandstones, shales and clays. The conglomerates are made up of rounded to sub-rounded pebbles of quartz, quartzite, chert and jasper. The Sub- Cretaceous – Eocene – Deccan Trap, Late Precambrian – Salluvai series, Archaean Granites, Gneisses and schists.

3.5 SOIL

The soils of area proposed for Compensatory Afforestation area vary with the underlying rock formation. The Deccan tract gives rise to black cotton soils. The later disintegrates to form "murram". Sand stones give rise to sandy or loamy soils and gives rise to black soils. Composite gneisses yield black loamy and granites brown sandy soils.

General distribution of soils in the Division

- | | |
|--------------------------------|--|
| 1. Black cotton soils: | 50 % found mostly in Bejjur & Karjelly Ranges. |
| 2. Chalka and Red loams Soils: | 27% Found mostly in Bejjur, Karjelly, Sirpur and Kaghaznagar Ranges. |
| 3. Sandy loams and other: | 8% Mostly in Kaghaznagar and Sirpur Ranges. |
| 4. Saline & Alkaline soils: | 2% Scattered and found in small patches in the Division. |

3.6 CLIMATE :

The climate is fairly dry with very hot summer and cool winters. During summer, the temperature rises upto 47 degree centigrade. Summer and winter are separated by prolonged rainy season. The area is served by South-West Monsoon. However, Cyclonic rains are common during October – December.

3.7 RAINFALL :

Rainfall is mostly from the Southwest monsoon, cyclonic rains during October – December are quite common. The normal rainfall in a year ranges from 1000 mm to 1100 mm. The average rainfall for the past (12) years is 1051 mm.

3.8 EXISTING VEGETATION:

The area is having vegetation of *Maduca indica(Ippa)*, *Terminalia tomentosa(Nalla maddi)*, *Diospyros melanoxylon (Tuniki)*, *Cliستانthus collinus (Nalla Kodisha)*, *Boswelvia serrata (Andugu)*, *Anogeissus latifolia (Thirman)*, Buddi Pala etc.,

3.9 AGENCY RESPONSIBLE FOR AFFORESTATION:

The afforestation programme will be implemented by the Telangana Forest Department through the Forest Divisional Officer, Kaghaznagar.

3.10 DETAILS OF WORK SCHEDULE PROPOSED FOR COMPENSATORY AFFORESTATION

The details of work schedule proposed for compensatory afforestation year wise is as follows.

Year	Proposed works
2017 -18	1) Raising of Primary Beds Nursery 2) Raising and conversion of nursery 3) Advance operations in Plantations 4) Development and improvement and extension of Nursery infrastructure for CA scheme at Penchikalpet Village. 5) Erection of chain link mesh fence around the CA area
2018-19	1) Raising of Primary Beds Nursery 2) Raising and Conversion of Nursery 3) Maintenance of Nursery 4) Raising of Plantations 5) SMC, CPT, Check dams and Percolation tanks 6) Weeding and Soil Working to Saplings of desirable species 7) Construction of boundary pillars 8) Solar Systems (Range Offices at Penchikalpet and Karjelly)
2019-20	1st Year maintenance of plantation
2020-21	2nd Year maintenance of plantation
2021-22	3rd Year maintenance of plantation
2022-23	4th Year maintenance of plantation
2023-24	5th Year maintenance of plantation
2024-25	6th Year maintenance of plantation
2025-26	7th Year maintenance of plantation
2026-27	8th Year maintenance of plantation
2027-28	9th Year maintenance of plantation
2028-29	10th Year maintenance of plantation

3.11 COST STRUCTURE:

A compensatory afforestation scheme for **Rs. 6,94,00,000/-** is prepared (Appendix-I). The year wise expenditure will be as hereunder.

SI No	Year	Forestry Works
1	2017 -18	15090963
2	2018-19	15332637
3	2019-20	2939869
4	2020-21	2146114
5	2021-22	2468079
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10	2026-27	4964136
11	2027-28	5708742
12	2028-29	6565037
	Total	69387990 6,94,00,000

This scheme will be monitored through the machinery of Forest Department at various levels.

4.0 SCHEME COMPONENT:

The area identified for Compensatory Afforestation is upland and having slopes with good natural vegetation. It is proposed to take up afforestation with Aided Natural Regeneration method in the area having good vegetation cover by filling up small gaps by planting local species, singling & coppicing etc., and pit & planting in open patches under Labour Intensive Method with species like Kanuga, Vepa, Teak, Gummadi Teak etc., and with fuel wood, fodder and locally suitable NTFP & NTSHW species. Protect the plantation from biotic interference by providing cattle proof trench, watch and ward and from fire by way of control burning of the fire lines. The plantation would be maintained for (10) years after planting.

4.1 COST STRUCTURE OF PLANTATIONS :

The cost structure of Compensatory Afforestation including the cost structure for various components of raising and maintenance of planting stock and the plantation is appended (**Appendix-I**).

4.2 PROVISION OF FUNDS :

The funds for the Compensatory Afforestation have to be deposited by the user agency i.e., The Chief Engineer (Projects), Adilabad Dr. B.R. Ambedkar Pranahitha Project in favour of Telangana Forest Department. These funds will be utilized by the Forest Divisional Officer, Kaghaznagar for raising nurseries, plantations and their maintenance as per the detailed annual plan after obtaining the approval and funds from the competent authority.

5.0 PLANTING TARGETS AND STAFF REQUIREMENT :

The area identified for the Compensatory Afforestation to an extent of **60.1099 Ha** of Kaghaznagar Division, the details as follows.

Sl. No.	Division	Range	Mandal	Near RF	Near Compt No.	Area proposed in Ha.
1	Kaghaznagar	Penchikalpet	Penchikalpet	Bejjur	267	60.1099
			Total			60.1099

The above CA area is proposed to be raised under various models as per site condition. The details are as follows.

Sl. No.	Range	Village	Area proposed in Ha.	Model wise area to be afforested	
				LI 3x2m	ANR
1	Penchikalpet	Kammargaon	60.1099	40	20.1099
	Requirement of seedlings				
		Raising	60.1099	88000	10618
		Replacements for 1 st year	60.1099	18304	2212
			60.1099	106304	12830

Hence it is proposed to raise the following seedlings for raising and for replacement of casualties in maintenance of plantation.

- 1) For Raising of plantations 60.1099 Ha. 98,618 Seedlings.
 - 2) For casualties in maintenance 60.1099 Ha. 20,516 Seedlings
- Total 1,19,134 Seedlings**

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5.1 OFFICE EXPENSES AND CONTINGENCIES RECURRING:

The amount proposed towards office expenses, contingent expenses are appended (Appendix-I & II)

5.2 CAPITAL EXPENDITURE NON – RECURRING

No amount is proposed towards non-recurring expenditure

5.3 SCHEME PERIOD :

This scheme will be implemented over a period of (12) years commencing from 2017-18. The details of cash flow required for the entire project period for recurring and non recurring expenditure is furnished in Appendix-I & II.

5.4 DETAILS OF PROPOSED MONITORING MECHANISM:

The Chief Conservator of Forests, Adilabad Circle, Adilabad shall monitor the implementation of the conditions of Compensatory Afforestation and the survival of the plants planted.

Forest Divisional Officer,
Kaghaznagar

ABSTRACT FOR RAISING OF NURSERY AND PLANTATION IN C.A. LAND IN SY. NO. 57 OF KAMMERGAON VILLAGE OF PENCHIKLAPET

ABSTRACT FOR RAISING OF NURSERY AND PLANTATION IN C.A. LAND IN SY. NO. 57 OF KAMMERGAON VILLAGE OF PENCHIKLAPET																			
Sl. No.	Item of work	YEAR WISE REQUIREMENT OF FUNDS																	
		2017-18			2018-19			2019-20			2020-21			2021-22			2022-23		
		Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount
1	Raising of Nursery & Plantation:																		
	a) Primary beds	50	989	49450	50	1137	56850												
2	b) Raising and Convesion of Nursery	99000	9.61	951390	21000	11.06	232260												
3	Maintenance of Nursery				99000	3.49	345510	21000	4.02	84420									
	Advance operations (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method	40	44045	1761800															
4	Raising of plantation (Area in Ha.)	20.1099	15295	307581															
	3m x 2m LI method																		
	ANR method				40	50520	2020800												
	a) SMC works				20.1099	21689	436164												
	b) Digging of trench work around CA Plantation				60.1099		2326410												
	c) Construction of Check dams				60.1099		2380500												
	d) Formation of Percolation tanks (1 Major, 2 Medium, 10 Mini)				1		1520875												
	e) Saplings of desirable species in natural forests, weeding of miscellaneous growth				13		2205269												
					24044		455032												
5	1st Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method							40	52318	2092720									
								20.1099	24638	495468									
6	2nd Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
7	3rd Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method										40	36729	1469160						
	ANR method										20.1099	23961	481853						
8	4th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method													40	42239	1689560			
	ANR method													20.1099	27556	554148			
9	5th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																40	48574	1942960
	ANR method																20.1099	31689	637263
10	6th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
11	7th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
12	8th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
13	9th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
14	10th Year maintenance of plantation (Area in Ha.)																		
	3m x 2m LI method																		
	ANR method																		
15	Erection of chainlink mesh fence			6035200															

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ABSTRACT FOR RAISING OF NURSERY AND PLANTATION IN C.A. LAND IN SY. NO. 57 OF KAMMERGAON VILLAGE OF PENCHIKLAPET

Sl. No.	Item of work	YEAR WISE REQUIREMENT OF FUNDS																	
		2017-18			2018-19			2019-20			2020-21			2021-22			2022-23		
		Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount
16	Construction of boundary pillars				105	10000	1050000												
	Total			9105421			13029670			2672608			1951013			2243708			2580223
	Administrative Cost 10%			910542			1302967			267261			195101			224371			258022
17	Development and improvement and extention of Nursery infrastructure for CA scheme	1		3075000															
18	Solar Systems (Range Offices at Penchikalpet and Karjelly)				2		1000000												
19	Monitoring Cell for monitoring of diverted lands and CA lands			2000000															
	Total			5075000			1000000			0			0			0			0
	Grand Total			15090963			15332637			2939869			2146114			2468079			2838245

MANDAL WHICH FALLS IN KAGHAZNAGAR FOREST DIVISION

Sl. No.	Item of work	2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			Total
		Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	
1	Raising of Nursery & Plantation:																			
	a) Primary beds																			
	b) Raising and Convesion of Nursery																			106300
2	Maintenance of Nursery																			1183650
3	Advance operations (Area in Ha.)																			429930
	3m x 2m LI method																			
	ANR method																			1761800
4	Raising of plantation (Area in Ha.)																			307581
	3m x 2m LI method																			
	ANR method																			2020800
	a) SMC works																			436164
	b) Digging of trench work around CA Plantation																			2326410
	c) Construction of Check dams																			2380500
	d) Formation of Percolation tanks (1 Major, 2 Medium, 10 Mini)																			1520875
	e) Saplings of desirable species in natural forests, weeding of miscellaneous growth																			2205269
5	1st Year maintenance of plantation (Area in Ha.)																			455032
	3m x 2m LI method																			
	ANR method																			2092720
6	2nd Year maintenance of plantation (Area in Ha.)																			495468
	3m x 2m LI method																			
	ANR method																			1469160
7	3rd Year maintenance of plantation (Area in Ha.)																			481853
	3m x 2m LI method																			
	ANR method																			1689560
8	4th Year maintenance of plantation (Area in Ha.)																			554148
	3m x 2m LI method																			
	ANR method																			1942980
9	5th Year maintenance of plantation (Area in Ha.)																			637263
	3m x 2m LI method	40	55860	2234400																
	ANR method	20.1099	36442	732845																2234400
10	6th Year maintenance of plantation (Area in Ha.)																			732845
	3m x 2m LI method				40	64239	2569560													
	ANR method				20.1099	41909	842786													2569560
11	7th Year maintenance of plantation (Area in Ha.)																			842786
	3m x 2m LI method																			
	ANR method							40	73875	2955000										2955000
12	8th Year maintenance of plantation (Area in Ha.)							20.1099	48195	969197										969197
	3m x 2m LI method																			
	ANR method										40	84957	3398280							3398280
13	9th Year maintenance of plantation (Area in Ha.)										20.1099	55424	1114571							1114571
	3m x 2m LI method																			
	ANR method													40	97700	3908000				3908000
14	10th Year maintenance of plantation (Area in Ha.)													20.1099	63738	1281765				1281765
	3m x 2m LI method																			
	ANR method																40	112355	4494200	4494200
15	Erection of chainlink mesh fence																20.1099	73298	1474015	1474015
																				6035200

MANDAL WHICH FALLS IN KAGHAZNAGAR FOREST DIVISION

Sl. No.	Item of work	2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			Total
		Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount	
16	Construction of boundary pillars																			
	Total			2967245			3412346			3924197			4512851			5189765			5968215	1050000
	Administrative Cost 10%			296725			341235			392420			451285			518977			596822	5755726
17	Development and improvement and extention of Nursery infrastructure for CA scheme																			
18	Solar Systems (Range Offices at Penchikalpet and Karjelly)																			3075000
19	Monitoring Cell for monitoring of diverted lands and CA lands																			1000000
	Total			0			0			0			0			0			0	2000000
	Grand Total			3263970			3753581			4316617			4964136			5708742			6565037	69387988

Or 6,94,00,000
Lakhs 694.00
Crores 6.94

Forest Divisional Officer
Kaghaznagar

UNIT COST FOR RAISING OF Misc. PRIMARY BEDS NURSERY FOR THE YEAR 2016-17


1723

Sl. No.	FSR item No.	Nature of work	Qty		Rate	Unit	Amount	Remarks
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.								
	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	4	
	01.01.03	Digging soil of the demarcated beds of 1x1x0.30 m size	1	Bed	33.26	1	33	
	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	1	25	
	01.01.06	Cost and transport of 0.025 cum FYM	1	Bed	21.87	1	22	
	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 levelling.	1	Bed	9.45	1	9	
	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	1	11	
	01.01.09	Soil drenching with 0.1% Carbendazim (10 gm or 10 ml of Carbendazim in 1 lit of water)	1		By Nursery Watcher		0	
	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		As per special instruction under FSR		500	
	01.01.11	Seed dressing with Captan or Thiram at 3-5 gm / kg of seeds (the insecticide should be mixed with 250 gm of ash and then this should be thoroughly mixed with seeds to be sown after pretreatment and before sowing)	1		By Nursery Watcher		0	
	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	1	11	
	01.01.13	Watering the primary nursery beds with rose water cans twice daily for a maximum period of 2 months.	1	Bed/ 2 months	12.10	1	24	
	01.01.14	Kerbing the primary beds all around with Cement Bricks (in permanent nurseries only) , if required. In all such permanent primary beds, no incurring of expenditure for making the primary beds every year is permitted except for cost of fungicides. This item has to be done with prior written approval of DFO	1	Per Bed	As per CSSR		200	
	01.01.15	Cost of chemicals, fungicide and insecticide			As per actuals limited to Rs. 1000/- per 1 lakh seedlings in primary bed stage		20	
	01.01.16	Application of Fungicide and insecticide with power-driven back-pack mechanized sprayer as used in agricultural fields to spray insecticide.	1	By Nursery Watcher			0	
							859	

Or **860** Per Bed

UNIT RATE :

860.00 As per FSR 2016-17
 989.00 As per FSR 2017-18 (15% Escalation charges added)
 1137.35 As per FSR 2018-19 (15% Escalation charges added)


 Forest Divisional Officer
 Kaghaznagar

UNIT COST FOR RAISING OF 50,000 BAG PLANTS NURSERY FOR 2017-18 (size of bag 5"x9") and Convesion to 8" x 12"

725

Sl. No.	FSR item No.	Nature of work	Qty		Rate	Unit	Amount	Remarks
	01.03.	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.						
		From July to October for 4 Months						
		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).						
	01.03.01	Site preparation for New Sites - Clearing of growth, uprootal of stumps and removal of surface stones, rubbish of all sorts etc.	30	Bed	44.12	1	1324	
		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	ii) 12.5 cm x 22.5 cm (5" x 9") size bags: 200 g 366 bags / kg	150	Kgs	159.00	1	23850	
		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) 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	50000	Bags	348.16	1000	17408	
		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 (15 Kms x 9.07 = 136.05)	50000	Bags	136.05	1000	6803	
		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	ii) 12.5 cm x 22.5 cm (5" x 9") size bags: 1700 bags / bed	50000	Bags	830.95	10000	4155	
	01.03.11	Alignment of beds including alignment of inspection paths etc	30	Bed	6.59	1	198	
	01.03.12	Pricking out seedlings from primary beds and transplanting into polybags	50000	Bags	122.74	1000	6137	
	01.03.13	Sowing / dibbling of pretreated seeds (e.g. Yegisa, Nalamadi, Yerumaddi etc.) directly into bags including cost of treatment	0	Bags	73.01	1000	0	
		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 for 4 Months	30	Bed / 4 months	238.19	1	28583	
	01.03.15	b) Mechanically with sprinkler sets fitted all along the beds at a height of 75-100 cm height.	0	Bed / month	66.2	1	0.00	
		Weeding the plants from July to October (3 times)						
	01.03.16	1 st weeding - July	30	Bed / weeding	43.74	1	1312	
	01.03.17	2 nd weeding - Aug	30	Bed / weeding	43.74	1	1312	
	01.03.18	3 rd weeding - Sept	30	Bed / weeding	43.74	1	1312	
		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.	30	Bed / shifting	204.28	1	6128	
	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)	3	Bed	58.00	1	174	
	01.03.21	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides from July to Oct.		As per actuals with a maximum limit of Rs. 2000/ per 1 lakh polybag seedlings.			1000	

Sl. No.	FSR item No	Nature of work	Qty		Rate	Unit	Amount	Remarks
	01.03.22	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	
	01.03.23	Weeding in the space between the beds, inspection path and surroundings of Nursery	30	Bed	29.81	1	894	
	Page No VIII of FSR 2016-17	Nursery Watcher from April to October for 7 Months	7	Month	5820	1	40740	
		Sub total					141330	
		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).						
		From November to March for 5 Months						
		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 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) Distance up to 5 km						
	01.03.24	i) RT plants to 6"x12" polybags						
	01.03.25	ii) RT plants to 8"x12" polybags	1000		494.29			
	01.03.26	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	1000		1013.45			
	01.03.27	iv) 4" x 7" to 8" x 12" polybags (3.82 - 0.56 = 3.26 cum)	1000		494.29			
	01.03.28	v) 5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum)	1000		1013.45			
		b) For every extra km beyond 5 km upto 25 km	50000	Nos	864.05	1000	43203	
	01.03.29	i) RT plants to 6"x12" polybags		Nos/Km	12.88	1000 No. / km		
	01.03.30	ii) RT plants to 8"x12" polybags		Nos/Km	26.41	1000 No. / km		
	01.03.31	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)		Nos/Km	12.88	1000 No. / km		
	01.03.32	iv) 4" x 7" to 8" x 12" polybags (3.82 - 0.56 = 3.26 cum)		Nos/Km	26.41	1000 No. / km		
	01.03.33	v) 5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum) (15 Km x 21.87 = 328.05)	50000	Nos/Km	328.05	1000	16403	
		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)						
	01.03.34	i) RT plants to 6"x12" polybags	1000		870.78			
	01.03.35	ii) RT plants to 8"x12" polybags	1000		1785.38			
	01.03.36	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	1000		870.78			
	01.03.37	iv) 4" x 7" to 8" x 12" polybags (3.82 - 0.56 = 3.26 cum)	1000		1785.38			
	01.03.38	v) 5" x 9" to 8" x 12" polybags (3.82 - 1.12 = 2.70 cum)	50000	Nos	1478.68	1000	73934	
		Conversion into 10" x 16" bags for only SF Divisions is permitted (No. to be finalized with due approval from Circle Head) to make tall plants of at least 2 m height (excluding the height of bags). The transplanted seedlings at the time of conversion to 10" x 16" bags shall be at least 75 cm height (excluding the height of bags).						
		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 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.						
	01.03.39	i) 6" x 12" to 10" x 16" polybags (8.35 - 2.15 = 6.20)	1000		2589.74	0		
	01.03.40	ii) 8" x 12" to 10" x 16" polybags (8.35 - 3.82 = 4.53)	1000		1892.18	0		

17.27

1729

Sl. No.	FSR item No	Nature of work	Qty		Rate	Unit	Amount	Remarks
		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						
	01.03.41	i) 6" x 12" to 10" x 16" polybags (8.35 - 2.15 = 6.20)		1000	3395.48		0	
	01.03.42	ii) 8" x 12" to 10" x 16" polybags (8.35 - 3.82 = 4.53)		1000	2480.89		0	
	01.03.43	Stakes to be provided to plants to tall Plants in 10"x16" bags		1000	2160		0	
		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	1 st weeding - December	63	Bed / weeding	43.74	1	2756	
	01.03.45	2 nd weeding - February	63	Bed / weeding	43.74	1	2756	
	01.03.46	Shifting, Grading and rearranging in secondary beds - One Grading in February	63	Bed / weeding	204.28	1	12870	
		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	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe for 5 months	63	Bed / 5 months	238.19	1	75030	
	01.03.48	b) Mechanically with sprinkler sets fitted all along the beds at a height of 75-100 cm height.	0	Per bed / month	66.20	1	0	
	01.03.49	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 Dec - March) 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	
	01.03.50	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from Dec - March)		As per actuals with a maximum limit of Rs. 20000 per 1 lakh polybag seedlings.			1000	
	Page No. VIII of FSR 2016-17	Nursery Watcher from November to March for 5 Months	5	Month	5820	1	29100	
	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 raising year			19618	
		Sub total					276670	
		Gran total					418000	

Per 50000 Bags or **418000**

UNIT RATE :

418000.00 As per FSR 2016-17

480700.00 As per FSR 2017-18 (15% Escalation charges added)

552805.00 As per FSR 2018-19 (15% Escalation charges added)

OR

8.36 Per Plant - 2016-17

9.61 Per Plant - 2017-18

11.06 Per Plant - 2018-19


 Forest Divisional Officer
 Kaghaznagar

1731

UNIT COST FOR MAINTENANCE OF BAG PLANTS NURSERY FOR 2018-19 (size of bag 8"x12")

Sl. No.	FSR item No.	Nature of work	Qty		Rate	Unit	Amount	Remarks
	01.04.	MAINTAINANCE YEAR OF NURSERY						
		MAINTAINANCE OF BAG PLANTS NURSERY UPTO PLANTING SEASON (APRIL TO AUGUST) <i>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" X 12" bags; 800 Nos. of 8" X 12" bags; 400 Nos. of 10" X 16" bags per bed)</i>						
		Watering polybag secondary beds twice a day for 4 months						
	01.04.01	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe (From April to July for 4 months)	63	Bed / 4 months	238.19	1	60024	
	01.04.02	b) Mechanically with sprinkler sets fitted all along the beds at a height of 75-100 cm height.	0	Bed / month	66.2	1	0	
	01.04.03	Weeding once during maintenance year	63	Bed / weeding	43.74	1	2756	
	01.04.04	Shifting, grading and re-arranging in beds for 10 m X 1 m size bed <i>max. two shifts</i> (one in April and another in June)	63	Bed / 2 times shifting	215.68	1	27176	
	01.04.05	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)	63	By Nursery Watcher			0	
	01.04.06	Cost of foliar nutritient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from April - August)	63	As per actuals with a maximum limit of Rs. 2000/- per 1 lakh polybag seedlings			1000	
		Cowdung Slurry application (<i>One can apply chemical foliar spray or apply cowdung slurry - not both</i>)						
	01.04.07	Preparation of cowdung slurry -	63	per 100 beds	As per actual subject to maximum of Rs. 1500/-		945	
	01.04.08	Application of cowdung slurry - only once between April to June - <i>Watering should not be done 12 hours before and after application of cowdung slurry treatment.</i>	50000	Nos	178.79	1000	8940	
	01.04.09	Weeding in the space between the beds , inspection path and surroundings of Nursery	63	Beds	24.03	1	1514	
	01.04.10	Contingencies for Maint. 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.			6365	
	Page No VIII of FSR 2016-17	Nursery Watcher from April to July for 4 Months	4	Month	5820	1	23280	
							132000	

Per 50000 Bags or **132000**

UNIT RATE :

132000.00 As per FSR 2016-17

151800.00 As per FSR 2017-18 (15% Escalation charges added)

174570.00 As per FSR 2018-19 (15% Escalation charges added)

200755.50 As per FSR 2019-20 (15% Escalation charges added)

2.64 Per plant 2016-17

3.04 Per plant 2017-18

3.49 Per plant 2018-19

4.02 Per plant 2019-20

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Kaghaznagar

1733

ESTIMATE FOR Identification and marking of saplings of desirable species in natural forests, weeding of miscellaneous growth IN C.A. AREAS

Sl. No.		Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	04.02.01	Identification and marking of saplings of desirable species in natural forests, weeding of miscellaneous growth upto a radius of 1M around the selected saplings and Soil working around 0.50 M radius of selected saplings to a depth of 10cm .(Not to be carried out around dressed teak stumps). 60.1099 Ha @ 400 = 24044 saplings	24044	14.31	Per sampling	344070	
		TOTAL:				344070	


344070 As per FSR 2016-17

395680 As per FSR 2017-18 (15% Escalation charges added)

455032 As per FSR 2018-19 (15% Escalation charges added)

523287 As per FSR 2019-20 (15% Escalation charges added)

523287


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1735

ESTIMATE FOR SMC WORKS IN C.A. PLANTATION AREAS

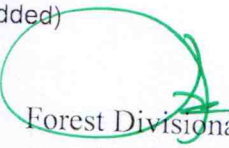
Sl. No.		Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	02.01.20	SMC works like Digging of CCT @ 150 Cmt. per 1 Ha. for 60.1099 Ha.x 150= 9016 Cmt in the plantation areas	9016	193.99	Per Cmt.	1749014	
2		Misc. like cost of implements				10086	
			TOTAL:			1759100	

1759100 As per FSR 2016-17

2022965 As per FSR 2017-18 (15% Escalation charges added)

2326410 As per FSR 2018-19 (15% Escalation charges added)

2326410


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 Kaghaznagar

1737


UNIT COST DIGGING OF TRENCH WORK AROUND THE C.A. PLANTATION AREA

Sl. No.	FSR Item No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	05.08.12	Digging of Cattle proof trench around the 60.1099 Ha. with size of 2.00 width and 2.00 mtr. Depth (total 5248 Rmt.)	20992	85	Per Cmt.	1784320	
		2x2/2 x 2 = 4.00 Cmt.					
2		Misc. like cost of implements				15680	
		TOTAL:				1800000	

1800000

2070000 (15% Escalation charges added)for 2017-18

2380500 (15% Escalation charges added)for 2018-19


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1739

ESTIMATE FOR CONSTRUCTION OF CHECK DAMS IN C.A. PLANTATION AREAS

Sl. No.		Nature of work	Quantity	Rate	Unit	Amount	Remarks
1		Construction of Check dams	1	1000000	P. No	1000000	
			TOTAL:			1000000	

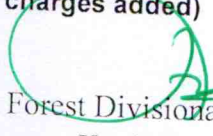
1000000

1150000 As per SSR 2016-17 (15% Escalation charges added)

1322500 As per SSR 2017-18 (15% Escalation charges added)

1520875 As per SSR 2018-19 (15% Escalation charges added)

1322500


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ESTIMATE FOR FORMATION OF PERCOLATION TANKS IN C.A. PLANTATION AREAS

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Construction of Percolation tanks					
	a) Major PTs	1	500000	P. No	500000	
	b) Medium PTs	2	100000	P. No	200000	
	c) Mini PTs	10	75000	P. No	750000	
	TOTAL:				1450000	

1450000

1667500 As per SSR 2016-17 (15% Escalation charges added)

1917625 As per SSR 2017-18 (15% Escalation charges added)

2205269 As per SSR 2018-19 (15% Escalation charges added)

1917625

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1743

UNIT COST ERRECTION CHAIN LINK MESH FENCE AROUND THE C.A. PLANTATION AREA

Sl. No.	FSR Item No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1		Errection chainlink mesh fence around the CA area	5248	1000	Per Rmt.	5248000	
			TOTAL:			5248000	

5248000 (15% Escalation charges added)for 2016-17


6035200 (15% Escalation charges added)for 2017-18


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1745

Development and improvement and extention of Nursery infrastructure for CA scheme

Sl. No	Range	Location of nursery	Item of work	Amount required
1	Kaghaznagar	Penckalipet	Solar system Borewell & Motor	8.000
			Borewell & Motor	2.000
			Over head tanks 4 Nos.	1.500
			Central water system	4.500
			Seed storage & watchman shed	4.000
			Chain link mesh	4.000
			Sprinkler system	3.000
			Drip irrigation system	3.000
			Kerbing the primary beds all around with Cement Bricks (in permanent nurseries only) 50 Nos @ 1500/-	0.750
				30.750


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The CA area proposed to be raised under various models as per the site conditions and Requirement of seedlings for CA scheme

1747

Sl. No	Range	CA land village area	Area proposed in Ha	Model wise area to be afforested		
				L I (3m x 2m)	ANR	Total
1	Penkalipet	Kammargaon	60.1099	40	20.1099	60.1099
			60.1099	40	20.1099	60.1099
Requirement of seedlings for the above area for CA scheme						
Sl. No	Range	CA land village area	Area proposed in Ha	L I (3m x 2m) (2000 Per Ha)	ANR (@ 480)	Total
1	Penkalipet	Raising year	60.1099	80000	9653	89653
			60.1099	80000	9653	89653
		Inclusive 10 %		88000	10618	98618
1	Penkalipet	Replancement for 1st year	60.1099	16640	2011	18651
			60.1099	16640	2011	18651
		Inclusive 10 %		18304	2212	20516
		Grand Total		106304	12830	119134

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