

**COMPREHENSIVE SCHEME FOR COMPENSATORY AFFORESTATION OF
NALGNAGARKURNOOL DIST – FOR DIVERSION OF FOREST LAND IN
KOLLAPUR AREA FOR CONSTRUCTION OF LIFT-I PUMP HOUSE (PACKAGE-I)
FORMATION OF ANJANAGIRI RESERVOIR (PACKAGE-II) AND TUNNEL IN
BETWEEN ANJANAGIRI RESERVOIR AND VEERANJANEYA RESERVOIR
(PACKAGE-IV) IN ACHAMPET DIVISION OF NAGARKURNOOL DISTRICT OF
TELANGANA STATE.**

1) Introduction of the Scheme:-

The Telangana State the Palamuru Ranga Reddy Lift Irrigation scheme proposed has submitted for diversion of 205.4811 Ha of Forest land of Nagarkurnool District. Constriction of Lift-I Pump House (Package-I) Formation of Anjanagiri Reservoir (Package-II) And Tunnel In Between Anjanagiri Reservoir and Veeranjaneya Reservoir (Package-IV) In Achampet Division of Nagarkurnool District of Telangana State

As per the directions of the District Collector, Nagarkurnool vide letter No. E2/288/2017, dt.13.04.2017 the non-forest land to an extent of 237.6738 Ha. was identified in Achampet, Balmoor and Uppununthala Mandals of Nagarkurnool district. The village wise, survey number wise details are as follows.

Sl. No.	Mandal	Village	Extent of land Handed over for CA In Ha	Sy. No.
1	Achampet	Inole	123.6027	171
2	Balmoor	Gattuthuman	42.46706	307/1
3	Uppununthala	Penimilla tanda	52.62249	90
4	Uppununthala	Penimilla	18.9815	88
		TOTAL:	237.6738	

The area of **237.6738 Ha** of Non-forest land has to be taken over by the Forest Range Officer of Achampet from the revenue authorities.

2) Suitability of the Area:-

Non-forest land of **237.6738 Ha** is mainly hilly with gentle slopes having boulders is available which is suitable for planting and SMC works to be taken up duly adopting Mini Percolation Tanks / Check dams/ Rock fill dams, CCT, Staggered trenches, planting on trench mounds with Gachakaya and Misc., species and also erection of chain link fence along the periphery of the CA area to protect the area.

3) Areas identified for Compensatory Afforestation and species.

Accordingly, **237.6738 Ha.** is identified in 4 patches in different places of Compensatory Afforestation land received from the Revenue Authorities.

Keeping the suitability and management point in view, it is proposed to raise miscellaneous species like Ficus & Holoptelea integrifolia through Barren Hill Afforestation in **237.6738 Ha** with an Espacement of 5m x 5m (Misc.,) and Gap planting and seed broad cost respectively.

Sl. No.	Village	Extent of land Handed over for CA In Ha	Proposed planting area	Seed broad costing
1	Inole	123.60270	80.0000	43.60270
2	Gattuthuman	42.46706	35.0000	7.46706
3	Penimilla tanda	52.62249	40.0000	12.62249
4	Penimilla	18.98150	18.9815	0.00
	TOTAL:	237.6738	173.9815	63.6923

4) Planting Technique:-

The plantation under this scheme is proposed to be raised by adopting Barren Hill Afforestation – Advance works like clearance of planting points with digging of 1 meter trench cum pit and applying imported soil with vermi-compost for Miscellaneous species plantations will be taken up under Barren Hill Afforestation method.

Basal dressing with super phosphate will be done to boost up the root system, two weeding and two soil workings are provided. The plantation will be provided with a watcher up to 8th year maintenance of plantations and peripheral chain link fence will be taken up before the planting activity. The entire area of C.A will be planted within two years ie., 2018-19 & 2019-20 and maint., (7) years.

5) Scheme Implementation Agency:-

The Forest Divisional Officer, Achampet Wildlife Management Division will be the project implementation and monitoring agency and works will be taken up through concerned Forest Range Officers.

Raising of successful C.A. Plantation requires frequent inspections and close monitoring by the Forest Range Officers and Senior Officers.

Raising of CA plantations, requires additional man power. Hence, it is proposed to hire a service of Technical Assistants & Computer operators for (3) years. Accordingly, provisions are made in the scheme.

6) Monitoring Mechanism: -

The Forest Divisional Officer, Achampet Wildlife Management Division, District Forest Officer, Nagarkurnool and Addl. Prl. CCF & Chief Conservator of Forests, Field Director/ Tiger Reserve Project, Achampet will be closely monitoring the implementation of C.A. scheme by regular inspection and ensuring maintenance of connected records like plantation journals, Cash books, work register, Measurement books & Asset Register etc., Monthly Progress of planting and maintenance along with expenditure will be submitted to the Prl. Chief Conservator of Forests, T.S. Hyderabad. Other Senior officers of Forest Department of Telangana and Chief Conservator of Forests (Central), Chennai will also be monitoring the implementation of C.A. scheme.

7) Period of the scheme: -

Period of the scheme is for **(10) years** which includes 1st year of Advance works and 2nd year and 3rd year of raising of plantations and (7) years of maintenance commencing from 2018-19 to 2025-26.

8) Cost Structure: -

The cost of the scheme is worked out adopting present F.S.R of 2016-17 and wage structure of Rs. 305.00 per day (as approved by the District Collector, Nagarkurnool). The total year wise cost structure of the project to an extent of **237.6738 Ha.**, is shown in Annexure – I. The details of requirement of funds and year wise action plan are shown in Annexure-II. Unit costs of different planting techniques are shown in Annexure – III to V. The Abstract of the scheme is as follows:

DETAILED ABSTARCT OF CA SCHEME

Sl .No	Item of work	Unit	(Rs. in Lakhs)	
			Phy	Amount
1	<u>Raising of Nursery & Plantation during 2017-18:</u>			
	a) Primary beds	Beds	100	0.920
	b) 4" x 7" Bag Plants	Lakhs	100000	2.209
2	Maintenance of 4" x 7" Plants during 2017-18	Lakhs	100000	1.742
3	Conversion from 4"x7" to 6"x12" Plants during 2018	Lakhs	100000	10.664
4	Advance operations (Area in Ha.) during 2018	Ha	168	42.612
5	Raising of plantation (Area in Ha.) during 2018	Ha	168	64.705
6	1st Year maintenance of plantation (Area in Ha.) 2019	Ha	168	34.541
7	2nd Year maintenance of plantation (Area in Ha.) 2020	Ha	168	39.722
8	3rd Year maintenance of plantation (Area in Ha.) 2021	Ha	168	45.681
9	4th Year maintenance of plantation (Area in Ha.) 2022	Ha	168	51.181
10	5th Year maintenance of plantation (Area in Ha.) 2023	Ha	168	60.413
11	6th Year maintenance of plantation (Area in Ha.) 2024	Ha	168	69.475
12	7th Year maintenance of plantation (Area in Ha.) 2025	Ha	168	79.896

13	SMC works			
	a) Formation of Percolation tanks	Nos	6	6.000
	b) Rock fill Dams	Cum	1300	6.656
	c) Construction of Check Dams	Nos	2	10.000
	e) Digging of Staggered contour trench's	Cum	3700	8.971
14	Protection of CA land			
	d) Desilting of existing trench	Cum	3000	31.995
	e) Raising of Gachakaya & Misc., plantations on trench mound around the CA area @ 4500 / KM	Km	11	2.451
	f) Chain link fencing around the CA area	Rmt	11300	189.840
	g) Construction of RCC boundary pillar around the CA Area	Nos	440	33.000
	Sub Total:			792.673
15	Seed Broad Coasting	Kgs	3100	7.750
16	Blasting of Unworkable area	Cum	40000	28.000
17	Filling of Imported soil in unworkable area	Cum	20000	87.800
	50% of the above blasting area			0.000
	Sub Total:			123.550
18	Development and improvement and extension of Nursery infrastructure for CA scheme	LS	LS	19.000
19	Drilling of Bore Well along with Solar Pump at plantation site	LS	LS	28.000
20	Construction of Camp Office at Kollapur	Nos	1	25.000
21	Construction of Watcher sheds	Nos	1	10.500
22	Construction of Gate for sheds	Nos	1	3.000
23	Vehicles for monitoring of CA works by DFOs / FROs	Nos	LS	18.000
	Sub Total:			103.500
24	Trainings / facilitation charges		LS	9.000
25	Publicity and awareness		LS	9.000
	Sub Total:			18.000
26	Admin Cost for @ 10% on plantation & SMC works (for purchase of Computers, stationery, Remuneration of DEOs, Technical Assistants and other contingencies)		LS	91.622
	CA AREA GRAND TOTAL :			1129.345

Catchment Area Treatment

Sl. No	Item of work	Unit	Rs in Lakhs	
			CAT Plan	
			Phy	Amount
1	Digging of CPT around the diverted area	Km	20	32.640
2	Rock fill Dams	Cum	5000	25.600
3	Digging of Staggered contour trench's	Cum	2000	4.849
4	Creation of Fire lines	km	200	8.600
5	Bund Planting	Km	20	3.340
6	Raising of rare and indigenous medicinal plants			5.000
	CAT SUB TOTAL:			80.029

7	Firefighting equipment	Nos	10	4.850
8	Socio-economic component - Gas connections other facilities like community Hall, provision of one Bore well, Cattle Pond, Solar lanterns, Solar Street lights etc., the project effect families	LS	LS	8.000
9	Nursery Infrastructure	LS	-	15.000
10	Vehicle Hiring	Nos	1	3.500
11	Protection shed	Nos	1	4.000
	SUB TOTAL:			31.350
	Admin Cost for @ 10% on plantation & SMC works (for purchase of Computers, stationery, Remuneration of DEOs, Technical Assistants and other contingencies)			8.003
	CAT AREA TOTAL:			119.382
	CA AREA TOTAL:			1129.345
	GRAND TOTAL:			1248.727


FOREST DIVISIONAL OFFICER
ACHAMPET

Addl. Prl. Chief Conservator of Forests/FD
 ATR Circle, Achampet.

ABSTRACT PROPOSED WORKS IN C.A . AREAS FROM 2018 -19 TO 2025-26

Sl. N	Item of work	Unit	Inole (122.16 Ha)			Penimilla Thanda			Gattuthummen (41.96 Ha)			Penimilla (18.76 Ha)			Total	
			Phy	Rate	Amount	Phy	Rate	Amount	Phy	Rate	Amount	Phy	Rate	Amount	Phy	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Raising of Nursery & Plantation during 2017-18:															
	a) Primary beds	Beds	100	920	92000			-			-			-	100	92000
	b) 4" x 7" Bag Plants	Lakhs	100000	2.2091	220907			-			-			-	100000	220907
2	Maintenance of 4" x 7" Plants during 2017-18	Lakhs	100000	1.7418	174176			-			-			-	100000	174176
3	Conversion from 4"x7" to 6"x12" Plants during 2018	Lakhs	100000	10.6639	1066386			-			-			-	100000	1066386
4	Advance operations (Area in Ha.) during 2018															
	ANR-Gap Planting method	Ha	80	25364	2029147	40	25364	1014574	30	25364	760930	18	25364	456558	168	4261210
5	Raising of plantation (Area in Ha.) during 2018															
	ANR-Gap Planting method	Ha	80	38515	3081172	40	38515	1540586	30	38515	1155440	18	38515	693264	168	6470461
6	1st Year maintenance of plantation (Area in Ha.) 2019															
	ANR-TCP method	Ha	80	20560	1644818	40	20560	822409	30	20560	616807	18	20560	370084	168	3454117
7	2nd Year maintenance of plantation (Area in Ha.) 2020															
	ANR-TCP method	Ha	80	23644	1891540	40	23644	945770	30	23644	709328	18	23644	425597	168	3972234
8	3rd Year maintenance of plantation (Area in Ha.) 2021															
	ANR-TCP method	Ha	80	27191	2175271	40	27191	1087636	30	27191	815727	18	27191	489436	168	4568070
9	4th Year maintenance of plantation (Area in Ha.) 2022															
	ANR-TCP method	Ha	80	30465	2437199	40	30465	1218599	30	30465	913949	18	30465	548370	168	5118117
10	5th Year maintenance of plantation (Area in Ha.) 2023															
	ANR-TCP method	Ha	80	35960	2876796	40	35960	1438398	30	35960	1078799	18	35960	647279	168	6041272
11	6th Year maintenance of plantation (Area in Ha.) 2024															
	ANR-TCP method	Ha	80	41354	3308316	40	41354	1654158	30	41354	1240618	18	41354	744371	168	6947463
12	7th Year maintenance of plantation (Area in Ha.) 2025															
	ANR-TCP method	Ha	80	47557	3804563	40	47557	1902282	30	47557	1426711	18	47557	856027	168	7989582
13	SMC works															
	a) Formation of Percolation tanks	Nos	2	100000	200000	2	100000	200000	1	100000	100000	1	100000	100000	6	600000
	b) Rock fill Dams	Cum	500	512	256000	200	512	102400	500	512	256000	100	512	51200	1300	685600
	c) Construction of Check Dams	Nos	1	500000	500000				1	500000	500000				2	1000000
	e) Digging of Staggered contour trench's	Cum	2000	242.46	484920	1000	242.46	242460	500	242.46	121230	200	242.46	48492	3700	897102

Sl. N	Item of work	Unit	Inole (122.16 Ha)			Penimilla Thanda			Gattuthummen (41.96 Ha)			Penimilla (18.76 Ha)			Total	
			Phy	Rate	Amount	Phy	Rate	Amount	Phy	Rate	Amount	Phy	Rate	Amount	Phy	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
14	Protection of CA land															
	d) Desilting of existing trench	Cum	9500	46.64	1550780	0	0.00	0	5050	46.64	824362	5050	46.64	824362	3000	3199504
	e) Raising of Gachakaya & Misc., plantations on trench mound around the CA area @ 4500 / KM	Km	5.8	21689.00	125796	0	0.00	0	2.9	21689.00	62898	2.6	21689.00	56391	11	245086
	f) Chain link fencing around the CA area	Rmt	5800	1680	9744000	0	0	0	2900	1680	4872000	2600	1680	4368000	11300	18984000
	g) Construction of RCC boundary pillar around the CA Area	Nos	175	7500	1312500	100	7500	750000	100	7500	750000	65	7500	487500	440	3300000
	Sub Total :				39976287			12919271			16204798			11166930		79267287
15	Seed Broad Coasting	Kgs	1000	250	250000	800	250	200000	800	250	200000	500	250	125000	3100	775000
16	Blasting of Unworkable area	Cum	20000	70	1400000	10000	70	700000	5000	70	350000	5000	70	350000	40000	2800000
17	Filling of Imported soil in unworkable area	Cum	10000	439	4390000	5000	439	2195000	2500	439	1097500	2500	439	1097500	20000	8780000
	50% of the above blasting area				6040000			3095000			1647500			1572500		12355000
18	Development and improvement and extension of Nursery infrastructure for CA scheme	LS	LS		1900000										LS	1900000
19	Drilling of Bore Well along with Solar Pump at plantation site	LS	1.00	700000	700000	1.00	700000	700000	1.00	700000	700000	1.00	700000	700000	LS	2800000
20	Construction of Camp Office at Kollapur	Nos	1		2500000										1	2500000
21	Construction of Watcher sheds	Nos	1	350000	350000	1	350000	350000	1	350000	350000				1	1050000
22	Construction of Gate for sheds	Nos	1	100000	100000	1	100000	100000	1	100000	100000				1	300000
23	Vehicles for monitoring of CA works by DFOs / FROs	Nos	LS	450000	450000	LS	450000	450000	LS	450000	450000	LS	450000	450000		1800000
	Sub Total :				6000000			1600000			1600000			1150000		10350000
24	Trainings / facilitation charges		LS		500000	LS		200000	LS		200000	LS			LS	900000
25	Publicity and awareness		LS		500000	LS		200000	LS		200000	LS			LS	900000
	Sub Total :				1000000			400000			400000			0		1800000
26	Admin Cost for @ 10% on plantation & SMC works (for purchase of Computers, stationery, Renumeration of DEOs, Technical Assistants and other contingencies)				4501629			1601427			1785230			1273943		9162229
CA AREA GRAND TOTAL :					56517916			19615698			21637528			15163373		112934516

Forest Divisional Officer
Achampet

Catchment Area Treatment

Sl. N	Item of work	Unit	CAT Plan		
			Phy	Rate	Amount
1	2	3	4	5	6
1	Digging of CPT around the diverted area	Km	20	163200	3264000
2	Rock fill Dams	Cum	5000	512	2560000
3	Digging of Staggered contour trench's	Cum	2000	242.46	484920
4	Creation of Fire lines	km	200	4,300.00	860000
5	Bund Planting	Km	20	16700.00	334000
6	Raising of rare and indigenous medicinal plants				500000
	CAT SUB TOTAL :				8002920
7	Fire fighting equipment	Nos	10	48,500	485000
8	Socio-economic component - Gas connections other facilities like community Hall, provision of one Bore well, Cattle Pond, Solar lanterns, Solar Street lights etc., the project effect families	LS	LS		800000
9	Nursery Infrastructure	LS	-	-	1500000
10	Vehicle Hiring	Nos	1	350000	350000
11	Protection shed	Nos	1	400000	400000
	SUB TOTAL :				3135000
	Admin Cost for @ 10% on plantation & SMC works (for purchase of Computers, stationery, Renumeration of DEOs, Technical Assistants and other contingencies)				800292
	CAT AREA GRAND TOTAL :				11938212
	GRAND TOTAL :				11938212


FOREST DIVISIONAL OFFICER
ACHAMPET

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

Sl. No.	FSR item No	Nature of work	Qty	Rate	Amount	Remarks
1	1.1.1	Preparation of New site - by clearing misceleneous unvaible Jungle growth, uprootal of stumps and removal of surface stones, pebbles etc.,	1 Bed	4.30	4.30	
2	1.1.3	Digging soil to a depth of 30 cm (as per CSSR 2011-12)	1 Bed	28.11	28.11	
3	1.1.4	Cost of sandy soil 50% of dugged quantity and transportation taken from private lands, with 5 kms lead loading and unloading charges by mannual means (Sandy soil and FYM. in 5:1 proprtion) 0.125 cum per bed.	1 Bed	242.00	242.00	
4	1.1.5	Cost and transport of Farm yard manure (Sandy soil and FYM. in 5:1 proprtion) 0.025 cum per bed.	1 Bed	As per actuals	200.00	
5	1.1.6	Preparation of soil mixture of red earth, sand and farm yard manure in 5:1 proportion and formation of bed by refilling the excavated portion of the bed and filling of bed.	1 Bed	8.90	8.90	
6	1.1.7	Cost of seed	0.5 Kg	As per actuals	50	
7	1.1.8	Sowing of seed and covering the bed with hay including cost and conveyance to a thickness of 2.5 cm.	1 Bed	10.10	10.10	
8	1.1.9	Watering the primary nursery beds with rose water cans for a maximum period of 2 months.	Per Bed /Month	11.40	22.80	
9	1.1.10	Weeding the primary beds. Maximum of 2 times	Per Bed /Month	1.70	3.40	
10	1.1.11	Kerbing the beds all around with Cement Bricks	1 Bed	As per CSSR	30.00	
11	1.4.11	Cost of insecticides/Fertilizers		As per actuals	50.00	
12	1.4.21	Contingencies/ Cost of Pipes/ Nursery Board/ Nursery implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine INCL TOOLS AND EQUIPMENT (Bills to be verified and certified by the ACF/DEO) etc.			150.00	
					799.61	

or **800** per bed

UNIT RATE :

800.00 As per FSR 2016-17

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

Forest Divisional Officer
Achampet

Model Estimate for Raising of 2600 Nos (1 Bed) 4" x 7" Bag Nursery during 2017-18 (Unit Cost per Bed)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit		Amount
1	2	3	4	5	6	7	8
1	Site preparation for old site - Clearing of growth, weeds, grass etc.,	01.03.02	1	11.56	1	bed	11.56
2	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.	01.03.03	4.85	160.00	1	Kg	776.00
3	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. 10 cm x 17.5 cm (4" x 7") = 0.56 cum vol. for 1000 bags	01.03.05	2860	174.06	1000	bags	497.81
4	b) For every extra km beyond 5 km upto 25 km 10 cm x 17.5 cm (4" x 7") = 0.56 cum vol. for 1000 bags	01.03.07	2860	4.54	1000 / Km		194.77
5	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. i) 10 cm x 17.5 cm (4" x 7") size bags: 2600 bags / bed	01.03.09	2860	509.22	1000	Nos	1456.37
6	Alignment of beds including alignment of inspection paths etc.,	01.03.11	1	6.59		bed	6.59
7	Sowing/dibbling of pretreated seeds directly into bags including cost of treatment	01.03.13	0	73.01		1000	0.00
8	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	01.03.14	1	238.19		bed/month	1190.95
9	Weeding the plants from July to October (3 times)	01.03.16	1	43.74		bed/weeding	656.10
10	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	1	204.28		Bed/shifting	204.28
11	Contingencies in Raising year Cost of Pipes/ Nursery Board/ Nursery implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine.	01.03.51			As per actual, subject to max. of 5 % of		0.00
12	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1				0.00
Unit per per Bed & 2600 seedling for 2016-17							4994

Per bed **4994**
Per Plant **1.92**
2017-18 2.209
2018-19 2.540

Forest Divisional Officer
Achampet

Estimate for Maintenance of 2600 plants (4" X 7") Bag Nursery during 2017-18 (Unit Cost per Bed)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit	Amount
1	2	3	4	5	6	7
1	Watering the plants for 10 m X 1 m size bed (2600 Nos 4"X7" bags) April to August (5 Months)	01.04.01	1	239.19	1	Bed/ wat 1196
2	Weeding Once during Maintenance year	01.04.03	1	43.74	1	bed/ weeding 43.74
3	Shifting and grading and re-arranging in beds for 10 m X 1 m size bed maximum two shifts 2600 4"X7" bags) Apr-August (One in April and another in June)	01.04.04	1	215.68	1	Bed/ shift 431.36
4	Preparation of Cowdung slurry	01.04.07				per Bed 15.00
5	Application of cowdung slurry -Only once between April to June	01.04.08	1	179.17		1000 179.17
6	Application of cow dung slurry at the rate of 100ml to 250 ml. per plant depending upon the size of the plant monthly twice maximum of 3 times. (two times in maintenance)	01.04.05	By Nursery Watcher			
7	Weeding in the Space between the beds , inspection path and surroundings of Nursery	01.04.09	1	24.08		per Bed 24.08
8	Contingencies/ Plantation Board/ implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine.	01.04.10	As per actuals (Subject to maximum of 5% of the estimate cost during maintenance year.)			
9	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1			6.00
	Total for 1 bed (1100 Nos) Bags 6"x 12" as 2016-17 FSR					1989.75
	10% escalation					198.98
	Total for 1100 Nos (1 Bed) 6" x 12" bag plants					2188.73
						218.8725
						2407.60

Per Bed Unit Cost	2407.60
Per Seedling	0.926

Maintenance of Bag Nursery From September Onwards till Disposal

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit	Amount
1	2	3	4	5	6	7
1	Watering the plants for 10 m X 1 m size bed (1100 Nos 4"X7" bags) September to March (7 Months)	01.05.01	1	144.50	1	Bed/ wat 1012
2	Shifting grading and re-arranging in beds for 10 m x 1 m size bed (2 shiftings)	01.05.02	1	186.84	1	Per bed/shifting 374
3	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1			6.00
						1391
						139.118
						1530

Unit cost per Bed	3938
each plant	1.515
2017-18	1.741761


 Forest Divisional Officer
 Achampet

Model Estimate for Conversion from 4"x7" to 6"x12" of 2600 Nos (Nov to March) (1 Bed) Bag Nursery during 2017-18 (Unit Cost per Bed)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit		Amount
1	2	3	4	5	6	7	8
1	Cost of Polythene bags 400 guage 6"x12"	as per Rate	22.60	160.00	1.00	per	3616.00
	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.						
1	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	01.03.26	1100	494.29	1000	per	543.72
2	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	01.03.31	1100	12.88	1000	per Km	354.20
3	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) iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	01.03.36	1100	870.78	1000	per	957.86
4	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 1st weeding - December	01.03.44	1100	43.75	1	per bed / per weeding	92.55
5	Shifting, Grading and rearranging in secondary beds - One Grading in February	01.03.46	1	204.28	1	per bed / per weeding	204.28
6	Watering the plants manually twice a day (from Novemebr - March) with rose spray or finely perforated nozzle attached to a hose pipe.						
7	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	01.03.47	1	238.19	1	per bed / per weeding	238.19
8	Contingencies Cost of Pipes/ Nursery Board/ Nursery implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine.	01.03.51				As per actual, subject to max. of 5 % of	493.00
	Unit per per Bed & 1100 seedling for 2016-17						6500

Per bed **6500**
Per Plant **5.91**


FOREST DIVISIONAL OFFICER
ACHAMPET

Maintenance of Conversion seedlings 4"x7" TO 6" x 12' (1100) from April to August)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit	Amount	
1	2	3	4	5	6	7	
	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" X9" bags ; 1100 Nos. of 6"X12" bags; 800 Nos. of 8"X12" bags; 400 Nos. of 10"x16" baas per bed)</i>						
1	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	01.04.01	1	238.19	1	per bed / per weeding	1190.95
2	Weeding <i>once</i> during maintenance year	01.04.03	1	43.74	1	bed/weeding	43.74
3	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)	01.04.04	1	204.28	1	Bed/shifting	408.56
4	Cost of foliar nutritient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from April - August)	01.04.06	As per actuals with a maximum limit of Rs. 2000/ per 1 lakh polybag seedlings				300.00
5	Preparation of cowdung slurry -	01.04.07	As per actual subject to maximum of Rs. 1500/-			per 100 beds	1500.00
6	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>	01.04.08	1100	179.17	1000	per	197.09
7	Weeding in the space between the beds , inspection path and sorroundings of Nursery	01.04.09	1	24.08	1	per bed	24.08
							36.00
							3700

Per bed **3700**
Per Plant **3.36** **9.27**
2018 **10.664**


FOREST DIVISIONAL OFFICER
ACHAMPET

Model Estimate for Raising of 1100 Nos (1 Bed) 6" x 12" Bag Nursery during 2017-18 (Unit Cost per Bed)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit		Amount
1	2	3	4	5	6	7	8
1	Site preparation for New site - Clearing of growth, weeds, grass etc.,	01.03.02	1	11.56	1	bed	11.56
2	Cost of Polybags (12.5 cm x 22.5 cm (6" x 12") size bags (400 g)	01.03.04	10.5	160.00	1	Kg	1680.00
3	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.	01.03.24	1210	494.29	1000	bags	598.09
4	For every extra km beyond 5 km upto 25 km	01.03.29	1210	12.88	1000 / Km		233.77
5	Preparation of potting mixture Red Soil and Clayey Soil in 2:1 ratio by powdering of various ingredients, sieving and mixing them in the prescribed proportion, Opening the bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds. 12.5 cm X 22.5 cm (6" X 12") size bags - 1100 bags/bed	01.03.34	1210	870.80	1000	Nos	1053.67
6	Alignment of beds including alignment of inspection paths etc.,	01.03.11	1	6.59		bed	6.59
7	Sowing/dibbling of pretreated seeds directly into bags including cost of treatment	01.03.13	1210	73.01		1000	88.34
8	Manually with rose spray or finely perforated nozzle attached to a hose pipe. (Nov to March) 5 Months	01.03.47	1	238.19		bed/mont h	1190.95
9	Weeding the plants for Nov to March (2 times)	01.03.44	1	43.74		bed/weeding	437.40
10	Shifting and grading and re-arranging in beds for 10 m X 1 m size bed (1100 Nos. 6"X 12" bags) one grading in Sept.	01.03.46	1	204.28		Bed/shifting	204.28
11	Contingencies in Raising year Cost of Pipes/ Nursery Board/ Nursery implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine.	01.03.51				As per actual, subject to max. of 5 % of	495.00
12	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1				0.00
	Unit per per Bed & 1100 seedling for 2016-17						6000

Per bed **6000**
Per Plant **5.45**


Forest Divisional Officer
Achampet

Estimate for Maintenance of (6X12) Bag Nursery during 2017-18 (Unit Cost per Bed)

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit	Amount
1	2	3	4	5	6	7
1	Watering the plants for 10 m X 1 m size bed (1100 Nos 6"X12" bags) April to August (5 Months)	01.04.01	1	239.19	1	Bed/ wat 1196
2	Weeding Once during Maintenance year	01.04.03	1	43.74	1	bed/ weeding 43.74
3	Shifting and grading and re-arranging in beds for 10 m X 1 m size bed maximum two shifts (1100 6"X12" bags) Apr-August (One in April and another in June)	01.04.04	1	215.68	1	Bed/ shift 431.36
4	Preparation of Cowdung slurry	01.04.07				per Bed 15.00
5	Application of cowdung slurry -Only once between April to June	01.04.08	1	179.17		1000 179.17
6	Application of cow dung slurry at the rate of 100ml to 250 ml. per plant depending upon the size of the plant monthly twice maximum of 3 times. (two times in maintenance)	01.04.05	By Nursery Watcher			
7	Weeding in the Space between the beds , inspection path and surroundings of Nursery	01.04.09	1	24.08		per Bed 24.08
8	Contingencies/ Plantation Board/ implements/ Electricity Bill/ Running and Maintenance Charges of Oil Engine.	01.04.10	As per actuals (Subject to maximum of 5% of the estimate cost during maintenance year.)			
9	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1			6.00
	Total for 1 bed (1100 Nos) Bags 6"x 12" as 2016-17 FSR					1989.75
	10% escalation					198.98
	Total for 1100 Nos (1 Bed) 6" x 12" bag plants					2188.73
						218.8725
						2407.60
	Per Bed Unit Cost					2407.6
	Per Seedling					2.19

Maintenance of Bag Nursery From September Onwards till Disposal

Sl. No	Description of Work	FSR Item No	Qty	Rate	Unit	Amount
1	2	3	4	5	6	7
1	Watering the plants for 10 m X 1 m size bed (1100 Nos 6"X12" bags) September to March (7 Months)	01.05.01	1	144.50	1	Bed/ wat 1012
2	Shifting grading and re-arranging in beds for 10 m x 1 m size bed (2 shiftings)	01.05.02	1	186.84	1	Per bed/shifting 374
3	Cost of Protection Once watcher is allowed upto 1 lakh nursery	01.05.04	1			6.00
						1391
						139.118
						1530

Unit cost per Bed **3938**


 Forest Divisional Officer
 Achampet

UNIT COST FOR ADVANCE OPERATIONS OF 1 HA BHA GAP PLANTATION for the year 2017-18
(Zone -III) 400 plants per Ha

A) Advance Operations

(Amount in Rs.)

Sl. No.	FSR No.	Description	Quantity	Rate	Per	Amount (without agency)
1	2	3	4	5	6	7
		Advance works				
1	02.19.01	Identification and taking possession of site free of encumbrances from Revenue Officials in Novemebr. Survey with hand-held GPS (staff to carry out) and demarcation - one manday is allowed for assistance. The GPS-surveyed sketch with exact effective area statement will be uploaded in MIS platform latest by end of January.	1 Plantation	311.04	1	311.04
2	02.19.03	Alignment and Staking including laying of base line in 3x3 m espacement (5 x5 no. per ha of effective area suitable for planting)	1	74.20	100 Nos	0.74
3	02.19.04	Cost of preparation of stakes (0.45 m length) and transportation to site	1	47.30	100 Nos	0.47
		Digging of Pits - Manual (As per RSSR): All efforts shall be made to complete pitting works before March-end . Under exceptional circumstances (if the target of plantation is given in the month of March-April), the pitting can be done during June and July . <i>But any pitting done during June-July, plants can only be planted after the pits are verified in the field regarding prescribed dimensions by inspections of FROs and DFOs to avoid simultaneous pitting and planting which may result in higher percentage of casualties.</i>				
		Between January - March				
		a) Hard Soil				
4	02.19.12	ii) 45 cm ³ pits (June to July)	400	16.97	per pit	6788.00
		Digging of Staggered Contour Trenches (SCTs) on the lower side of the planting point (Manual) - Size: 1 m Length, 0.45 m top-width, 0.30 m bottom-width and 0.45 m depth; earthwork volume per trench: 0.169 cum / SCT ; thus it comes to Total 1111 / ha in the effective area of planting pits. If they are made with machine, the works can be done by calling for tender. However, if they are intended to be done through machine, it has to be informed in advance. All the SCTs shall be completed before January (As per RSSR)				
5	02.19.16	ii) Hard soils like gravel and morum (0.168 cmt x 400) =67.2 cmt	67.2	218.18	per Cmt	14661.70
		Contingencies, journals, implements etc.,				294.00
		Unit Cost per Ha				22056

As per FSR 2016-17

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

22056

25364


Forest Divisional Officer
Achampet

UNIT COST FOR RAISING OF 1 HA BHA GAP PLANTATION for the year 2017-18
(Zone -III) 400 plants per Ha

Raising of Plantation :

(Amount in Rs.)

Sl. No.	FSR No.	Description	Quantity	Rate	Per	Amount (without agency)
1	2	3	4	5	6	7
		Raising Works July/2017				
		<i>From nursery to plantation site - upto 5 Km lead</i>				
5	02.19.17	ii) 15 X 30 cm (6"X12") bag plants	400	96.79	100 nos	387.16
		<i>From nursery to plantation site - beyond 5 Km lead</i>				
		<i>i) For every extra km beyond 5 km upto 25 km</i>				
6	02.19.19	15 X 30 cm (6"X12") bag plants	400	3.38	100 nos / km	270.40
7	02.19.23	15 X 30 cm (6"X12") bag plants	400	95.31	100 Nos	381.24
8	02.20.	RAISING YEAR OF PLANTATION				
		PLANTING: Seedlings of local hillock species will have to be chosen for planting. The minimum height of the planting stock to be planted is 0.75 m height (excluding the height of the bag) Species to be preferred are Ficus (except <i>Ficus racemosa</i>), Yepi (<i>Hardwickia binata</i>), Nemalinar (<i>Holoptelea integrifolia</i>), Pala kodisha (<i>Wrightia tinctoria</i>) Nirudi (<i>Dolichandrone crista</i>), Simarouba (at the base of hillock), Poniki (<i>Gyrocarpus jacquini</i>), Narlingi (<i>Albizia amara</i>), Sandra (<i>Acacia chundra</i>) etc.				
9	02.20.01	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 (5ml Chloropyriphos in 1 lit water) either at nursery site before transport or at plantation site before planting	400	32.62	100 Nos	130.48
10	02.20.02	Cost of SSP, Chloridine dust (50 gm) or Chloropyriphos	400	As per actual		500.00
11	As per CSSR	Cost & purchase of Red earth / Sandy/ Black cotton soil/ conveyance charges (0.45x0.45x0.45 =0.091 cum x 400 =36.4 cum @ Rs.427.35/- cum = per Rs.7788/ 200 nos	36.4	427.35	per cum	15555.54
12	02.16.18	Refilling the pits with dug-up soil, planting, forming saucer with a radius of 0.50 m radius around the plant and provide support to the plants which should go 18" inside pit along with plant at the time of planting.	400	706.43	100 Nos	2825.72
		Planting				
13	02.20.04	ii) 45 cm ³	400	363.37	100 Nos	1453.48
14	02.21.03	Replacement of Casualties: 20% during Raising Year. The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year. (50% of rate of original pitting of raising and 100% during maint. Year. Planting, transportation and internal transportation as prescribed above)	80	8.485	each	678.80
		Application of Fertilizers				
15	02.21.04	Cost of DAP @ 25 gm / planting point	400	As per Actual		500.00
16	02.21.05	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	400	32.62	100 Nos	130.48

		Weeding & Soil Working				
17	02.21.06	a) 1 st circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	400	103.79	100 Nos	830.32
18	02.21.07	b) 2 nd circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	400	103.79	100 Nos	415.16
		c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging plant (to be carried out during Nov - Dec)				
19	02.21.09	i) For Hard gravely soil	400	540.08	100 Nos	2160.32
20	02.21.11	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	400	103.19	100 Nos	412.76
21	02.21.14	Cost of Protection: One Watcher is allowed for 10-30 ha. plantation; One more Watcher for more than 30 ha; and if the area is less than 10 ha, prior approval of Conservator of Forests is required. Identity Photo of Watchers shall be pasted in respective Plantation Journal. Every month payment to be made after satisfaction by Plantation-in-charge that there is no fire and cattle damage. <i>The guiding principle for continuation of the services of a Plantation Watcher is at least 80% survival at the end of raising year.</i>	9	7500	per month per watcher	6750.00
		Contingencies, journals, implements etc.,				109.00
		Unit Cost per Ha				33491.00

As per FSR 2016-17

33491

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

38515

Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2018-19

1st year MAINTENANCE (ANR)

Esp:

5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual.			800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
Weeding & Soil Working								
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
	Unit Cost per Ha							15546

As per FSR 2016-17

15546

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

17878

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

20560

Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2019-20

2nd year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual			800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
Weeding & Soil Working								
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by sciculture upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500.00	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
Unit Cost per Ha								15546

As per FSR 2016-17

15546

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

17878

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

20560

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

23644


Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2020-21

3rd year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual			800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
Weeding & Soil Working								
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500.00	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
Unit Cost per Ha								15546

As per FSR 2016-17

15546

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

17878

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

20560

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

23644

As per FSR 2020-21 (15% Escalation charges added)

27191


Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2021-22

4th year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual			400
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
Weeding & Soil Working								
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500.00	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
Unit Cost per Ha								15146

As per FSR 2016-17

15146

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

17418

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

20031

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

23036

As per FSR 2020-21 (15% Escalation charges added)

26491

As per FSR 2021-22 (15% Escalation charges added)

30465


Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2022-23

5th year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual			800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
Weeding & Soil Working								
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500.00	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
	Unit Cost per Ha							15546

As per FSR 2016-17

15546

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

17878

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

20560

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

23644

As per FSR 2020-21 (15% Escalation charges added)

27191

As per FSR 2021-22 (15% Escalation charges added)

31270

As per FSR 2022-23 (15% Escalation charges added)

35960

Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2023-24

6th year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity	Rate	Per	Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80 Nos	24.02	1 each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400	As per actual		800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400 Nos	63.62	100 Nos	254
Weeding & Soil Working						
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400 Nos	103.79	100 Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400 Nos	103.79	100 Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)					
	For Hard soil	02.22.05	400 Nos	545.08	100 Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400 Nos	103.19	100 Nos	413
8	Cost of Protection for 12 months	02.23.05	12 months	7,500.00	1 month	9000
9	Contingencies, journals, implements etc.,			LS		147
	Unit Cost per Ha					15546

As per FSR 2016-17

15546

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

17878

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

20560

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

23644

As per FSR 2020-21 (15% Escalation charges added)

27191

As per FSR 2021-22 (15% Escalation charges added)

31270

As per FSR 2022-23 (15% Escalation charges added)

35960

As per FSR 2023-24 (15% Escalation charges added)

41354

Forest Divisional Officer
Achampet

UNIT COST FOR MAINTENANCE OF 1 Ha BHA (Gap Planting) PLANTATION 2024-25

7th year MAINTENANCE (ANR)

Esp: 5x5 m

400 Plants/ 1 Ha.

Sl. No	Item of work	FSR No.	Quantity		Rate	Per		Amount (without agency)
1	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 planting shall be completed by 15th of July.	02.22.01	80	Nos	24.02	1	each	1922
2	Cost of DAP @ 25 gm / planting point	02.21.04	400		As per actual			800
3	Application of fertilizer in August (30 days after planting) by making 3 holes of 10 cm depth with crow bar holes at a distance of 10 cm away from plant and putting fertilizers and closing. Ensure that the soil is really wet at the time of DAP application.	02.21.05	400	Nos	63.62	100	Nos	254
	Weeding & Soil Working							
4	a) 1 st Circular weeding to a radius of 0.50 m around the plant after 30 days of planting (i.e. July - Aug)	02.22.02	400	Nos	103.79	100	Nos	415
5	b) 2 nd Circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	02.22.03	400	Nos	103.79	100	Nos	415
6	c) Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging the plant (to be carried out during Nov - Dec)							
	For Hard soil	02.22.05	400	Nos	545.08	100	Nos	2180
7	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	02.23.03	400	Nos	103.19	100	Nos	413
8	Cost of Protection for 12 months	02.23.05	12	months	7,500.00	1	month	9000
9	Contingencies, journals, implements etc.,				LS			147
	Unit Cost per Ha							15546

As per FSR 2016-17

15546

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

17878

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

20560

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

23644

As per FSR 2020-21 (15% Escalation charges added)

27191

As per FSR 2021-22 (15% Escalation charges added)

31270

As per FSR 2022-23 (15% Escalation charges added)

35960

As per FSR 2023-24 (15% Escalation charges added)

41354

As per FSR 2024-25 (15% Escalation charges added)

47557


Forest Divisional Officer
Achampet

**UNIT COST FOR FORMATION OF MEDIUM / MINI PERCOLATION TANKS IN C.A.
PLANTATION AREAS**

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Construction of Medium / Mini Percolation tanks	2	100000	each	200000	
		TOTAL:			200000	


 Forest Divisional Officer
 Achampet

UNIT COST FOR Digging of CPT around the CA area

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Digging of Continous Peripheral Trench around the CA area	1000	46.64	per Cum	163240	
		TOTAL:			163240	


Forest Divisional Officer
Achampet

**UNIT COST FOR Digging of Staggered Contour Trenches (SCTs) on
around the CA area**

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	<p>Staggered trenches, Continuous Contour trenches around the CA area in soft disintegrated rock soils (Category-IV)</p> <p>10 mtr x 0.45 mtrs + 0.30 mtr x 0.45 mtrs = 1.69 cmt</p> <p>As per the GO.Ms.31, PR & RD (RD), Dept., dt.20.04.2016.</p>	2000	242.46	per cmt	484920	
		TOTAL:			484920	


 Forest Divisional Officer
 Achampet

UNIT COST FOR ROCKFILL DAMS IN C.A. PLANTATION AREAS

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Construction of Rockfill Dams with RR stone	1000	512	Cmt	512000	
		TOTAL:			512000	


Divisional Forest Officer
Achampet

Unit cost for Raising of Gachakaya & Misc., plantations on trench mound around the CA area

Sl. No	Item of work	FSR No.	Quantity	Rate	Per		Amount (without agency)
	i) Planting pongamia in 45cm3 pit on the crest of mound at 4 m spacing						
1	Alignment & stacking - 4m apart in one row	2.30.1	250	66.74	100	Nos	167
2	Cost of preparation of stakes (0.45m length) and transportation to site	2.30.2	250	47.30	100	NOs	118
3	Digging 45cm3 pits (50% of original rate) to be done during june	2.1.15	250	7.49	1	pit	1873
4	15x30 cm (6x12") bag plants (upto 5 Kms)	2.2.2	250	96.79	100	Nos	242
5	15x30 cm (6x12") bag plants (upto 25 Kms) $20 \times 3.38 = 67.6$	2.2.5	250	67.6	100	Nos	169
6	Internal transportation to planting points on head load 15x30 cm (6x12) bag plants	2.2.11	250	76.25	100	Nos	191
7	Planting with 4m apart in one road (250 Nos / Km)	2.30.5	250	116.75	100	Nos	292
	ii) Planting 2 rows of Gachakaya / fruitbearing species (seedlings in 2 staggered rows in 2x1 m specement (row to row 1 m and within the row 2 m spacing)						
1	Alignment & stacking in 2 staggered rows	2.30.06	2000	66.74	100	Nos	1335
2	Cost of preparation of stakes (0.45m length) and transportation to site	2.30.7	2000	47.30	100	NOs	946
3	Digging 30 cm2 pits (50% of original rete) to be done during June	2.30.8	2000	1.96	1	pit	3920
4	15x30 cm (6x12) bag plants (upto 5 Km)	2.2.2	2000	96.79	100	Nos	1936
5	15x30 cm (6x12) bag plants (upto 25 Km) $20 \times 3.38 = 67.6$	2.2.5	2000	67.6	100	Nos	1352
6	Internal transportation to planting points on head loads 15x30 cm (6x12) bag plants	2.2.11	2000	76.25	100	Nos	1525
7	Planting with gachakaya / fruitbearing species 1 mts apart in two rows (2000 Nos per km)	2.30.5	2000	116.75	100	Nos	2335
	Unit Cost per Ha						16400

As per FSR 2015-16

16400

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

18860

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

21689


Forest Divisional Officer
Achampet

**UNIT COST FOR Construction of Boudary Pillars around the
C.A. PLANTATION AREAS**

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Construction of Boundary Pillars around the CA area	100	7500	per each	750000	
		TOTAL:			750000	


Divisional Forest Officer
Achampet

UNIT COST FOR BLASTING IN UNWORKABLE AERA IN C.A. PLANTATION AREAS

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Blasting in Unworkable area 100x100x1 mtrs = 10000 cum	10000	70	Cmt	700000	
		TOTAL:			700000	


Divisional Forest Officer
Achampet

UNIT COST FOR Drilling of Bore Well & Hiring Tanker IN C.A. PLANTATION AREAS

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount	Remarks
1	Drilling of Borewell along with Solar Pump set at _____	1	700000	per	700000	
		TOTAL:			700000	


Divisional Forest Officer
Achampet

UNIT COST FOR IMPORTED SOIL IN UNWORKABLE AREA IN C.A. PLANTATIONS

Sl. No.	Nature of work	Quantity	Rate	Unit	Amount
1	<p>Cost & purchase of Red earth / Sandy/ Black cotton soil/ conveyance charges Upto 5 km lead = 84 cum beyond 5 Km to 25 km @ Rs.12.50 p/km = 315 per cum</p> <p>Initial cost of earth - Rs. 40 per Cum</p> <p>Total : Rs.439/- per Cum</p> <p>(50% of the area is filling with imported soil : 10000 cum /2= 5000 cum</p>	5000	439	per Cum	2195000
		TOTAL:			2195000


 Divisional Forest Officer
 Achampet