COMPENSATORY AFFORESTATION SCHEME

FOR 86.332 HA (TOTAL AREA 127.332 HA – UNWORKABLE AREA 41.00 HA = 86.332 HA WORKABLE AREA) (FROM 2017-18 TO 2028-29)

IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT TELANGANA

Towards diversion of forest land for Kaleshwaram Project (Total forest land proposed for diversion in different districts of Telangana State is 3221.2971 Ha and CA area proposed in various Districts of Telangana State)



COMPREHENSIVE SCHEME FOR COMPENSATORY AFFORESTATION FOR KALESHWARAM PROJECT, IN RESPECT OF EXECUTIVE ENGINEER, I & CAD, KALESHWARAM PROJECT CONSTN, DIVN.NO.3, IN WARANGAL (URBAN) DISTRICT OF TELANGANA

1) Introduction of the Scheme:-

The Executive Engineer, I & CAD, Kaleshwaram Project, Construction Div. No.3 has submitted proposals for diversion of 3221.2971 Ha of Forest land in (8) different Forest Divisions in different districts of Telangana State for construction of canals, Tunnels, Lift Irrigation systems and Reservoirs involving in the Project.

The Non – Forest land of 127.332 Ha., was identified in Warangal (Urban) District in Sy.Nos. 340 – 12.278 Ha, 353 – 75.042 Ha, 355 – 40.012 Ha: Totaling: 127.332 Ha of Gatlanarsingapur Village, Bheemdevarapally Mandal of Warangal (Urban) District in the jurisdiction of Elkathurthy Range of District Forest Officer, Warangal (Urban) District. The User Agency has submitted an Undertaking given by the District Collector & Magistrate, Warangal (Urban) District Dt:10.03.2017 duly certifying that, the above said lands are Government Revenue Lands and are free from all encumbrances and encroachments. The said lands are not assigned to any individuals/ organizations and further stated that the above said land will be transferred and mutated in the name of the Forest Department and handed over to the Forest Department on receipt of Stage-I approval under Forest (Conservation) Act,1980 for the said project in lieu of diversion of forest land for the proposed Kaleshwaram Project in (8) Districts duly handing over the Compensatory Afforestation land of 127.332 Ha., which is part of the Non-Forest land of 177.775 Ha in Warangal District in the jurisdiction of Elkathurthy Range of Warangal (Urban) District on 14-03-2017.

The survey number wise land details are as follows:

Sl.	Name of the	Su No	E	xtent
No.	Village	Sy.No.	Acres	Hectares
• 1	-	340	30.34	12.278
2	Gatlanarsingapur	353	185.44	75.042
3		355	98.87	40.012
	TOTAL:			127.332

1) Suitability of the Area:-

The Non forest land of 127,332 Ha., is mainly hilly with gentle slope on fringe areas is a small hillock with boulders and rocks and very less existed tree growth viz., Vepa, Moduga, Balusu, Rela and thorny bushes. This area is having about 32% rocky patch, hence the unworkable area is 41.00 Ha in Sy.No.353 & 355 of Gatlanarsingapur Village. The area is suitable for protection purpose and SMC works like check dams, percolation tanks. Continuous contour trenches and Rock fill dams. In view of the above stated reasons the above identified land in Sy.Nos. 340 – 12.278 Ha, 353 – 75.042 Ha, 355 - 40.012 Ha; Totaling: 127.332 Ha of Gatlanarsingapur Village, Bheemdevarapally Mandal of Warangal (Urban) District is suitable for taking up SMC works besides protecting the same from wildlife point of view. As per the instructions of the Prl. Chief Conservator of Forests, A.P., Hyderabad Rc.No.54480/2008/F4, Dt.16.11.2008 has issued instructions as "Not to reject Non-forest land offered for Compensatory Afforestation unless it is a sheet rock and cannot be afforested by adopting any site specific suitable afforestation techniques". In view of the above recommended to consider the above Compensatory Afforestation land and to protect the C.A. Area from further degradation and carrying out soil and moisture conservation works and digging of staggered contour trenches to protect the land in view of wildlife importance and ecological balance

The Compensatory Afforestation is proposed in the project for 86.332 Ha with an outlay of Rs.1171.519 Lakhs. The following item of works are proposed viz., Raising and maintenance of Primary beds & Bag plants Nursery, Nursery Infrastructure, Advance Operations for raising of Miscellaneous Plantations, Raising of Miscellaneous Plantations and maintenance of Miscellaneous Plantations for (9) years, Blasting cost of Rock and column digging excavator charges @ 3.00 Lakhs per Ha for 20.00 Ha, Digging of (20) Nos. Bore wells, Fixing of Motors with Connecting Pipelines, Construction of Quarter for Forest Range Officer, Elkathurthy, Camping facilities for Officers - Construction of Guest House, Construction of (4) Nos. Protection cum Supervisory Huts/ Towers, Fixing of Hot dipped Galvanized Iron Chain Link mesh around the periphery of the C.A. Area, Digging of (5) Nos. Bore wells with Solar Power System with connecting pipelines, Catchment area treatment to the SMC works like Staggered Contour Trenches (SCT's), Percolation Tanks (PT's) and Check dams (CD's) are to be taken in the affected area, Engaging of Technical Person (Retired F.S.O.) for (5) Years, Engaging of Technical Asst./ Computer Operator (2) Nos. for 5 Years, Engaging of Protection Watchers (8) Nos. for (10) years,

Purchasing of Toyota Innova Vehicle (1) No. for higher authorities of Warangal Circle for Forest Monitoring and vigilance Purpose, Purchasing of Mahindra Scorpio Vehicle (1) No. for higher authorities of District Office, Warangal (Urban) & Jangaon for Forest Monitoring Purpose and Administration & Monitoring Cost (10%) etc.,

2) Planting Techniques:-

The proposed C.A. area is mostly hilly and stone area hills, trees and shrubs. In view of the suitability and management point of view, it is proposed to take up, part of the area with trench cum pitting and planting and part of the area with blasting and pitting and planting. The blasting cost of the rocky area and column digging excavator charges is @ 3.00 Lakhs per Ha. Further it is proposed to fill the column by importing red soil and making the saucer around the respective columns which is suitable for raising of the plantation with Miscellaneous Forestry species under Barren Hill Afforestation Method in 86.332 Ha cach at an espacement of 5M x 5M.

The plantation under this scheme is proposed to be raised by adopting Labour intensive method. Miscellaneous Forestry species plantations will be taken up under labour intensive method.

One Circular weeding, Circular weeding cum deep soil working are provided. The Plantations will be provided with (8) Nos. of Watchers up to 10^{th} year maintenance of plantations. The entire area of C.A will be planted within Three years i.e., from 2017–18 to 2019-20.

3) Scheme Implementation Agency:-

The District Forest Officer, Warangal (Urban) & Jangaon will be the project implementation and monitoring agency and works will be taken up through the concerned Forest Range Officer.

Raising of C.A. Plantations essentially requires additional man power. Hence, it is proposed to hire the services of (2) Nos. Technical Asst./ Computer Operators for the project period. Accordingly provisions are made in the scheme.

4) Monitoring Mechanism :-

The District Forest Officer, Warangal (Urban) & Jangaon and Conservator of Forests. Warangal Circle, Warangal will be closely monitor the implementation of C.A. Scheme by regular inspections and ensuing maintenance of connected records like Nursery Journals,

Plantation Journals, Cash Books, Work Registers, Measurement Books and other records etc., Monthly Progress of Planting and Maintenance along with expenditure will be submitted to the Prl. Chief Conservator of Forests, Telangana, Hyderabad. Other Senior Officers of Forest Department of Telangana and Chief Conservator of Forests (Central), Bangalore will also be monitoring the implementation of the C.A. Scheme.

5) Period of the Scheme :-

Period of the Scheme is for (10) years which includes 1st year, 2nd year and 3rd year of Nursery raising, 1st year, 2nd year and 3rd year of raising of miscellaneous Plantations and (9) years of maintenance of Plantations commencing from 2017 - 18 to 2028 - 29.

6) Cost Structure:-

The cost of the scheme is worked out adopting present F.S.R. of 2016 - 17 and wage structure of Rs.509/- per day (as approved by the District Collector, Warangal (Urban). The Total year wise Cost Structure of the project to an extent of 127.332 Ha., is shown in Annexure - 1. The details of requirement of funds and year wise Action Plan are shown in Annexure - 2. Unit costs of different planting techniques are shown in Annexure - 3 to 13. The ABSTRACT of the scheme is as follows:

ANNEXURE - 1
YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL
AFFORESTATION FOR 127.332 HA IN ELKATHURTHY RANGE OF
WARANGAL (URBAN) DISTRICT

Sl.	Item of Work	Tota	l Outlay
No.	TEHLOL WOLK	Phy	Fin
	Nurseries:		
l	a) Raising of Primary beds & Bag plants	51799	6.858
- 2	b) Maintenance of bag plants	51799	2.977
3	c) Infrastructure (Hut, Pipelines, Water Tanks, Borewells etc.,)	Ls.	15.000
	Nurseries Total:		24.834
	Planting Activities:		
4	Advance Operations	86.332	220.391
5	Raising	86.332	41.309
6	1st Year Maintenance	86.332	13.165
7_	2nd Year Maintenance	86.332	14.952
8	3rd Year Maintenance	86.332	16.448
9	4th Year Maintenance	86.332	18.092
10	5th Year Maintenance	86.332	19.902
11	6th Year Maintenance	86.332	21.891
12	7th Year Maintenance	86.332	24.081

13	8th Year Maintenance	86.332	26.488
14	9th Year Maintenance	86.332	29.137
	Plantation Total:		445.856
	Other Works:		
15	Blasting cost of Rock and column digging excavator charges @ 3.00 Lakhs per Ha.	20.000	60.000
16	Digging of Borewell, Fixing Motor with Connecting Pipelines.	20.0	100.000
17	Construction of F.R.O. Quarter	1	25.000
18	Camping facilities for Officers - Construction of Guest House.	1	35.000
19	Construction of Protection cum Supervisory Huts/ Towers (2) Nos.	4	80.000
20	Fixing of Hot dipped Galvanized Iron Chain Link mesh around the periphery of the C.A.Area.	7.52 Kms	63.563
21	Digging of Borewell with Solar Power System with connecting pipelines.	5.0	52.500
22	Catchment area treatment to the SMC works like SCT's, PT's and CD's are to be taken in the effected area.	Ls.	70.000
23	Engaging of Technical Person (Retired F.S.O.) for 5 Years	1	9.000
24	Engaging of Technical Asst./ Computer Operators (2) Nos. for 5 Years @ Rs.15,000/ Per month	2	18.000
25	Engaging of Protection Watchers (8) members for 10 years "6 x 9000 per month X 120 months"	8	103.680
26	Purchasing of Toyota Innova Vehicle (1) No. for higher authorities of Circle Office, Warangal for Forest Monitoring Purpose	1	22.000
27	Purchasing of Mahindra Scorpio Vehicle (1) No. for higher authorities of District Office, Warangal Urban District for Forest Monitoring Purpose	1	17.500
28	Administration & monitoring Cost (10%)	Ls.	44.586
	Other works Total :		700.828
	Grand Total :		1171.519

Total No. of beds and seedlings required to be raised from 2017-18 to 2019 - 20

SI.	Model	Es-	 Species	Area in	No. of	Replace Casualiti		Loss due	Grand Total no.	No. of beds required	Dommler
140.		pacement		Ha	plants	Raising	Maint. Year	portation (5%)	seedlings required	(500 seedling / bed)	Remarks
	Barren			36.332	14533	2907	3633	727	21799	44	2017-18
1	Hill Affor	Gap plantation	Misc.,	30.000	12000	2400	3000	600	18000	36	2018-19
	estation			20.000	8000	1600	2000	400	12000	24	2019-20
		Total:		86.332	34533	6907	8633	1727	51799	104	

ABSTRACT OF NURSERIES

SI.	Madal	Year	Target	Cost of	raising of	Nursery	Year of		Maint. of (April to	•	Total
No.	Model	of raising	Area in Ha	Phy. In Ha	Phy (Nos)	Fin	main- tenance	Phy. In Ha	Phy (Nos)	Fin	Fin
	BHA Misc.,	2017- 18		36.332	21799	3.26988	2018-19	36.332	21799	1.30795	4.57783
1	GAP Plantation	2018- 19	86.332 Ha	30.000	18000	2.07000	2019-20	30.000	18000	0.96300	3.03300
_ <u>.</u>	400 Plants per Ha	2019- 20		20.000	12000	1.51800	2020-21	20.000	12000	0.70560	2.22360
	Grand	Total:		86.332	51799	6.85788		86.332	51799	2.97655	9.83443

SMC Works: SMC works like Staggered Contour Trenches (SCT's), Percolation Tanks (PT's) and Check Dams (CD's) are to be taken in the affected area. These structures will be constructed in the specified locations as a measure of Soil Moisture Conservation works. These structures will increase and improve the available ground water table in that area.

ii) PROVISION OF FUNDS AND THE MECHANISM TO ENSURE THAT THE FUNDS WILL BE UTILIZED FOR RAISING AFFORESTATION.

The funds will be utilized from the funds to be deposited by the Chief Engineer, Kaleshwaram Project, Jalasoudha Building, Errum Manzil, Hyderabad towards the Compensatory Afforestation.

6. Details of proposed monitoring mechanism.

The concerned Forest Beat Officer and the Forest Section Officer will execute the works proposed under the guidance of the Forest Range Officer, Elkathurthy Supervised by the District Forest Officer, Conservator of Forests, Warangal Circle, Warangal and other Higher Officers. The Plantation model wise, year wise activities and their unit costs worked out and annexed.

ABSTRACT OF NURSERIES

											
Sl.	Model	Year of	Target Area	Cost of	raising of	Nursery	Year of	Cost of beds	Maint. o	f Nursery July)	Total
No.		raising	in Ha	Phy. In Ha	Phy (Nos)	Fin	main- tenance	Phy. In Ha	Phy (Nos)	Fin	Fin
	BHA Misc.,	2017-18		36.332	21799	3.26988	2018-19	36.332	21799	1.30795	4.57783
1	GAP Plantation	2018-19	86.332 Ha	30.000	18000	2.07000	2019-20	30.000	18000	0.96300	3.03300
	400 Plants per I-Ia	2019-20		20.000	12000	1.51800	2020-21	20.000	12000	0.70560	2.22360
	Gran	d Total:		86.332	51799	6.85788		86.332	51799	2.97655	9.83443

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BARREN HILL AFFORESTATION METHOD

ANNEXURE - 1

YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL AFFORESTATION FOR 127.332 HA IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT

S	la 6337 1	T	otal Outlay
-	Nurseries:	Phy	Fin
\vdash_{i}			
1 2	, and a state of the state of t	51799	6.858
3	the state of bug plants	51799	2.977
尸	17, miles a detaile (11th, 11 permes, water 1 anks, Borewells etc.,)	Ls.	15.000
Г	Planting Activities: Nurscries Tota	<u>l:</u>	24.834
4	Advance Operations	96 222	
5	Raising	86.332	220.391
6	1st Year Maintenance	86.332	41.309
7	2nd Year Maintenance	86.332	13.165
8	3rd Year Maintenance	86.332	14.952
9	4th Year Maintenance	86.332	16.448
10	5th Year Maintenance	86.332	18.092
11	6th Year Maintenance	86.332	19.902
12	7th Year Maintenance	86.332	21.891
13	8th Year Maintenance	86.332	24.081
14	9th Year Maintenance	86.332	26.488
	Plantation Total	86.332	29.137
	Other Works:		445.856
15	Blasting cost of Rock and column digging excavator charges @ 3.00 Lakhs per Ha.	20.000	60.000
16	Digging of Borewell, Fixing Motor with Connecting	20.0	100.000
17	Construction of F.R.O. Quarter	1	25.000
18	Camping facilities for Officers- Construction of Guest House.	1	35.000
_	Construction of Protection cum Supervisory Huts/ Towers (2) Nos.	4	80.000
4	Fixing of Hot dipped Galvanized Iron Chain Link mesh around the periphery of the C.A.Area.	7.52 Kms	63.563
	Digging of Borewell with Solar Power System with connecting pipelines.	5.0	52.500
	Catchment area treatment to the SMC works like SCT's, PT's and CD's are to be taken in the effected area.	Ls.	70.000
3	Engaging of Technical Person (Retired F.S.O.) for 5 Years	1	9.000
	Engaging of Technical Asst./ Computer Operators (2) Nos. for 5 Years @ Rs.15,000/ Per month	2	18.000
	Engaging of Protection Watchers (8) members for 10 years 6 x 9000 per month X 120 months"	8	103.680
F	Purchasing of Toyota Innova Vehicle (1) No. for C.F., Warangal or Forest Protection Purpose	1	22.000
7 P	urchasing of Mahindra Scorpio Vehicle (1) No. for C.F., Varangal for Forest Protection Purpose	I	17.500
A	dministration & monitoring Cost (10%)	Ls.	44.586
	Other works Total:		700.828
	Grand Total :	 -	1171.519

YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL AFFORESTATION FOR 127.332 HA IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT.

ANNEXURE - 2

01	Tota	Outlay	20	17 - 18	201	18 - 19	,201	9 - 20	202	0 - 21	202	1 - 22	202	2 - 23	202	3 - 24	202	4 - 25	2025	5 - 26	2026	5 - 27	2027	7 - 28	202	28 - 29	Gran	nd Total
Item of Work	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
Nurseries													1 1		_					1								
a) Raising of Primary beds & Bag plants	51799	6.858	21799	3.270	18000	2.070	12000	1.518																			51799	6.858
b) Maintenance of bag plants	51799	2.977	21799	1.308	18000	0.963	12000	0.706			u l									-							51799	2.977
c) Nursery Infrastructure (Hut, Pipelines, Water Tanks, Borewells etc.,)	Ls	15.000		5.000		5.000		5.000																			Ls.	15.000
Nurseries Total	:	24.834		9.578		8.033		7.224		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000				24.834
Planting activities																												
4 Advance Operations	86.33	220.391	36.3	85.610	30.00	77.759	20.00	57.023																			86.33	220.391
Raising	86.33	41.309	36.3	16.046	30.00	14.575	20.00	10.688																			86.33	41.309
Ist Year Maintenance	86.33	13.165			36.33	5.114	30.00	4.645	20.00	3.406																	86.33	13.165
7 2nd Year Maintenance	86.33	14.952					36.33	5.808	30.00	5.275	20.00	3.869															86.33	14.952
3rd Year Maintenance	86.33	16.448							36.33	6.389	30.00	5.803	20.00	4.256													86.33	16.448
4th Year Maintenance	86.33	18.092									36.33	7.028	30.00	6.383	20.00	4.681											86.33	18.092
10 5th Year Maintenance	86.33	19.902											36.33	7.731	30.00	7.022	20.00	5.149									86.33	19.902
1. 6th Year Maintenance	86.33	21.891													36.33	8.504	30.00	7.724	20.00	5.664							86.33	21.891
12 7th Year Maintenance	86.33	24.081															36.33	9.354	30.00	8.496	20.00	6.231					86.33	24.081
13 8th Year Maintenance	86.33	26.488																	36.33	10.289	30.00	9.346	20.00	6.853			86.33	26.488
th Year Maintenance	86.33	29.137						15												-	36.33	11.318	30.00	10.280	20.0	7.539	86.33	29.137
Plantation Total	127.33	445.856	72.7	101.656	96.33	97.447	106.3	78.164	86.33	15.071	86.3	16.699	86.3	18.369	86.33	20.206	86.33	22.227	86.33	24.449	86.33	26.894	50.00	17.134	20.0	7.539	127.33	445.856
Other Works																												
Blasting cost of Rock and column digging xcavator charges @ 3.00 Lakhs per Ha.	20.00	60.000	20.00	60.000											-												20.000	60.000
pigging of Borewell, Fixing Motor with Connecting Pipelines.	20.00	100.000	12	60.000	8	40,000			34												# -4 			VEN-			20.0	100.00

Year of W		Total	Outlay	201	17 - 18	201	18 - 19	201	9 - 20	202	0 - 21	202	1 - 22	202	2 - 23	202	3 - 24	2024	1 - 25	2025	5 - 26	2026	6 - 27		7 - 28	-	28 - 29	Gra	nd Total
Item of W	ork	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
Construction of Quarter	of F.R.O.	1	25.000	₁	15.000		10.000			-15-111																		i	25.000
Camping facili Officers- Constr Guest House.		1	35.000	1	25.000		10.000										1				-							1	35.000
Construction of Protection cum Supervisory Hut Towers (4) Nos.	uts/	4	80.000	2	40.000	2	40.000																-					4	80.000
Fixing of Hot di Galvanized Iron Link mesh around the perip the C.A.Area.	n Chain	7.52 Kms	63.563		23.563		20.000		20.000																			7.52 Kms	63.5628
Digging of Bore with Solar Powe with connecting pipelines.	er System	5	52.500	2	21.000	2	21.000	1	10.500		-												1					5	52.500
Catchment area treatment to the sworks like SCT's and CD's are to be in the effected ar	e SMC I's, PT's be taken	Ls.	70.000	Ls.	25.000	Ls.	20.000	Ls.	10.000	Ls.	10.000	Ls.	5.000															Ls.	70.000
Engaging of Tec Person (Retired I for 5 Years		1	9.000	1	1.800	1	1.800	1	1.800	1	1.800	1	1.800															1	9.000
Engaging of Tec Asst./ Computer Operator (2) Nos Years @ Rs.15,0 month	er os. for 5	2	18.000	2	3.600	2	3.600	2	3.600	2	3.600	2	3.600					-										2	18.000
Engaging of Prot Watchers (8) met for 10 years "5 x per month X 120	embers x 9000	8 -	103.680	8	8.640	8	8.640	8	8.640	8	8.640	8	8.640	8	8.640	8	8.640	-8	8.640	8	8.640	8	8.640	8	8.640	8	8.640	8	103.68
Purchasing of To Innova Vehicle (for C.F., Warang Forest Protection Purpose.	(1) No. agal for	1	22.000	1	22.000			=							June												2	1	22.00

SI.	CXX/	Total	Outlay	201	7 - 18	20	18 - 19	201	9 - 20	202	0 - 21	2021	- 22	202	2 - 23	202	3 - 24	202	4 - 25	202	5 - 26	202	6 - 27	2027	- 28	202	8 - 29	Grar	nd Total
ih.	Item of Work	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
	Purchasing of Mahindra Scorpio Vehicle (1) No.			7137																									-
27	for D.F.O., Warangal (Urban) & Jangaon for Forest Protection	1	17.500	1	17.500									==					<u>•</u>				- 1-		_	-		1	17.500
	Purpose.																												
7 V I	Administration & monitoring Cost (10%)	Ls.	44.586		10.166		9.745		7.816		1.507		1.670		1.837		2.021		2.223		2.445		2.689		1.713		0.754		44.58
62	Other works Total :		700.828	-	333.268		184.785	-	62.356		25.547		20.710		10.477		10.661		10.863	-	11.085		11.329	-	10.353	-	9.394		700.82
100	Grand Total :		1171.519		444.502		290.265		147.744		40.618		37.409		28.846		30.867		33.090		35.534		38.224		27.487		16.933		1171.5

ANNEXURE - 3

Unit Cost for Advance operations during 2016 - 17 under Pit and Planting Method as per FSR 2016 - 17

Sl.	FSR Item	Item of work	Units	Qty	Rate	Per	Amount
No.	No.				1		/ Milouin
l	2	3	4	5	6	7	8
1	02.19.01	Survey with GPS (Only staff to carry out)) (Staff to carryout GPS Survey. One manday is allowed for assistance)	Rmt	1	311.04	1	311.00
2	02.19.03	Alignment and staking including laying base line in espacement 5m x 5m (400 Nos)	Nos	400	98.77	100	395
3	02.19.04	Cost of 0.45 M Stake preparation and transportation to site.	Nos	400	47.30	100	189
4	02.09.08	Digging of pits in hard Gravelly soils(January - March)					
		Digging of 100 cms x 100 cms x 100 cms	Nos	400	233.29	1	93316.00
5	SSR 2013-14 M-092	Earth cost or Compensation for earth taken from private lands	Cum	400	40	1	16000.00
6	SSR 2013-14	Transport to earth from private lands to plantation site including loading and unloading upto 5 Km lead	Cum	400	80.00	1	32000.00
7		Transport to earth from private lands to plantation site including including loading and unloading beyond 5 Km - extra for every each Km. (15 Kms)	Cum	400	180.00	1	72000.00
		Unit cost for	2016 - 17		Total:		214211
		Unit cost for	2017 - 18		Total:		235632

ANNEXURE - 4 UNIT COST FOR RAISING OF HILL AFFORESTATION PLANTATION

400 Plants / Ha 5 Mts x 5 Mts Espacement

[]	Sl. FSR co	T T T T T T T T T T T T T T T T T T T		400 Pla	ints/Ha 5 N	Its x 5 Mts	s Espacemer
í	SI. FSR co	Item of the Work.	Unit	Qty	Rate	Per	Amount
		Digging of Staggerred Contour trenches				+	
<u> </u>	1 02.19.1	Digging of Staggerred Contourtrenches hard Gravelly soils.	in Cmt	250	272.71	1	68178
	2	Filling of pits with tank silt	Nos	400	9351.36	1000	3741
	02.19,1	Transport of Bag plants plants from nurses site to plantation site including loading arunloading upto 5 Km lead	ry nd				3,11
3	A/a.	Cost of 20X30cm (8"X12") bag plants	Nos	400	40.00	1	16000
	02.19.19	Transport of Bag plants plants from Nurser	ry d	100	40.00		16000
4	02.02.06	(o 1112) oug plants	100 nos per km	400	135.00	100	540
	02.19.23	points on head loads.	g				
5	02.02.12	tag places	Nos	400	117.94	100	472
	Prop. Rate	Planting bag plants					
6	(02.20.04)	11100m V 100 m V 100	Nos	400	807.49	100	3230
7	02.20.02	Chloropyriphos	A/a	400	1.00	l l	400
8	02.20.01	Application of 50gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after planting.	Nos	400	32.62	100	130
9	02.21.01	Dibbling of overnight-soaked Neem seeds, including cost of seeds on the mound	Nos	400	90.50	100	362
-		Weeding & Soil working					
10	02.21.06	1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
11	02.21.07	2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
12	02.21.09	For hard gravelly soil	Nos	400	545.08	100	2100
13		Replacement of Casualties 20% during Raising (50% of rate of original pitting rate during raising year and 100% during maintenance years. Planting, Transportation and internal transportation as prescribed above).	Nos	80	1350.57	100	1080
14		Cost of DAP @ 25gm/planting point	A/a	400	1.00	-	
		O D 1 S Point	Па	400	1.00	_ 1	400

SI. No	FSR code No.	Item of the Work.	Unit	Qty	Rate	Per	Amount			
15	02.21.04	Application of fertilizer in August (30days after planting) by making 3 holes of 10cm depth with crow bar holes at a distance of 10cm away from plant and putting fertilizers and closing.	Nos	400	32.62	100	130			
16	02.21.10	Creation of Fire lines 3mts wide inside the plantation	Rmt	400	5.08	1	2032			
17	02.21.11	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	103.19	100	413			
18	02.21.12	Fencing the brush wood fencing with locally available thorny species is limited to length which is not covered by trench	Rmt	400	24.12	1	9648			
19		Cost of publicity board including cost of board, painting charges, transportation, fixing etc.,	A/a	1	300.00	1	300			
20	02.16.20	Watering the Plants manually	No.	400	539.35	100	2157			
21	02.21.14	Watch & Ward (One watcher is allowed for 10 - 30 ha. plantation. If the area is less than 10 ha, prior approval of Conservator of Forests is required.)	Per Ha	1	7500.00	1	7500			
 .					Unit cost for	r 2016 - 17	119724			
				<u> </u>	Unit cost for	r 2017 - 18	131696			
					Unit cost for	2018 - 19	144866			
					Unit cost for		159353			
					Unit cost for		175288			
Unit cost for 2021 - 22 192										

ANNEXURE - 5 UNIT COST FOR 1ST YEAR MAINTENANCE OF HILL AFFORESTATION PLANTATION(Per Ha)

S. No.	FSR Code	Item of work	Unit	Quantity	Rate	Per	Amount
l	02.22.01	Replacement of Casualties 25% in 1st year	Nos	100	1467.21	100	1467
2	02.22.02	1st Circular weeding to a radius of 0.5 Mts around the plant after 30 days of planting (July - Aug)	Nos	100	103.79	100	104
3	02.22.03	2nd Circular weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	100	103.79	100	104
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
4	02.22.05	For hard gravelly soil	Nos	100	545.08	100	545
5	02.23.03	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	103.19	100	413
6	02.17.06	Watering the Plants manually	No.	400	539.35	100	2157
7	02.23.05	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests s required. Provided the survival is 30% at the end of raising year.)	Per Ha	I	9000.00	1	9000
	 				Unit cost fo	r 2016 - 17	13790
	_				Unit cost fo		15169
					Unit cost fo		16686
					Unit cost fo Unit cost fo		18355
	-				Unit cost for		20190 22209

ANNEXURE - 6 UNIT COST FOR 2ND YEAR MAINTENANCE OF HILL AFFORESTATION PLANTATION (Per Ha)

S. No.	FSR Code	Item of work	Unit	Quantity	Rate	Рег	Amount
1	02.24.01	1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2	02.24.02	2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3	02.24.04	For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
4	02.25.03	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
_						or 2016 - 17	14168
			· 	<u> </u>		r 2017 - 18	15585
- ·					Unit cost fo		17143
 -			· · · · · · · · · · · · · · · · · · ·		Unit cost fo		18858
			- ·	···	Unit cost fo		20743
					Outt cost 10	r 2021 - 22	22818

ANNXURE - 7
UNIT COST FOR 3RD YEAR MAINTENANCE OF HILL AFFORESTATION

	,	TOTAL PROPERTY OF THE PROPERTY	MINCE	OF HILL	AFFOREST.	ATION	
Sl. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
l		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
_		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5	i	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
					Unit cost fo	or 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
	<u> </u>				Unit cost fo	r 2019 - 20	18858
- ·· -			<u> </u>		Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
					Unit cost fo	r 2022 - 23	25100
					Unit cost for		27610
				·	Unit cost for	2024 - 25	30370
					Unit cost fo	or 2025-26	33407

ANNXURE - 8
UNIT COST FOR 4TH YEAR MAINTENANCE OF HILL AFFORESTATION

			· inter	OF HILL.	APPOREST.	AHON	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
ì		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	ı	9000.00	1	9000
			· 		Unit cost fo	or 2016 - 17	14168
					Unit cost fo	or 2017 - 18	15585
					Unit cost fo	or 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
					Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
					Unit cost fo		25100
			·		Unit cost fo		27610
	-		-		Unit cost for		30370
					Unit cost for	r 2025 - 26	33407

ANNXURE - 9
UNIT COST FOR 5TH YEAR MAINTENANCE OF HILL AFFORESTATION

		TEAR WARTEN	MITCE	OF HILL	Arrokesi,	AHON	
Sl. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Рег	Amount
I		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5	,	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	ī	9000.00	I	9000
					Unit cost fo	or 2016 - 17	14168
					Unit cost fo	or 2017 - 18	15585
,					Unit cost fo	r 2018 - 19	17143
-					Unit cost fo	r 2019 - 20	18858
					Unit cost fo	r 2020 - 21	20743
			- ··		Unit cost fo	r 2021 - 22	22818
<u> </u>			 -		Unit cost fo		25100
					Unit cost fo		27610
					Unit cost for		30370
					Unit cost for	r 2025 - 26	33407

ANNXURE - 10 UNIT COST FOR 6TH YEAR MAINTENANCE OF HILL AFFORESTATION

	T	THE PARTY OF THE PARTY EN	11111021		AFFOREST.	AHUN	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
1		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
		1	L	_	Unit cost fo	or 2016 - 17	14168
			<u></u>		· .	or 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
					Unit cost fo	r 2020 - 21	20743
				<u> </u>	Unit cost fo	r 2021 - 22	22818
	· ·		_ .		Unit cost fo		25100
	······································				Unit cost fo		27610
_					Unit cost fo		30370
					Unit cost for	r 2025 - 26	33407

ANNXURE - 11
UNIT COST FOR 7TH YEAR MAINTENANCE OF HILL AFFORESTATION

	т — —	THE COST TOR THE LEAR MAINTEN	AITCE		AFFUKES [A	AHON	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
ļ		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	I	9000.00	1	9000
					Unit cost for	r 2016 - 17	14168
					Unit cost for	2017 - 18	15585
					Unit cost for	· 2018 - 19	17143
					Unit cost for	2019 - 20	18858
	_				Unit cost for	2020 - 21	20743
					Unit cost for	2021 - 22	22818
					Unit cost for	2022 - 23	25100
··- <u>-</u>	 -				Unit cost for	2023 - 24	27610
					Unit cost for	2024 - 25	30370
					Unit cost for	2025 - 26	33407

ANNXURE - 12
UNIT COST FOR 8TH YEAR MAINTENANCE OF HILL AFFORESTATION

				OI IIIDD /	TT ORESTA	111011	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
l		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
···	<u> </u>				Unit cost fo	r 2016 - 17	14168
· .					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
···-					Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
	-		·		Unit cost fo	r 2022 - 23	25100
			.		Unit cost fo	r 2023 - 24	27610
					Unit cost for	r 2024 - 25	30370
 _	<u> </u>		_		Unit cost for		33407
					Unit cost for	r <u>20</u> 26 - 27	36748

ANNXURE - 13
UNIT COST FOR 9TH YEAR MAINTENANCE OF HILL AFFORESTATION

		TOTAL STATE OF THE PARTY OF THE	MITCE	OF HILL.	ALLOKE214	NOLLE	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
]		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is	Per Ha	1	9000.00	1	9000
					Unit cost fo	or 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
_			····		Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
					Unit cost for	r 2022 - 23	25100
					Unit cost for	r 2023 - 24	27610
			<u> </u>	·	Unit cost for	r 2024 - 25	30370
					Unit cost for		33407
					Unit cost for		36748
					Unit cost for	2027 - 28	40423

M.S.Earth Movers Developers

Door No.9-16-24, Ahmedpura Colony, Nizamabad.503 001. Cell:+91-8686137867 Email:mohsifaisal4u@gmail.com

To
The Divisional Forest officer,
Medak Forest Division,
Medak.

ESTIMATE

S.No.	Particulars	Qty.	Amount
1	Blasting Cost	1mtr x 1mtr x 1mtr	450.00
2.	Colum Digging Excavator Charges	lmtr x lmtr x lmtr	300.00
	Total:		750.00

Terms & Conditions:

- 1.Minimum 1000 columns no transportation charges.
- 2.As per marking work will be done.

Copy to:

GSPL India Transco Limited (GITL) GSPL Bhavan, GIDC Electronic Estate, Sector-26 Gandhi Nagar -380 028, Gurat, India.

> M.S.Earth Movers Developers

Total No. of beds and seedlings required to be raised from 2017-18 to 2019 - 20

	Г		_		_	_		_	-		_			_
												Z ;	<u>~</u> _	_
		To		,	Aftorestation		Barren Hill					Model		
		Total:		-	plantation	Cap	Gan					Espacement Species Area in Ha		
	86.332 34533 6907				141120.,	Miss					•	Species		
			20.000	20.000	000.00	30,000	30.332	35, 325				Area in Ha		
			8000	0000	12000	12000	14533				plants	No. of		
			1600		2400		2907	Raising		Casualit	Replace			
	8633	8633			3000		3633		Year	Maint.		Casualities (20%)	Replacement of	
	1727		400		600		727			on (5%)	transportati	Loss due to	•	
	51799		12000	10000	10000	2000	21799	-	required	seedlings	of	_		
	104	-	74	30	3	1	AA	(200)	hed)	seedling/	(500	required	No. of beds	
		2019-20	טר טוטר	2018-19		201/-18	3017 10				Remarks	-		

ABSTRACT OF NURSERIES

9.83443	2.97655 9.83443	51799	86.332		6.85788	51799	86.332		Total.		
							2		Fotol	Grand Total.	
2.22360	0.70560 2.22360	12000	20.000	2020-21	1.51800	12000	20.000		2019-20		
3.03300	0.90000 3.03300		00.000							400 Plants per Ha	
102200	005200	18000	30 000	2019-20	2.07000	18000	30.000	2018-19 86.332 Ha 30.000	2018-19	UAP Plantation	_
									}) A D DI	<u>-</u>
4 57783	1.30795 4 57783	21799	36.332	2018-19	3.26988	21799	36.332		2017-18	BHA Misc.,	_
Fin	Fin	Phy (Nos)	Phy. In Ha	ø	Fin	Ha Phy (Nos)	Ha Ha	Ha	C		
				maintenanc			7	111111111111111111111111111111111111111	raising		No.
Lotai	_	(April to July)		rear or		,		Areain	Year of	Model	<u>د</u> د
3	sery beds	Cost of Maint. of Nursery beds	Cost of N	V	Nursery	Cost of raising of Nursery	Cost	Target	·		2
							_	_			

ABSTRACT FOR ADVANCE WORKS FOR RAISING OF PLANTATIONS UNDER BARREN HILL AFFORESTATION METHOD

SI.	Na. 4.1	Year of Advance	Target Area	С	ost of Advance ope	erations
No	Model	operations	in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2017-18		36.332	2.35632	85.60982
!	GAP Plantation	2018-19	86.332 Ha	30.000	2.59195	77.75856
	400 Plants per Ha	2019-20		20.000	2.85115	57.02294
	Gra	and Total:		86.332		220.39132

ABSTRACT FOR RAISING OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.			Target Area in		Cost of raising	
No	Model	Year of Raising	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2017-18		36.332	0.44166	16.04639
1	GAP Plantation	2018-19	86.332 Ha	30.000	0.48583	14.57478
	400 Plants per Ha	2019-20]	20.000	0.53441	10.68817
·	Gr	and Total:		86.332		41.30934

ABSTRACT FOR 1st - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

Sì.	M.J.1	lst year	Target Area	C	Cost of 1st year maintenance		
No	Model	maintenance	in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.,	2018-19		36.332	0.14075	5.11373	
1	GAP Plantation	2019-20	86.332 Ha	30.000	0.15483	4.64475	
	400 Plants per Ha	2020-21		20.000	0.17031	3.40615	
			Grand Total:	86.332		13.16463	

ABSTRACT FOR 2nd - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Model	2nd year	Target Area in	Co	ost of 2nd year main	tenance
No	Iviouei	maintenance	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2019-20		36.332	0.15986	
1	GAP Plantation	2020-21	86.332 Ha	30.000	0.17585	5.80803
	400 Plants per Ha	2021-22	7 t	20.000	0.19343	5.27538
			Grand Total:		0.17545	3.86861 14.95203

		•

ABSTRACT FOR 4th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

Sl.	Model	4th year	Target Area	C	ost of 4th year main	епапсе
No	Model	maintenance	in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2021 - 22		36.332	0.19343	
1	GAP Plantation	2022 - 23	86.332 Ha	30.000	0.21277	7.02770
	400 Plants per Ha	2023 - 24	7 1	20.000		6.38319
			Coord Total		0.23405	4.68101
			Grand Total:	86.332		18.09189

ABSTRACT FOR 5th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Na. A-1	5th year	Target Area	Target Area Cost of		enance
No	Model	maintenance	in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2022 - 23		36.332	0.21278	7.73072
1	GAP Plantation	2023 - 24	86.332 Ha	30.000	0.23406	7.02174
	400 Plants per Ha	2024 - 25	7 1	20.000	0.25746	5.14928
	·····		Grand Total:	86.332		19.90174

ABSTRACT FOR 6th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

				_				
Sl.	Model	Andel 6th year	Target Area	C	Cost of 5th year maintenance			
No	Model	maintenance	in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)		
	BHA Misc.,	2023 - 24		36.332	0,23405			
1	GAP Plantation	2024 - 25	1 86 222 11-	96 222 11-	86.332 Ha			8.50350
	400 Plants per Ha		00.332 ma	30.000	0.25746	7.72365		
		2025 - 26		20.000	0.28320	5.66401		
	Grai	nd Total:		96 222		J.00401		
				86.332		21.89116		

ABSTRACT FOR 7th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Model	Model 7th year 7		Cost of 5th year maintenance				
No	Wiodel	maintenance	Target Area in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)		
	BHA Misc., GAP Plantation	BHA Misc., 2024 - 25	36.332	0.25746				
1		2025 - 26	1 oc 222 11 F	96 222 11	86.332 Ha			
- 1	400 Plants per Ha		00.332 Ha	30.000	0.28321	8.49618		
	, , , , , , , , , , , , , , , , , , , ,	2026 - 27	1	20.000	0.31153	6.23053		
	Grai	nd Total:		96 222		0.23033		
				86.332		24.08075		

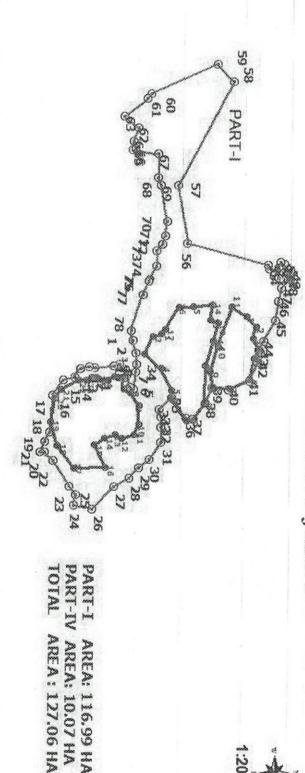
ABSTRACT FOR 8th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI. No	Model	8th year Target Area maintenance in Ha	Target Area	Cost of 5th year maintenance			
			_	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.,	2025 - 26	86.332 Ha	36.332	0.28320	10.28922	
1	GAP Plantation	2026 - 27		30.000	0.31152	9.34560	
400 Plants per Ha	400 Plants per Ha 2027 - 28]	20.000	0.34267	6.85344		
	Gra	nd Total:		86.332		26.48826	

ABSTRACT FOR 9th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI. No	Model	9th year Target maintenance in I	Towns A.z.	Cost of 5th year maintenance			
			in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.	2026 - 27	86.332 Ha	36.332	0.31152	11.31814	
Į	GAP Plantation	2027 - 28		30.000	0.34267	10.28016	
	400 Plants per Ha	2028 - 29		20.000	0.37694	7.53878	
	Gra	nd Total:		86.332		29.13709	

Bheemadevarapally (M), Warangal Urban District in lieu of forest proposed Map showing proposed CA Land to be taken over in Gatlanarsingapur (V), for diversion for Kaleshwaram Project



UM-WORKABLE AREA

PATCH - I AREA: 17,47 HA
PATCH - II AREA: 14,79 HA
PATCH - III AREA: 8,38 HA

TOTAL AREA: 40.64 HA

Deputy Executive Engineer

Sub. Division No. 2

Kaleshwaram Project

86 854 83

Indundante

PART-IV

1000

2000 Meters

Hotion Class

Jaco

Chief Englisher
Kaleshwaram Project
Jalasoudha Building,

50

GATLA NARSINGAPUR

		_		,	GATL
	SI.I		P.No	Latitude	Longitude
		_1	1		4 79.30439
		2		+	
		3	3		
		4	4	10,000	1 79.30596
		5	5	18.0930	1 79.30682
		6	6	 	0 79.30670
			7	18.0926	9 79.30610
-		8	8	18.0924	5 79.30577
ļ		9	9	18.0923	1 79.30556
		의	10	18.0920	79.30564
-		1	11	18.09104	79.30576
		2	12	18.09077	79.30568
	1	3	13	18.09034	79.30580
ļ		4	14	18.09005	79.30621
L		5	15	18.08948	79.30639
L	1	6	16	18.08897	79.30711
L	_ 1	7	17	18.08880	79.30897
	1	8	18	18.08880	79.30897
L	_ 19	9	19	18.08857	79.30944
L	20	0	20	18.08856	79.31001
	2.	1	21	18.08836	
Γ	22	2	22	18.09801	
Γ	23	3	23	18.08982	
Γ	24	1	24	18.09004	
	25	,	25	18.09016	
Γ	26	;	26	18.09098	
Γ	27	,	27	18.09206	79.31170
Γ	28		28	18.09283	79.31128
r	29		29	18.09329	79.31074
Γ	30	+	30	18.09380	79.31334
Γ	31	1	31	18.09439	79.30948
r	32	+-	32	18.09441	79.30872
厂	33	+	33	18.09438	79.30820
r	34	┿	34	18.09428	
-	35	┺	35	18.09489	79.30782
H	36	┢	36	18.09564	79.30721
_	37	-	37		79.30823
_	38	┝╌	38	18.09594 18.09659	79.30829
	39	\vdash	39		79.30745
	40	-	40	18.09692	79.30668
_	41	_	41	18.09773	79.30679
	42		42	18.09877	79.30635
_	43			18.09920	79.30542
	44	_	43	18.09923	79.30482
_	45	_	45	18.09946	79.30435
_	46			18.10006	79.30333
	_	_	46	18.10022	79.30236
	47		47	18.10036	79.30172
_	48		48	18.10066	79.30129
	49		49	18.10086	79.30092
	50	_	50	18.10065	79.30080

SI.No	P.N	0	Latitu	de	Longi	tud	e
5	1	51	18.100)50	79.3	005	3
5.	2	52	18.100	30	79.30	004	4
5:	3	53	18.100)19	79.30	007	2
54	4	54	18.099	73	79.30	007	6
5.	5	55	18.099	68	79.30	005	5
56	5	310	18.095	65	79.29	95	o
57	7	309	18.095	15	79.29	66:	3
58	3	321	18.097	85	79.29	144	4
59) :	320	18.097	04	79.29	05!	5
60)	276	18.093	79	79.29	202	2
61	.]	277	18.093	58	79.29	230	5
62		278	18.093	13	79.29	375	5
63		279	18.092	45	79.29	318	3
64		84	18.092	91	79.29	441	1
65	1	85	18.092	38	79.29		-
66	2	86	18.0930	00	79.29		
67	7	87	18.094	16	79.29		4
68	2	88	18.0941	17	79.29		4
69	2	89	18.0943	-	79.29		┥.
70	2	90	18.0946	-	79.29		4
71	2	91	18.0945	_	79.29		4
72	2	92	18.0943	9	79.299		٠.
73	2	93	18.0941	_	79.299		1
74		94	18.0941	_	79.300		l
75		95	18.0937	_	79.301		
76		96	18.0937	_	79.301		
77		97	18.0934		79.302		
78		98	18.0928	+	79.303	_	
79	29	99	18.0763	_	79.295		P
80	19	97	18.0690		79.299		•
81		8	18.0698		79.299	—	
82		9	18.0692	-	79.300		
83		0	18.07390		79.298	_	
84	20		18.07420		79.297		
85	20	-	18.07447		79.297	_	
86	20		18.07518	-1-	79.296		
87	20	-+-	18.07567	-	9.295		
88	20	_	18.07601	+-	9.295		
89	20	_	18.07635	-+	9.295	_	
90	20	_	18.07654	+	9.2956	_	
91	20	_	18.07624	+	9.2956		
92	20	_	18.07796	+	9.2956	_	
93	21	_	18.07798		9.2956	_	
94	21	┿	18.07808	_	9.2955	_	
95	21	_	18.07857	+	9.2948	_	
96	21		8.07856	-	9.2948 9.2948	_	
97	214	_	8.07885	-		_	
98	21!		8.07908	_	9.2947		
99	216				9.2942	┥	
100		+-	8.07926	_	9.2945	-	
700	300	<u>11</u>	8.07902	_ /	9.2943	/	

PART-IV

PATCH-I (17.47 Ha)

S.No	Latitude	la)
		Longitude
1	18.09091	79.30621
2	18.09117	79.30624
3	18.09131	79.30632
4	18.09172	18.30637
5	18.09204	79.30617
6	18.09242	79.30623
7	18.09251	79.30682
8	18.09288	79.30700
9	18.09329	79.30762
10	18.09329	79.30855
11	18.09305	79.30908
12	18.09246	79.30928
13	18.09211	79.30908
14	18.09157	79.30929
15	18.09107	79.30961
16	18.09164	79.31074
17	18.09006	79.31079
18	18.08922	79.30967
19	18.08887	79.30848
20	18.08909	79.30726
21	18.08940	79.30685
22	18.09026	79.30637
23	18.09064	79.30638

PATCH-II (14.79 Ha)

		· · · ·
S.No	Latitude	Longitude
1	18.09439	79.30406
2	18.09395	79.30417
3	18.09354	79.30502
4	18.09437	79.30577
5	18.09492	79.30685
6	18.09490	79.30728
7	18.09566	79.30835
8	18.09600	79.30830
9	18.09654	79.30751
10	18.09660	79.30562
11	18.09696	79.30435
12	18.09722	79.30346
13	18.09681	79.30334
14	18.09690	79.30255
15	18.09594	79.30268
16	18.09523	79.30269
17	18.09456	79.30378

PATCH-III (8.38 Ha)

* 7.11	CIT-III (0.36	110)
S.No	Latitude	Longitude
1	18.09861	79.30313
2	18.09908	79.30366
3	18.09894	79.30424
4	18.09926	79.30576
5	18.09903	79.30523
6	18.09877	79.30627
7	18.09791	79.30707
8	18.09700	79.30678
9	18.09684	79.30590
10	18.09718	79.30463
11	18.09788	79.30267

COMPENSATORY AFFORESTATION SCHEME FOR 50.443 HA

(FROM 2017-18 TO 2028-29)

IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT TELANGANA

DIVERSION OF 177.775 HA OF FOREST LAND FOR KALESHWARAM PROJECT IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT

ABSTRACT

Sl. No	Model	Area in Ha	Espacement
1	Barren Hill Afforestation Method	50.443	GAP PLANTATION 400 PLANTS PER HA
	Total:	50.443	

COMPREHENSIVE SCHEME FOR COMPENSATORY AFFORESTATION FOR KALESHWARAM PROJECT, IN RESPECT OF EXECUTIVE ENGINEER, I & CAD, KALESHWARAM PROJECT CONSTN, DIVN.NO.3, IN WARANGAL (URBAN) DISTRICT OF TELANGANA

1) Introduction of the Scheme:-

The Executive Engineer, I & CADD, Kaleshwaram Project Construction Div.No.3 has submitted proposals for diversion of 3221.2971 Ha of Forest land in (8) different Forest Divisions in different districts of Telangana State for construction of Canals, Tunnels, Lift Irrigation systems and Reservoirs involving the Kaleshwaram Project.

The Non – Forest land of 50.443 Ha., was identified in Warangal (Urban) District in Sy.No.197 – 37.906 Ha of Mulkanoor village, Sy.No.124 – 12.537 Ha of Mutharam Village Totaling: 50.443 Ha of Bheemdevarapally Mandal of Warangal (Urban) District in the jurisdiction of Elkathurthy Range of District Forest Officer, Warangal (Urban) District. The User Agency has submitted an Undertaking given by the District Collector & Magistrate, Warangal (Urban) District Dt:10.03.2017 duly certifying that, the above said lands are Government Revenue Lands and are free from all encumbrances and encroachments. The said lands are not assigned to any individuals/ organizations and further stated that the above said land will be transferred and mutated in the name of the Forest Department and handed over to the Forest Department on receipt of Stage-I approval under Forest (Conservation) Act,1980 for the said project in lieu of diversion of forest land for the proposed Kaleshwaram Project in (8) Districts duly handing over the Compensatory Afforestation land of 50.443 Ha., which is part of the Non-Forest land of 177.775 Ha in Warangal District in the jurisdiction of Elkathurthy Range of Warangal (Urban) District on 14-03-2017. The survey number wise land details are as follows:

Sl.	Name of the	Sy.No.	Extent		
No.	Village		Acres	Hectares	
	Mulukanoor	197	93.67	37,906	
_2	Mutharam	124	30.98	12.537	
	TOTAL:			50.443	

1) Suitability of the Area:-

The proposed C.A. Land is Non forest land of 50,443 Ha., is mainly hills and stones with trees and shrubs and the fringe area of the hill is a small hillock with boulders

and rocks and very less existed tree growth viz., Vepa, Moduga, Balusu, Rela and thorny bushes. The area is suitable for protection purpose and SMC works like check dams, percolation tanks, Continuous contour trenches and Rock fill dams. In view of the above stated reasons the above identified land in Sy.No.197 – 37.906 Ha of Mulukanoor village, Sy.No.124 – 12.537 Ha of Mutharam Village Totaling: 50.443 Ha is suitable for taking up SMC works besides protecting the same from wildlife point of view. As per the instructions of the Prl. Chief Conservator of Forests, A.P., Hyderabad Rc.No.54480/2008/F4, Dt.16.11.2008 has issued instructions as "Not to reject Nonforest land offered for Compensatory Afforestation unless it is a sheet rock and cannot be afforested by adopting any site specific suitable afforestation techniques". In view of the above recommended to consider the above Compensatory Afforestation land and to protect the C.A. Area from further degradation and carrying out soil and moisture conservation works and digging of staggered contour trenches to protect the land in view of wildlife importance and ecological balance.

The Compensatory Afforestation is proposed in the project with an outlay of Rs.836.004 Lakhs. The following item of works are proposed viz., Raising and maintenance of Primary beds & Bag plants Nursery, Nursery Infrastructure, Advance Operations for raising of Miscellaneous Plantations, Raising of Barren Hill Afforestation and their maintenance for (9) years. Some of the areas are having rocky boulders which requires blasting for pitting and planting. The Blasting cost of Rock and column digging excavator charges @ 3.00 Lakhs per Ha for 15.00 Ha, Digging of (10) Nos. Bore wells, Fixing Motor with Connecting Pipelines, Construction of Water Tanks (30,000 Ltrs Capacity) including connecting pipelines @ Rs.20.00 lakhs per Tank, Construction of F.S.O. Quarter, Construction of F.B.O. Quarter, Construction of (2) Nos. Protection cum Supervisory Huts/ Towers, Fixing of 2.50 Metres height Hot dipped Galvanized Iron Chain Link fencing around the 3.80 Kms periphery of the C.A. Area is proposed since it is very much essential because of the wildlife protection and also due to agricultural land surrounding the area for protection, Digging of (3) No. Bore wells with Solar Power system for recharging the Percolation tank for providing water in summer season to the Wild animals. Catchment area treatment to the SMC works like Staggered Contour Trenches (SCT's), Percolation Tanks (PT's) and Check dams (CD's) are to be taken in the area for supporting growth of the natural vegetation, Engaging of Technical Person (Retired F.S.O.) for (5) Years, Engaging of Technical Asst./ Computer Operator (1) No. for 5 Years, Purchasing of Mahindra Thar Jeeps (2) Nos. for Forest Protection and

vigilance purpose, Engaging of Protection Watchers (5) members for (10) years and Administration & Monitoring Cost (10%) etc.,

2) Planting Techniques:-

The proposed C.A. area is mostly hilly and stone area hills, trees and shrubs. In view of the suitability and management point of view, it is proposed to take up, part of the area with trench cum pitting and planting and part of the area with blasting and pitting and planting. The blasting cost of the rocky area and column digging excavator charges is @ 3.00 Lakhs per Ha. Further it is proposed to fill the column by importing red soil and making the saucer around the respective columns which is suitable for raising of the plantation with Miscellaneous Forestry species under Barren Hill Afforestation Method in 50.443 Ha each at an espacement of 5M x 5M.

The plantation under this scheme is proposed to be raised by adopting Labour intensive method. Miscellaneous Forestry species plantations will be taken up under labour intensive method.

One Circular weeding, Circular weeding cum deep soil working are provided. The Plantations will be provided with (5) Nos. of Watchers up to 10th year maintenance of plantations. The entire area of C.A. will be planted within Three years i.e., during 2017–18 and 2019-20.

3) Scheme Implementation Agency :-

The District Forest Officer, Warangal (Urban) & Jangaon will be the project implementation and monitoring agency and works will be taken up through the concerned Forest Range Officer.

Raising of C.A. Plantations essentially requires additional man power. Hence, it is proposed to hire the services of (2) Nos. Technical Asst./ Computer Operators for the project period. Accordingly provisions are made in the scheme.

4) Monitoring Mechanism :-

The District Forest Officer, Warangal (Urban) & Jangaon and Conservator of Forests, Warangal Circle, Warangal will be closely monitor the implementation of C.A. Scheme by regular inspections and ensuing maintenance of connected records like Nursery Journals, Plantation Journals, Cash Books, Work Registers, Measurement Books and other records etc.,

Monthly Progress of Planting and Maintenance along with expenditure will be submitted to the Prl. Chief Conservator of Forests, Telangana, Hyderabad. Other Senior Officers of Forest Department of Telangana and Chief Conservator of Forests (Central), Bangalore will also be monitoring the implementation of the C.A. Scheme.

5) Period of the Scheme :-

Period of the Scheme is for (10) years which includes 1st year of Nursery raising, 1st year raising of miscellaneous Plantation and (9) years of maintenance of Plantations commencing from 2018 - 19 to 2026 - 27.

6) Cost Structure:-

The cost of the scheme is worked out adopting present F.S.R. of 2016 - 17 and wage structure of Rs.509/- per day (as approved by the District Collector, Warangal (Urban). The Total year wise Cost Structure of the project to an extent of 50.443 Ha., is shown in Annexure - 1. The details of requirement of funds and year wise Action Plan are shown in Annexure - 2. Unit costs of different planting techniques are shown in Annexure - 3 to 13. The ABSTRACT of the scheme is as follows:

ANNEXURE - 1
YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL
AFFORESTATION FOR 50.443 HA IN ELKATHURTHY RANGE OF
WARANGAL (URBAN) DISTRICT

SI. No	Item of Work	Tota	l Outlay
		Phy	Fin
	Nurseries:		
_1	a) Raising of Primary beds & Bag plants	30266	3.979
2	b) Maintenance of bag plants	30266	1.731
3	c) Infrastructure (Hut, Pipelines, Water Tanks, Bore wells etc.,)	Ls.	15.000
	Nurseries Total:		20.710
_	Planting Activities:		
4	Advance Operations	50.443	128.521
5	Raising	50.443	71.831
6	1st Year Maintenance	50.443	8,274
	2nd Year Maintenance	50.443	10.286
	3rd Year Maintenance	50.443	11.314
	4th Year Maintenance	50.443	12.446
0	5th Year Maintenance	50.443	13.690
1	6th Year Maintenance	50.443	
2	7th Year Maintenance	50.443	15.059
3	8th Year Maintenance	50.443	16.565

_14	9th Year Maintenance	50.443	20.043
	Plantation Total:		326.250
	Other Works:		
15	Blasting cost of Rock and column digging excavator charges @ 3.00 Lakhs per Ha.	15.00	45.000
16	Digging of Bore wells, Fixing Motor with Connecting Pipelines.	10.0	50.000
17	Construction of Water Tanks (30,000 Ltrs Capacity) including connecting pipelines @ Rs.20.00 lakhs per Tank	3	60.000
18	Construction of F.S.O. Quarter	1	23.00
19	Construction of F.B.O. Quarter	ı	20.00
20	Construction of Protection cum Supervisory Huts/ Towers (2) Nos.	2	40.000
21	Fixing of Hot dipped Galvanized Iron Chain Link mesh around the periphery of the C.A.Area.	3.80 Kms	32.120
22	Digging of Borewell with Solar Power system.	3	31.500
23	Catchment area treatment to the SMC works like SCT's, PT's and CD's are to be taken in the effected area.	Ls.	50.000
24	Engaging of Technical Person (Retired F.S.O.) for 5 Years	I	9.000
25	Engaging of Technical Asst./ Computer Operators (2) Nos. for 5 Years @ Rs.15,000/ Per month	2	18.000
6	Engaging of Protection Watchers (5) members for 10 years "6 x 9000 per month X 120 months"	5	64.800
7	Purchasing of Mahindra Thar Jeeps for protection purpose.	2	13.000
8	Administration & monitoring Cost (10%)	Ls.	32.625
	Other works Total :		489.044
	Grand Total:		836.004

Total No. of beds and seedlings required to be raised from 2017-18 to 2019 - 20

		Τ	<u> </u>	т——	¬			OIX 2017-1	0.002017	- 20	
SI. No.	Model	Es-	Species	Area	No.	Replace Casua (20		Loss due to trans-	Grand Total no.	No. of beds required	
		pacement		in Ha	plants	Raising	Maint. Year	portation (5%)	of seedlings required	(500 seedling / bed)	Remarks
	Barren Hill	Com		20.443	8177	1635	2044	409	12266	25	2017-18
1	Afforestation	Gap plantation	Misc.,	20.000	8000	1600	2000	400	12000	24	2018-19
				10.000	4000	800	1000	200	6000	12	2019-20
	To	tal:		50.443	20177	4035	5044	1009	30266	61	

ABSTRACT OF NURSERIES

	Grand	l Total:	ĺ	50.443	30266	3.97887		50.443	30266	1.73075	5.70962
	per Ha	2019-20		10.000	6000	0.75900	2020-21	10.000	6000	0.35280	1.11180
1	Plantation 400 Plants	2018-19	Ha	20.000	12000	1.38000	2019-20	20.000	12000	0.64200	2.02200
ı	Misc., GAP	<u></u>	50.443			1.03707	2018-19	20.443	12266	0.73595	2.57582
	BHA	2017-18		20.443	12266	1.83987	2018-19	 	 `- ´-		
		Tuising	in Ha	Phy. In Ha	Phy (Nos)	Fin	nance	Phy. In Ha	Phy (Nos)	Fin	Fin
SI. No.	Model	Year of raising	Target Area	<u> </u>	raising of	Nursery	Year of mainte-		Maint. c (April t	of Nursery o July)	Total

SMC Works: SMC works like Staggered Contour Trenches (SCT's), Percolation Tanks (PT's) and Check Dams (CD's) are to be taken in the affected area. These structures will be constructed in the specified locations as a measure of Soil Moisture Conservation works. These structures will increase and improve the available ground water table in that area.

ii) PROVISION OF FUNDS AND THE MECHANISM TO ENSURE THAT THE FUNDS WILL BE UTILIZED FOR RAISING AFFORESTATION.

The funds will be utilized from the funds to be deposited by the Chief Engineer, Kaleshwaram Project, Jalasoudha Building, Errum Manzil, Hyderabad towards the Compensatory Afforestation.

6. Details of proposed monitoring mechanism.

The concerned Forest Beat Officer and the Forest Section Officer will execute the works proposed under the guidance of the Forest Range Officer, Elkathurthy Supervised by the District Forest Officer, Conservator of Forests, Warangal Circle, Warangal and other Higher Officers. The Plantation model wise, year wise activities and their unit costs worked out and annexed.

ANNEXURE - 1

YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL AFFORESTATION FOR 50.443 HA IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT

Sl. No	1		otal Outlay
· · · ·	Nurseries;	Phy	Fin
1	a) Raising of Primary beds & Bag plants		
2	b) Maintenance of bag plants	30266	3.979
		30266	1.731
<u> </u>	c) Infrastructure (Hut, Pipelines, Water Tanks, Borewells etc.,)	Ls.	15.000
	Planting Activities: Nurseries Total	al:	20.710
4	Advance Operations	50.440	
5	Raising	50.443	128.521
6	1st Year Maintenance	50.443	71.831
7	2nd Year Maintenance	50.443	8.274
8	3rd Year Maintenance	50.443	10.286
9	4th Year Maintenance	50.443	11.314
10	5th Year Maintenance	50.443	12.446
\neg	6th Year Maintenance	50.443	13.690
_	7th Year Maintenance	50.443	15.059
13 8	8th Year Maintenance	50.443	16.565
	th Year Maintenance	50.443	18.221
	Plantation Total	50.443	20.043
	Other Works:	+	326.250
5 B	Blasting cost of Rock and column digging excavator charges @ .00 Lakhs per Ha.	15.00	45.000
6 [Digging of Borewell, Fixing Motor with Connecting Pipelines.	10.0	50.000
_[0	Construction of Water Tanks (30.000 Ltrs Capacity) including connecting pipelines @ Rs.20.00 lakhs per Tank	3	60.000
	onstruction of F.S.O. Quarter	1	23.00
	onstruction of F.B.O. Quarter	1	20.00
) (C	onstruction of Protection cum Supervisory Huts/ Towers (2) Nos.	2	40.000
ar	xing of Hot dipped Galvanized Iron Chain Link mesh	3.80 Kms	32.120
Ca	gging of Borewell with Solar Power System with connecting	3	31.500
ait	tchment area treatment to the SMC works like SCT's, PT's and CD's to be taken in the effected area.	Ls.	50.000
En	gaging of Technical Person (Retired F.S.O.) for 5 Years	1	9.000
	gaging of Technical Asst./ Computer Operators (2) Nos. for 5 Years Rs.15.000/ Per month	2	18.000
+-	gaging of Protection Watchers (5) members for 10 years x 9000 per month X 120 months"	5	64.800
Pui	chasing of Mahindra Thar Jeeps for protection purpose.	2	13.000
Ad	ministration & monitoring Cost (10%)	Ls.	32,625
	Other works Total :		489.044
	Grand Total:	——— 	836.004

ANNEXURE - 2

YEAR WISE DETAILED ABSTRACT OF C.A. SCHEME IN BARREN HILL AFFORESTATION FOR 50.443 HA IN ELKATHURTHY RANGE OF WARANGAL (URBAN) DISTRICT.

Si.	Item of Work		l Outlay	-	017 - 18	20	18 - 19	20	19 - 20	20:	20 - 21	20:	21 - 22	20	22 - 23	20	23 - 24	20	24 - 25	20	25 - 26	20	26 - 27	1 20	27 20		000 00	1	
_	urseries	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	_	Phy	Fin	Phy	27 - 28 Fin	Phy	028 - 29	-	rand Tot
_	Raising of Primary			+	-														1		1	1 lly	1111	Fily	rin	Phy	Fin	Phy	Fi
be	ds & Bag plants	30266	3.979	12266	1.840	12000	1.380	6000	0.759																		-	20256	
	Maintenance of bag	30266	1.731	12266	0.736	12000	0.642	6000	0.353										-		-	+	-	-	-	-		30266	
(c)	Nursery Infrastructure												1			-			-			-		-	-	+		30266	5 1.7
3 (H	ut, Pipelines, Water nks, Borewells etc.,)	Ls	15.000		5.000		5.000		5.000																			Ls,	15.0
	Nurseries Total:		20.710		7.576		7.022		6.112	-	0.000	-	0.000		0.000		0,000		0.000	-		-							
Pla	anting activities												0.000	-	0.000	-	0.000		0.000	-	0.000	-	0.000	-	0.000				20.7
4 Ad	vance Operations	50.443	128.521	20.443	48.170	20.00	51.839	10.00	28,511									-				-		-	-				
5 Rai	ising	50.443	71.831	20.443	26.923	20.00	28.973	10.00	15.935								-			-				-	-			50.44	128.5
6 lst	Year Maintenance	50.443	8.274			20.443	3.101	20.00	3.337	10.00	1.835										-	-						50.44	71.8
7 3nd	Year Maintenance	50.443	10.286					20.44	3.855	20.00	4.149	10.00	2.282	1								-						50.44	8.27
8 3rd	Year Maintenance	50.443	11.314							20.44	4.240	20.00	4.563	10.00	2.510						-	-						50.44	10.2
9 14th	Year Maintenance	50.443	12.446								112.10	20.44	4.665	20.00	5.020	10.00	2.761				-							50.44	11.3
0 5th	Year Maintenance	50.443	13.690									20.44	4.005	20.44	5.131		2.761	10.00	20026									50.44	12.44
1 6th	Year Maintenance	50.443	15.059											20.44	3.131	20.00	5.522	10.00	3.037									50.44	13.69
2 /th	Year Maintenance	50.443	16.565													20.44	5.644	20.00	6.074	10.00	3.341							50.44	15.05
3 13th	Year Maintenance	50.443	18.221										-					20.44	6.209	20.00	6.681	10.00	3.675					50.44	16.56
4 9th	Year Maintenance	50.443	20.043								-									20.44	6.829	20.00	7.350	10.00	4.042			50.44	18.22
	Plantation Total:	50.44	326.250	40.9	75.093	60.44	83.913	60.4	51.639	50.44	10.225	70.4	GU LLU	Carl I								20.44	7.512	20.00	8.085	10.0	4.447	50.44	20.04
19th	er Works				101030	00.44	05.715	00.4	51.039	50.44	10.225	50.4	11.510	50.4	12.661	50.44	13.927	50.44	15.320	50.44	16.852	50.44	18.537	30.00	12.127	10.0	4.447	127.33	326.25
5 od o	ting cost of Rock column digging wator charges @ Lakhs per Ha.	15.0	45.000	15.0	45.000																							15.000	45.00
rixin	ging of Borewell, ag Motor with necting Pipelines.	10	50.000	4	20.000	3	15.000	3	15.000																			10	50.00

S. No	Item of Work		d Outlay	_	17 - 18	20	18 - 19	20	19 - 20	20	20 - 21	20	21 - 22	2	022 - 23	20	23 - 24	20:	24 - 25	20	25 - 26	20	26 - 27	20	27 - 28	71	028 - 29	Gre	and Total
10		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy		Phy	_	Phy	Fin
	Construction of Water Tanks (30,000 Ltrs Capacity) including connecting pipelines @ Rs.20.00 lakhs per Tank	3	60.000	2	40.000	1	20.000																	1.00		T II,		3	60.00
18	Construction of F.S.O. Quarter	1	23.000	1	13.000		10.000						1															1	23.00
	Construction of F.B.O. Quarter	1	20.000	I	10.000		10.000																					1	20.00
20 1	Construction of Protection cum Supervisory Huts/ Towers (2) Nos.	2	40.000	1	20.000	1	20.000																					2	40.00
21	Fixing of Hot dipped Galvanized Iron Chain Link mesh around the periphery of the C.A.Area.	3.80 Kms	32.120	3.80	32.120																							3.80 Kms	32.119;
2	Digging of Borewell with Solar Power System with connecting pipelines.	3	31.500	2	21.000	1	10.500																					3	31.500
V	Catchment area Leatment to the SMC works like SCT's, PT's Jd CD's are to be taken in the effected area.	Ls.	50.000	Ls.	15.000	Ls.	10.000	Ls.	10.000	Ls.	10.000	Ls.	5.000															Ls.	50.000
P	hgaging of Technical Person (Retired F.S.O.) or 5 Years	1	9.000	1	1.800	1	1.800	1-	1.800	1	1.800	1	1.800															1	9.000
V	Engaging of Technical sst./ Computer operator (2) Nos. for 5 rears @ Rs.15,000/ Per onth	2	18.000	2	3.600	2	3.600	2	3.600	2	3.600	2	3.600															2	18.000
fo	ngaging of Protection vatchers (5) members or 10 years "5 x 9000 r month X 120 months	5	64.800	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	5.400	5	64.800

Item of Work	Total	Outlay	20	17 - 18	20	18 - 19	201	9 - 20	202	0 - 21	202	1 - 22	202	2 - 23	2023	- 24	202	4 - 25	202	5 - 26	202	·						
	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	E!					-	T			2020	6 - 27	2027	7 - 28	202	28 - 29	Gra	nd Tota
Purchasing of Mahindra							1 11/		1 my	1111	rny	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fi
Thar Jeep for Forest protection purpose.	2	13.000	1	6.500	1	6.500	ti				9			al.													2	13.0
Administration & monitoring Cost (10%)	Ls.	32.625		7.509		8.391		5.164		1.022		1.151		1.266		1.393		1.532		1.685		1.854		1.213		0.445		32.62
Other works Total:		489.044		240.929		121.191		40.964		21.822		16.951		6.666		6.793		(022								0.443		32.0.
Grand Total:		836.004		323.598		212.125						10001		0.000		0.793		6.932		7.085		7.254		6.613		5.845		489.0
		050.004		323.598		212.127		98.715		32.047		28.461		19.327		20.720		22.252		23.937		25.790		18.739		10.291		836.00

BARREN HILL AFFORESTATION METHOD

ANNEXURE - 3
Unit Cost for Advance operations during 2016 - 17 under Pit and Planting Method as per FSR 2016 - 17

		(15 Kms)				•	
7	SSR 2013-14	Transport to earth from private lands to plantation site including including loading and unloading beyond 5 Km - extra for every each Km.	Cum	400	180.00	1	72000.00
6	SSR 2013-14	Transport to earth from private lands to plantation site including loading and unloading upto 5 Km lead	Cum	400	80.00	1	32000.00
5	SSR 2013-14 M-092	Earth cost or Compensation for earth taken from private lands	Cum	400	40	1	16000.00
		Digging of 100 cms x 100 cms x 100 cms	Nos	400	233.29	1	93316.00
4	02.09.08	Digging of pits in hard Gravelly soils(January - March)					
3	02.19.04	Cost of 0.45 M Stake preparation and transportation to site.	Nos	400	47.30	100	189
2	02.19.03	Alignment and staking including laying base line in espacement 5m x 5m (400 Nos)	Nos	400	98.77	100	395
1	02.19.01	Survey with GPS (Only staff to carry out)) (Staff to carryout GPS Survey. One manday is allowed for assistance)	Rmt	1	311.04	1	311.00
	2	3	4	5	6	7	8
SI. No.	FSR Item No.	Item of work	Units	Qty	Rate	Per	Amount

ANNEXURE - 4
UNIT COST FOR RAISING OF HILL AFFORESTATION PLANTATION

400 Plants / Ha 5 Mts x 5 Mts Espacement

SI	ECD	· · · · · · · · · · · · · · · · · · ·		400 Pia	ints/Ha 5 N	Ats x 5 Mts	Espaceme
No Si		Item of the Work.	Unit	Qty	Rate	Per	Amoun
		Digging of Staggerred Contour trenches					
1	02.19.14	Digging of Staggerred Contourtrenches in hard Gravelly soils.	n Cmt	250	272.71	1	68178
2		Filling of pits with tank silt	Nos	400	9351.36	1000	3741
	02.19.17	Transport of Bag plants plants from nurser site to plantation site including loading an unloading upto 5 Km lead	y			1000	3/41
3	A/a.	Cost of 20X30cm (8"X12") bag plants	Nos	400	40.00	1	16000
	02.19.19	Transport of Bag plants plants from Nurser	y	100	40.00	1	16000
4	02.02.06	- Joug plants	100 nos per km	400	135.00	100	540
	02.19.23	Internal transport of bag plants to planting points on head loads.					
5	02.02.12	20X30cm (8"X12") bag plants Planting bag plants	Nos	400	117.94	100	472
6	Prop. Rate (02.20.04)	100cm V 100cm V 100	Nos	400	807.49	100	3230
7	02.20.02	Cost of SSP, Chloridine dust (50gm) or Chloropyriphos	A/a	400	1.00	1	400
8	02.20.01	Application of 50gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after planting.	Nos	400	32.62	100	130
9	02.21.01	Dibbling of overnight-soaked Neem seeds, including cost of seeds on the mound	Nos	400	90.50	100	362
10	02.21.06	Weeding & Soil working 1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
11	02.21.07	2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
12	02.21.09	For hard gravelly soil	Nos	400	545.08	100	2190
13	02.19.25	Replacement of Casualties 20% during Raising (50% of rate of original pitting rate during raising year and 100% during maintenance years. Planting, Transportation and internal transportation as prescribed above).	Nos	80	1350.57	100	1080
4	02.21.04	Cost of DAP @ 25gm/planting point	A/a	400	1.00		165
				700	1.00		400

ANNEXURE - 5 UNIT COST FOR 1ST YEAR MAINTENANCE OF HILL AFFORESTATION PLANTATION(Per Ha)

S. No.	FSR Code	Item of work	Unit	Quantity	Rate	Per	Amount
]	02.22.01	Replacement of Casualties 25% in 1st year	Nos	100	1467.21	100	1467
2	02.22.02	lst Circular weeding to a radius of 0.5 Mts around the plant after 30 days of planting (July - Aug)	Nos	100	103.79	100	104
3	02.22.03	2nd Circular weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	100	103.79	100	104
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
4	02.22.05	For hard gravelly soil	Nos	100	545.08	100	545
5	02.23.03	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	103.19	100	413
6	02.17.06	Watering the Plants manually	No.	400	539.35	100	2157
7	02.23.05	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
					Unit cost fo	or 2016 - 17	13790
						or 2017 - 18	15169
						or 2018 - 19	16686
	-					or 2019 - 20	18355
					Unit cost fo	r 2020 - 21	20190

ANNEXURE - 6 UNIT COST FOR 2ND YEAR MAINTENANCE OF HILL AFFORESTATION PLANTATION (Per Ha)

S. No.	FSR Code	Item of work	Unit	Quantity	Rate	Per	Amount
Î	02.24.01	1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2	02.24.02	2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3	02.24.04	For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
4	02.25.03	Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
					Unit cost fo	or 2016 - 17	14168
					Unit cost fo		15585
					Unit cost fo		17143
					Unit cost fo		18858
<u> </u>					Unit cost fo		20743
					Unit cost fo	r 2021 - 22	22818

ANNXURE - 7
UNIT COST FOR 3RD YEAR MAINTENANCE OF HILL AFFORESTATION

		ONT COST FOR SRD TEAR MAINTEN	ANCE	OF HILL	AFFOREST	ATION	
Sl. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
1		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	l	9000.00	1	9000
					Unit cost fo	r 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
	<u> </u>				Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
				 ,	Unit cost fo	r 2020 - 21	20743
 ,					Unit cost fo	r 2021 - 22	22818
	· · · · · · · · · · · · · · · · · · ·				Unit cost fo	r 2022 - 23	25100
					Unit cost fo		27610
					Unit cost for		30370
					Unit cost fo	or 2025-26	33407

ANNXURE - 8
UNIT COST FOR 4TH YEAR MAINTENANCE OF HILL AFFORESTATION

	· · · · · · · · · · · · · · · · · · ·	SHIT COST TOR THE TEAR MAINTEN	MILE	OF BILL	AFFUREST.	ATION	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
I		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	I	9000.00	I	9000
					Unit cost fo	r 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
	· · · · · · · · · · · · · · · · · · ·		 _		Unit cost fo	r 2019 - 20	18858
					Unit cost fo		20743
					Unit cost fo		22818
 .					Unit cost for		25100
				_	Unit cost for		27610
					Unit cost for		30370
				_	Unit cost for	2025 - 26	33407

ANNXURE - 9
UNIT COST FOR 5TH YEAR MAINTENANCE OF HILL AFFORESTATION

	T	CHI COST FOR STIT TEAR MAINTEN	MILLE	OF HILL	AFFUKEST.	ATION	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
Ī		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
	· · · · · · · · · · · · · · · · · · ·	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	ì	9000
					Unit cost fo	r 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
					Unit cost fo		20743
					Unit cost fo		22818
				<u> </u>	Unit cost fo		25100
					Unit cost for	 -	27610
					Unit cost for	 -	30370
 -					Unit cost for	2025 - 26	33407

ANNXURE - 10
UNIT COST FOR 6TH YEAR MAINTENANCE OF HILL AFFORESTATION

		CHIT COST FOR STILL TEAR MAINTEN		OF HILL ?	ALLOKES!	TION	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
1		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	I	9000
			<u>L</u>		Unit cost fo	or 2016 - 17	14168
					Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
			 .		Unit cost fo	r 2019 - 20	18858
					Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
					Unit cost fo	r 2022 - 23	25100
					Unit cost fo	r 2023 - 24	27610
					Unit cost fo		30370
·					Unit cost fo	r 2025 - 26	33407

ANNXURE - 11
UNIT COST FOR 7TH YEAR MAINTENANCE OF HILL AFFORESTATION

1			
Qty	Rate	Per	Amount
400	103.79	100	415
400	103.79	100	415
400	545.08	100	2180
400	539.35	 -	2157
I	9000.00	1	9000
	Unit cost for	2016 - 17	14168
	Unit cost for	2017 - 18	15585
	Unit cost for	2018 - 19	17143
	Unit cost for	2019 - 20	18858
	Unit cost for	2020 - 21	20743
	Unit cost for	2021 - 22	22818
	Unit cost for	2022 - 23	25100
	Unit cost for	2023 - 24	27610
	Unit cost for	2024 - 25	30370
	Unit cost for	2025 - 26	33407
	400 400 400 1	400 103.79 400 103.79 400 545.08 400 539.35 I 9000.00 Unit cost for	400 103.79 100 400 103.79 100 400 545.08 100 400 539.35 100

ANNXURE - 12
UNIT COST FOR 8TH YEAR MAINTENANCE OF HILL AFFORESTATION

							
Sl. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
1		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)		400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)		400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is required. Provided the survival is 80% at the end of raising year.)	Per Ha	1	9000.00	1	9000
					Unit cost fo	or 2016 - 17	14168
	<u> </u>				Unit cost fo	or 2017 - 18	15585
					Unit cost fo	or 2018 - 19	17143
	·		<u> </u>		Unit cost fo	or 2019 - 20	18858
					Unit cost fo	or 2020 - 21	20743
					Unit cost fo	or 2021 - 22	22818
					Unit cost fo	r 2022 - 23	25100
	····				Unit cost fo	r 2023 - 24	27610
					Unit cost fo	r 2024 - 25	30370
					Unit cost fo		33407
	· · · · · · · · · · · · · · · · · · ·			<u> </u>	Unit cost fo	г 2026 - 27	36748

ANNXURE - 13
UNIT COST FOR 9TH YEAR MAINTENANCE OF HILL AFFORESTATION

	· · · · · · · · · · · · · · · · · · ·	CITI COST FOR 9111 TEAR MAINTEN	× 11 1 C 20 .	OF HILLS	HI OKESIA	LION	
SI. No.	FSR code No.	Description of item of the Work.	Unit	Qty	Rate	Per	Amount
1		1st Ciriclar weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)		400	103.79	100	415
2		2nd Ciriclar weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)		400	103.79	100	415
		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)	_				
3		For hard gravelly soil	Nos	400	545.08	100	2180
4	02.18.01	Watering the Plants manually	No.	400	539.35	100	2157
5		Watch & Ward (One watcher is allowed for 20 ha. plantation. If the area is less prior approval of Conservator of Forests is	Per Ha	1	9000.00	1	9000
			-		Unit cost fo	r 2016 - 17	14168
				·····	Unit cost fo	r 2017 - 18	15585
					Unit cost fo	r 2018 - 19	17143
					Unit cost fo	r 2019 - 20	18858
					Unit cost fo	r 2020 - 21	20743
					Unit cost fo	r 2021 - 22	22818
					Unit cost fo	r 2022 - 23	25100
					Unit cost fo	r 2023 - 24	27610
					Unit cost fo	r 2024 - 25	30370
					Unit cost fo	r 2025 - 26	33407
					Unit cost fo		36748
					Unit cost fo	r <u>2027 - 28</u>	40423

M.S.Earth Movers Developers

Door No.9-16-24, Ahmedpura Colony, Nizamabad.503 001. Cell:+91-8686137867 Email:mohsifaisal4u@gmail.com

To
The Divisional Forest officer,
Medak Forest Division,
Medak.

ESTIMATE

S.No.	Particulars	Qty.	Amount
1	Blasting Cost	lmtr x lmtr x lmtr	450.00
2.	Colum Digging Excavator Charges	1mtr x 1mtr x 1mtr	300.00
	Total:		750.00

Terms & Conditions:

- 1.Minimum 1000 columns no transportation charges.
- 2.As per marking work will be done.

Copy to:

GSPL India Transco Limited (GITL) GSPL Bhavan, GIDC Electronic Estate, Sector-26 Gandhi Nagar -380 028, Gurat, India.

> M.S.Earth Movers Developers

Total No. of beds and seedlings required to be raised from 2017-18 to 2019 - 20

						SI.			
	1	Afforestation	Barren Hill			Model			
10121:		plantation	Gap			Espacement Species Area in Ha			
		MISC.,	.			Species			
50.443	10.000	20.000	20.443	30.443		Area in Ha			
20177	4000	8000	81//		plants	No. of			
4035	800	1600	1635		Raising	Replacement of Casualities (20%			
5044	1000	2000	2044		Maint. Year	Replacement of Casualities (20%)			
1009	200	400	409		Loss due to transportati on (5%)				
30266	6000	12000	12266		Orand Total no. of seedlings required				
61	12	24	25		seedling / bed)	No. of beds required (500			
	2019-20	2018-19	2017-18		- Kellangs	Remarks			

ABSTRACT OF NURSERIES

5.70962	1.73075 5.70962	30266	30.443		3.77007	ł	2017.10				
		- 1	50 443		3 07907	3966	50.443		Total:	Grand Total:	
1.11180	0.35280 1.11180	6000	10.000	0.75900 2020-21	0.75900	6000	10.000		2019-20		
2.02200	0.64200 2.02200	12000	20.000	2019-20	1.38000	12000	20.000	2018-19 50.443 Ha 20.000	2018-19	GAP Plantation 400 Plants per Ha	_
2.57582	0.73595 2.57582	12266	20.443	2018-19	1.83987	12266	20.443		2017-18	BHA Misc.,	•
Fin	Fin	Phy (Nos) Fin	Phy. In Ha	æ	Fin	Phy (Nos)	Ha	Ha			_
Total	sery beds	of Maint. of Nursery beds (April to July)	Cost of N	Year of maintenance	Nursery	Cost of raising of Nursery	Cost	Target Area in	Year of raising	Model	No.

ABSTRACT FOR ADVANCE WORKS FOR RAISING OF PLANTATIONS UNDER BARREN HILL AFFORESTATION METHOD

SI.	-	Year of Advance	Towart Auga in	Co	st of Advance ope	rations
No	Model	operations	Target Area in Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,	2017-18		20.443	2.35632	48.17025
1	GAP Plantation	2018-19	50.443 Ha	20.000	2.59195	51.83904
	400 Plants per Ha	2019-20		10.000	2.85115	28.51147
	Gı	rand Total:		50.443		128.52076

ABSTRACT FOR RAISING OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.			Target Area in		Cost of raising	
No	Model	Year of Raising Ha		Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
	BHA Misc.,			20.443	1.31696	26.92269
4	GAP Plantation	2018-19	50.443 Ha	20.000	1.44866	28.97320
	400 Plants per Ha	2019-20		10.000	1.59353	15.93526
	Gr	and Total:		50.443		71.83115

ABSTRACT FOR 1st - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Model	lst year	Target Area in	Co	ost of 1st year main	tenance
No	iviodei	maintenance	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
_	BHA Misc.,	2018-19		20.443	0.15169	3.10100
	GAP Plantation 400 Plants per Ha	2019-20	50.443 Ha	20.000	0.16686	3.33718
		2020-21		10.000	0.18354	1.83545
			Grand Total:	50.443		8.27363

ABSTRACT FOR 2nd - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.		2nd year	Target Area in	ost of 2nd year main	tenance		
No l	Model	maintenance	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.,	2019-20		20.443	0.18858	3.85514	
1	GAP Plantation	2020-21	50.443 Ha	20.000	0.20744	4.14876	
	400 Plants per Ha	2021-22		10.000	0.22818	2.28182	
			Grand Total:	50.443		10.28572	

ABSTRACT FOR 3rd - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Model	odel 3rd year Target Area in Cost of 3rd year r		ost of 3rd year main	intenance		
No	Model	maintenance	Ha Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.,	2020 - 21		20.443	0.20743	4.24049	
1	GAP Plantation	2021 - 22	50.443 Ha	20.000	0.22817	·	
	400 Plants per Ha	2022 - 23		10.000	0.25099	4.56346 2.50990	
	Gra	nd Total:		50.443		11,31385	

ABSTRACT FOR 4th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

Sl.	Model	4th year	Target Area in	Co	ost of 4th year maint	tenance
No 1	Wiodel	maintenance	Ha Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)
1	BHA Misc.,	2021 - 22		20.443	0.22818	4.66468
	GAP Plantation 400 Plants per Ha	2022 - 23	50.443 Ha	20.000	0.25100	5.01996
	400 Flams per Ha	2023 - 24		10.000	0.27610	2.76098
			Grand Total:	50.443		12.44562

ABSTRACT FOR 5th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Mada	5th year	Target Area in	Co	enance		
No	Model	maintenance	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)	
	BHA Misc.,	2022 - 23		20.443	0.25100	5.13119	
1	GAP Plantation	2023 - 24	50.443 Ha	20.000	0.27610		
	400 Plants per Ha	2024 - 25		10.000	0.30371	3.03710	
			Grand Total:	50.443		13.69029	

ABSTRACT FOR 6th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

Sl.	N. 11	6th year	Target Area in	Co	st of 5th year main	enance		
No l	Model	maintenance	Ha	Phy. (Area In Ha)	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)		
1	BHA Misc.,	2023 - 24		20.443	0.27610	5.64431		
	GAP Plantation	2024 - 25	50 442 11		0.30371	6.07420		
	400 Plants per Ha	2025 - 26		10.000	0.33408	3.34081		
	Gra	nd Total:		50.443		15.05932		

ABSTRACT FOR 7th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Model	7th year	Target Area in	C	ost of 5th year maint	enance		
No 1	maintenance Ha (Are		Phy. (Area In Ha)	In II-)				
	BHA Misc.,	2024 - 25		20.443	0.30370	(Rs. In Lakhs)		
1	GAP Plantation	2025 - 26	50.443 Ha			6.20854		
1	400 Plants per Ha		- 30.443 Ha	20.000	0.33407			
		2026 - 27		10.000	0.36748	3.67477		
	Gra	nd Total:		50.443		16.56471		

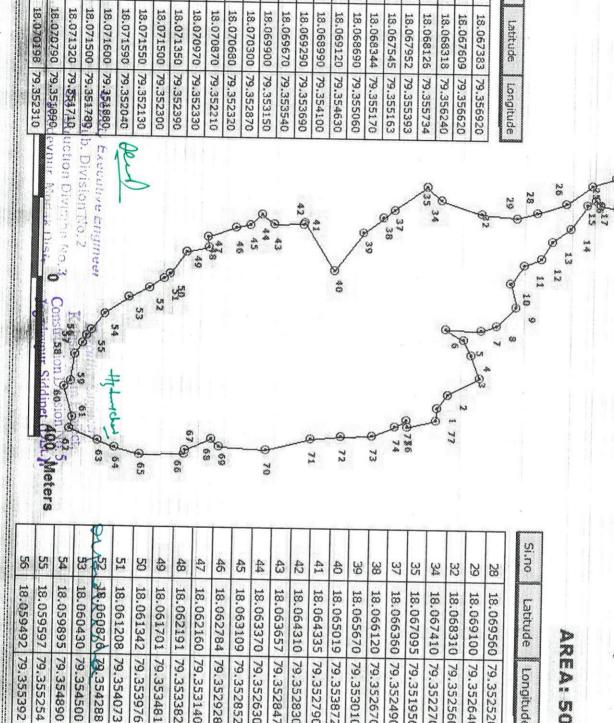
ABSTRACT FOR 8th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

Sì.	Model	8th year	Target Area in	C	tenance		
No I	maintenance Ha		Phy. (Area in Ha)	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			
	BHA Misc.,	2025 - 26		20.443	0.33407	(Rs. In Lakhs) 6.82939	
	GAP Plantation	2026 - 27	50.443 Ha	20.000	0.36748		
	400 Plants per Ha	2027 - 28	7	10.000	0.40422	7.34954	
	Gr		50.443	5110122	4.04225 18.22118		

ABSTRACT FOR 9th - YEAR MAINTENANCE OF PLANTATIONS IN BARREN HILL AFFORESTATION METHOD

SI.	Madal	9th year	Target Area in	Cost	nance			
No	Model	maintenance	Ha	(Area In Ha) (Rs. In Lakhs) 20.443 0.36748	Unit Cost (Rs. In Lakhs)	Fin (Rs. In Lakhs)		
1	BHA Misc.,	2026 - 27		20.443	0.36748	7.51239		
	GAP Plantation	2027 - 28	50.443 Ha	20.000		8.08456		
	400 Plants per Ha	2028 - 29	1	10.000	0.44465			
	Gra	nd Total:	50.443	0.11403	4.44651			

Map showing the proposed CA Land to be taken over in Sy. No. 197, Mulknoor (V), Sy.No. 124, Mutharam (V) of Bheemadevarapally (M), Warangal Urban in lieu of Forest land proposed for diversion for Kaleshwaram Project



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	77	76	75	74	73	72	71	70	69	83	67	86	83	2	63	62	51	60	59	58	57
	18.067354	18.066710	18.066690	18.066440	18.065910	18.065210	18,064526	18.063524	18.062477	18.062295	18.061720	18.061690	18,060709	18.060154	18.059766	18.059136	18.059190	18.058990	18.059151	18.059232	18.059402
The second second second second second second	79.357215	79.357369	79.357208	79.357360	79,357570	79.357590	79.357657	79.357919	79.357860	79.357685	79.357942	79.358032	79.358046	79.357902	79.357750	79.357483	79.357220	79.356551	79.356406	79.355824	79.355560

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