

**SCHEME FOR COMPENSATORY  
AFFORESTATION OVER 9.175 HA OF NON-  
FOREST GOVT. LAND @Rs. 333/- PER  
MANDAYS (AS PER ONETIME COST  
NORM) IDENTIFIED IN VILLAGE DERI  
UNDER BANSPAL TAHASIL BJP RANGE  
OF KEONJHAR FOREST DIVISION**

**IN RESPECT OF**

**JHUMKA PATHIRIPOS PAHAR IRON ORE  
BLOCK COMING UNDER KEONJHAR  
FOREST DIVISION OF KEONJHAR  
DISTRICT**

**OF**

**M/s RUNGTA MINES LTD**

**ELEMENTS OF THE SCHEME FOR COMPENSATORY**  
**AFFORESTATION**

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## **CHAPTER- I**

### **BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL**

Government of Odisha, pursuant to the Mines and Minerals (Development and Regulation) Act, 1957 and the Mineral (Auction) Rules, 2015 as amended from time to time, issued the notice inviting tender dated 07.07.2021 to commence the auction process for grant of mining lease for Jumka Pathiriposhi Pahar Iron ore block over an area of 158.509 Hectare for Iron Ore located in Koira Mining circle, district Sundergarh, Odisha. The e-auction process was conducted in accordance with the tender document for the said mineral block on 24.09.2021 and Rungta Mines Ltd. was declared as the 'Preferred Bidder' under Rule 9(9)(iii) or Rule 10 (1A) of Auction Rules, having quoted highest Final Price Offer vide letter No.MXIII(b) 46/2021/7738/DM Dated 05.10.2021 issued by Director of Mines Government of Odisha.

As required under Rule 10(1) of the Auction Rules and the tender document for the said mineral block, Rungta Mines Ltd. has made payment of the first instalment, being 20% (twenty percent) of the upfront payment of Rs.49,21,44,251/-(Forty Nine Crore Twenty One Lakh Forty Four Thousand Two Hundred Fifty One) only through Treasury Challan vide e- Challan no. 0853/1886 dated 08.10.2021 at Cyber Treasury, Dist- Sundargarh

Accordingly, pursuant to Rule 10(2) of the Auction Rules and the terms of the Tender Document, the Government of Odisha is pleased to issue Letter of Intent (LOI) bearing no. IV(B)SM-49/2021/8716/SM, Bhubaneswar dated 28.10.2021 for grant of Mining Lease for Jumka Pathiriposhi Pahar Iron ore block for Iron ore located in 20 km south of Koira town in Kedeshala village Koidatahasil, Sundergarh district on 158.509 Hectare Area to Rungta Mines Ltd. for a period of 50 (fifty) years. Out of 158.509 Ha DGPS surveyed lease area, 147.803 Ha is in Sundargarh district and 10.706 Ha is in Keonjhar district. The total forest land included is 156.978 Ha. out of which 147.803 Ha is PRF in Sundargarh district and 9.175 Ha is Revenue forest in Keonjhar district. Remaining 1.531 Ha is Non-forest Govt. land in Keonjhar district.

The present Compensatory Afforestation scheme is so prepared to compensate the forest land being diverted for non-forestry use at the Non-forest Govt. land identified in village Deri under BJP Range of Banspal Tahasil allotted for the said purpose vide letter No. 1872 dt. 26.05.2022 of Collector, Keonjhar. The CA scheme is prepared at present prevailing wages rate i.e. @Rs. 333.00 per man days with maintenance period of 10 (ten) years (As per onetime cost norm provided by the PCCF, Odisha, Bhubaneswar vide their O.O. No. 1109 dated 08.11.2021 on Base Norm for the year 2022-23).

## **CHAPTER- II**

### **DETAILS OF LAND IDENTIFIED FOR COMPENSATORY AFFORESTATION**

#### **A. LAND IDENTIFICATION AND JOINT VERIFICATION OF THE IDENTIFIED SITE.**

The site for Compensatory Afforestation has been identified in village Deri under Bansapal Tahasil in B.J.P. Range of Keonjhar Forest Division over 9.1750 ha in one patch and has been jointly verified by the Tahasildar, Bansapal, Revenue Inspector, Taramakanta, Range Officer, B.J.P. Range and Forest Section Officer, Suakati and found suitable for compensatory afforestation.

#### **B. INFORMATION ON NON-ENCROACHMENT AND NON-ENCUMBRANCE.**

The Tahasildar, Bansapal has given certificate of non-encroachment and non-encumbrance in respect of the non-forest Govt. land identified and allotted for Compensatory Afforestation over 9.1750 ha in respect of Jhumka Pathiriposi Pahar Iron Ore Block coming under Keonjhar Forest Division of Keonjhar District of M/s Rungta Mines Ltd.

#### **C. INFORMATION ON LAND STATUS.**

The land scheduled and land status identified and allotted for Compensatory Afforestation is furnished hereunder:-

Sl No	Khata no	Plot no	Kisam	Total area(ha)	Acquired area(ha)	Tenant
1	53	459(P)	HUDI	16.000	4.6330	AAA
2	53	460(P)	HUDI	16.000	4.5420	AAA
<b>Total Area</b>					<b>9.1750</b>	

#### **D. SUITABILITY OF IDENTIFIED SITE FOR COMPENSATORY AFFORESTATION.**

The identified land is free from encroachment and encumbrance. This land is neither covered under Section-4 of Orissa Forest Act, 1972 nor included in DLC report.

The non-forest Govt. land identified in village Deri is in one patch situated on upland with gentle slope is suitable for Compensatory Afforestation in AR model @1600 seedlings/ ha over 5.00 ha is Open Forest category as per the report of the Range Officer, BJP Range vide his memo No 352 dt. 28.05.2022 (Copy enclosed).

### **CHAPTER-III**

#### **DELINEATION OF PROPOSED AREA ON SUITABLE MAP**

##### **III(1) GPS COORDINATES AND DGPS MAP OF THE COMPENSATORY AFFORESTATION SITE**

The area has been demarcated through DGPS survey and 10 nos of 4' height RCC pillars have been posted around the identified area. The DGPS survey data showing latitude & Longitude of each point and their chainage with bearing has been depicted in the village sheet map (Map Enclosed). One durable sign board has been erected at the identified site at a conspicuous location with name of the project, year of allotment, name of the scheme, details of plots etc. depicted there on.

##### **Decision Support System of Non-Forest Govt. land identified in village Deri under Banspal Tahasil**

Name of the site	Area identified for plantation (in ha)	MDF (in Sq Miles)	Open Forest (in Sq. Miles)
Village- Deri	9.1750	0.04	0.05

### **CHAPTER- IV**

#### **AGENCY RESPONSIBLE FOR COMPENSATORY AFFORESTATION**

##### **IV(1) AGENCY RESPONSIBLE FOR PLACEMENT OF FUNDS**

The user agency shall provide funds for raising Compensatory Afforestation as per the approved scheme.

##### **IV(2) AGENCY RESPONSIBLE FOR EXECUTION OF COMPENSATORY AFFORESTATION**

The Territorial Wing of the Forest Department i.e. Divisional Forest Officer, Keonjhar Division will be assigned with the task for execution of Compensatory Afforestation.

## **CHAPTER- V**

### **DETAILS OF WORK SCHEDULE PROPOSED FOR COMPENSATORY AFFORESTATION**

#### **A. PLANTING PLAN**

Planting Plan reflects the species specific treatment of the identified site. Choice of species is based on the geo-morphology of the site, soil-texture, structure, fertility and depth, proneness of the site to water logging etc. Specific treatment of the site in terms of soil and moisture conservation intervention will be depicted in the treatment map. A treatment map will invariably be prepared for Species to be planted and treatments to be applied to the different patches shown in the treatment map and planting plan. This plan will be followed when actual planting is carried out. The Range Officer, BJP Range has submitted verification report vide his memo No. 352 dated 28.05.2022. The report of GIS based DSS is enclosed herewith.

#### **Species to be planted:-**

1. *Syzizium cumini* (Jamu)
2. *Adina cardifolia* (Kuruma)
3. *Anogeissus latifolia* (Dhaura)
4. *Dalbergia sissoo* (Sissoo)
5. *Azadirachta indica* (Neem)
6. *Gmelina arborea* (Gambar)
7. *Pongamia pinnata* (Karanja)
8. *Embllica officinalis* (Amla)
9. *Artocarpus integrifolia* (Panasa)

#### **B.PRE-PLANTING OPERATION**

##### **B(I)-RAISING OF PLANTATION STOCK- NURSERY-**

Nursery will be raised @1760 seedlings per ha including seedlings for 10% casualty replacement for 5.00 ha.

##### **B(II)-SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-**

The planting area has been surveyed and demarcated through DGPS survey and 10 nos of 4' height RCC pillars have been posted (as per the direction of forest Range Officer, BJP Range) with GPS co-ordinates, forward and backward bearing, pillar No. and distance between pillars inscribed in it. A DGPS map in the scale of 1:4000 has been prepared along with DGPS co-ordinates forward and backward bearing, pillar No. and distance between pillars reflected in the map. Two durable sign boards have been erected at a conspicuous location with name of the site, scheme, area etc. depicted on it.

##### **B(III)-SITE PREPARATION AND SILVICULTURAL OPERATION INCLUDING CLEARANCE OF WEED, CLIMBER CUTTING, HIGH STUMP CUTTING, SINGLING OF SHOOTS-**

The clearing of the site involving removal of invasive weeds, bushes, climbers, high stumps and singling of shoots will be taken up preferably by the end of February and latest by the end of March. Pits of the dimension 45cm<sup>3</sup> will be dug AR model @1600 seedlings/ ha over 5.00 ha preferably 2 months before or at least a month before planting of seedlings.

### **C. PLANTING OPERATION**

Planting of seedlings will be taken up in the month of July. The polythene {(size 12 x 10) (300 gauge)} covering of the balls of earth will be carefully removed before planting. Care will be taken to see that the ball of earth is not broken while doing so. The seedling with the ball of earth will then be placed firmly in the pit and buried at such a depth that the root collar is well below the surface of the soil. The soil around the plant will be well compacted with the heel as a final step so that there is a proper bond between the ball and the surrounding soil. The earth close to the collar will be slightly elevated so that rain water does not accumulate very close to the plant.

### **D. POST PLANTING OPERATION**

#### **D(1)-CASUALTY REPLACEMENT**

The entire area will be gone over in the same order as plantation was carried out and casualties, if any, will be replaced as soon as the main plantation operation is over.

#### **D(2)-WEEDING AND SOIL WORKING**

Regular and efficient weeding will start immediately after sprouting of the stumps is complete or after the seedlings have started throwing up new buds.

#### **D(3)-MANURING AND INSECTICIDE APPLICATION**

On degraded sites urban compost or farmyard manure, wherever available, will be added to the soil while refilling the pits. As regards artificial fertilizers, the minerals required and dosage @ 50 gms of patent mixtures like 'Gromor' or N.P.K. (2:2:1) will be applied in two split doses one in August and the other in September.

#### **D(4)-SOIL MOISTURE CONSERVATION MEASURES**

Special Soil Moisture Conservation Measures will be taken up through construction of LBCD structures of dimension 10' x 10' x 5' to the tune of 10 nos. over the entire plantation site.

#### **D(5)-WATERING PROVISION**

1 nos. borewell will be dug for watering over the plantation site (one diesel pump set fitted with borewell for 5 ha plantation) with maintenance and recurring expenditure for 5 years.

#### **D(6)-PROTECTION AGAINST FIRE AND BIOTIC INTERFERENCE**

The CA site of two nos. patches i.e. 147.803 ha & 9.175 ha are contiguous. The total fencing i.e. 6.49 Km has been taken in both the plantation over 156.978 ha (147.803 ha + 9.175 ha). The said fencing over the total length is 6.49 Km in the CA scheme over 147.803 ha. Therefore, in the instant scheme fencing work is not taken. Fire line tracing will be ensured to protect the plantation from fire and watch & ward will be provided as per the approved norm for protecting the plantation from grazing with involvement of Birikala VSS.

## CHAPTER- VI

### COST STRUCTURE OF PLANTATION, PROVISION OF FUNDS AND UTILIZATION

**Base Cost Norm for AR Plantation @1600 seedlings per ha (18 months old seedlings) @ 333.00/- Mandays as per revised wage rate by Labour Commissioner, Odisha, Bhubaneswar vide Notification No. 6078/LC dated 19.10.2022 and onetime cost norm provided by the PCCF, Odisha, Bhubaneswar vide their O.O. No. 1109 dated 08.11.2021 (As per base norm of Matrix for the year 2022-23).**

#### ANNEXURE-5

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
<b>0th Year (Advance work) Pre-Planting Operation</b>						
1	Survey, Demarcation and Pillar posting	Nov/Dec	2	622	0	622
2	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4	Creation of 4.00 mt wide Inspection Path	Feb/Mar	1	311	0	311
5	Alignment and stacking	Feb/Mar	2	622	0	622
6	Digging of pits (45 cm x 45 cm X 45 cm) in hard and gravelly soil	Feb/Mar	64	19904	0	19904
7	Construction of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Jan/Mar	0	0	3500	3500
	<b>Total</b>		<b>02</b>	<b>25502</b>	<b>3600</b>	<b>29102</b>
<b>1st Year/Planting Year</b>						
1	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	12	3732	8000	11732
2	Transportation of 18 months old polytop seedlings in hired truck /tractor from the permanent/Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs.6/- per Seedling. (1760 nos)	Jul/Aug	0	0	10560	10560
3	Watering the polytop seedlings at planting site	Jul/Aug	3	933	0	933
4	Conveyance of polytop seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil properly around the planted seedlings.	Jul/Aug	36	11196	0	11196
5	<u>Cost of Fertilizer &amp; Insecticide</u> (a) NPK/Bio-fertilizer @ 50 gms/plant as basal dose = 80kg @ Rs.30/- per kg = Rs. 2400.00 (b) Urea/Vermicompost/Mo Khata/any other fertilizer in two subsequent doses @ Rs. 1,200.00 (c) Insecticide/ Bio-pesticide @ 5 gms/plant= 8 kg @ Rs.150/- per kg = Rs. 1200.00	Jul/Aug	0	0	4800	4800



BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
6	Casualty Replacement @ 10% (160 nos.)	Jul/Aug	4	1244	0	1244
7	1st weeding & Manuring	Aug/Sept	15	4665		4665
8	2nd Weeding, Soil working (1mt. diameter around the plants) and Manuring	Oct/Nov	20	6220	0	6220
9	Fire line tracing (2m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
	Total		105	32655	23360	56015
2nd Year Maintenance						
1	Transportation of 160 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs.6/- per seedlings	Jul	0	0	960	960
2	Casualty replacement- 10%	Jul	4	1244	0	1244
3	Cost of Fertilizer & Insecticide: A) Cost of Insecticide/ Bio-pesticide @ 5 gms/plant = 0.8 Kg @ Rs.150/- per kg = Rs.120/- B) Urea/NPK/Bio-fertilizer/Vermicompost/Mu Khata/any other fertilizer @ Rs. 4486/-	Aug/Sept	0	0	4606	4606
4	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sep/Oct	20	6220	0	6220
5	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr-Mar	18	5598	0	5598
7	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.				1000	1000
	Total		45	13995	6566	20561

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
3rd Year Maintenance						
3	Cost of Fertilizer Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer	Sept/Oct	0	0	4486	4486
4	Weeding, Manuring & Soil working, (1mt. diametre around the plants)	Sep/Oct	20	6220	0	6220
5	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
7	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Apr/Mar			1000	1000
	Total		41	12751	5486	18237
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward	Apr-Mar	18	5598	0	5598
	Total		21	6531	0	6531
5th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
6th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2	Pruning of branches, Singling out of multiple shoots	Jan/Mar	5	1555.00	0	1555.0
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598.0
	Total		26	8086	0	8086.0
7th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
8th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
9th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
	Total		21	6531	0	6531
10th Year Maintenance						
1	Fire line tracing (2 m wide fire line over 400 m length)	Feb/Mar	3	933	0	933
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531

**Year wise Abstract of Cost Norm (showing seedling cost separately)**

Sl. No	Year	No. person days	Labour cost @ Rs. 311/- per day (Rs)	Material Cost	Monitoring, Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @Rs.50.31 per seedlings	TOTAL COST
1	2	3	4	5	6	7	8
1	0th year	82	25502	3600	1398.00	0	30500.00
2	1st year	105	32655	23360	2800.00	88546	147361.00
3	2nd year	45	13995	6566	1028.00	8050	29639.00
4	3rd year	41	12751	5486	911.00	8	19148.00
5	4th year	21	6531	0	326.00	0	6857.00
6	5th year	21	6531	0	326.00	0	6857.00
7	6th year	26	8086	0	404.00	0	8490.00
8	7th year	21	6531	0	326.00	0	6857.00
9	8th year	21	6531	0	326.00	0	6857.00
10	9th year	21	6531	0	326.00	0	6857.00
11	10th year	21	6531	0	326.00	0	6857.00
	Total:	425	132175	39012	8497	96596	276280

**Notes:**

- 1 Priority must be given to the indigenous local species available nearby to the site of plantation.
- 2 10 % indigenous fruit bearing trees must be preferred to Plantation.
- 3 Site specific Soil conservation work like LBCD, Gully Plugging, Staggered Trench, Contour Trench, Graded Bund, etc. may be
- 4 Chain link fencing can be adopted in the CA plantation taken up outside the forest area and Bamboo twigs fencing may be
- 5 Watering facilities for procurement of water & watering may be adopted as per the availability of water.
- 6 The Cost Norm of various items can be changed with the approval of the concerned RCCFs keeping the overall cost norm fixed for each Financial Year

  
 APCCF (Forest Diversion & NO, FC Act)

Matrix for Model-I B Conventional CA Plantation (AR) 1600 plants per Ha

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost (10 Years)
	Base Norm	30500	14761	26639	19148	6857	6857	8490	6857	6857	6857	6857											
1	2021-22	30500	154729	32674	22166	8335	8751	11377	9648	10131	10637	11169											310117
2	2022-23		32025	162465	34308	23274	8732	9189	11946	10130	10638	11169	11727										325623
3	2023-24			33626	170598	26023	24438	9190	9648	10543	10537	11170	11727	12313									341903
4	2024-25				35307	175177	37874	25660	9650	10130	11170	11169	11729	12313	12929								358998
5	2025-26					37072	186073	39715	26943	10133	10637	11169	11727	12315	12929	13575							376948
6	2026-27						38926	297477	41701	10630	10640	11169	11727	12313	12931	13575	14254						395796
7	2027-28							40872	207251	43786	10705	11172	11727	12316	12928	13578	14254	14857					415587
8	2028-29							42916	217719	45975	10790	11730	11731	12313	12928	13575	14257	14867	15775				436365
9	2029-30							45062	228625	48274	10874	11750	12316	12929	13578	14258	14870	15470	15775	16501			458185
10	2030-31							47315	240035	50688	10958	11788	12316	12934	13575	14258	14870	15467	15775	16501	17326		481095

In Rupees

APCCF (Forest Diversion & NO, FC Act)

## Cost Norms for Creation of Compensatory Afforestation with Stabilization of Soil Moisture Conservation (SMC)

Annexure-11			
Cost Norms for creation of Compensatory Afforestation with Stabilization of Soil & Conservation of Moisture (1000)			
WAGE RATE Rs- 311/- PER DAY			
Sl.No	Item of Works	Preferable Period of Execution	Total Cost
0th Year (Pre-Planting Operation)			
1	Nil		0
1st Year			
2	Soil Conservation measure structures like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS as per the slope & site requirement on LS	Apr/Sept.	20,215
2nd Year			
3	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
3rd Year			
4	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
Total			32,343.0

Abstract					
Sl. No	Year	No. person days	Labour cost @ Rs. 311/-per day	Material Cost	Total cost (Rs.)
1	0th year	0.0	0.0	0.0	0.0
2	1st year	0.0	0.0	20,215.0	20,215.00
3	2nd year	0.0	0.0	3,032.00	3,032.00
4	3rd year	0.0	0.0	3,032.00	3,032.00
5	4th year	0.0	0.0	3,032.00	3,032.00
6	5th year	0.0	0.0	3,032.00	3,032.00
Total		0.00	0.00	32,343.0	32,343.0

Different types of SMC structures may be taken up as per the scope & requirements of the plantation site out of the design & specification of different structures annexed along this document.

  
 APCCF (Forest Diversim & NQ, FC Act)

# Matrix for (SMC)

## Matrix for (SMC)

In Rupees

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	0	20215	3032	3032	3032	3032											
1	2021-22	0	2226	3342	3510	3655	3870											35633
2	2022-23		0	22287	3509	3656	3859	4054										37415
3	2023-24			0	23401	3684	3870	4067	4257									39284
4	2024-25				0	24571	3868	4064	4255	4480								41248
5	2025-26					0	25800	4051	4257	4478	4704							43310
6	2026-27						0	27090	4264	4480	4702	4939						45475
7	2027-28							0	28445	4477	4704	4937	5156					47749
8	2028-29								0	29867	4701	4939	5184	5445				50136
9	2029-30									0	31360	4936	5186	5463	5717			52642
10	2030-31										0	32978	5183	5445	5715	5993		55274

APCCF (Forest Diversion & NO, FC Act)

## Watering Model – W-II

### Watering Provision to CA Plantation

Watering Model-W-II			
Watering provision to CA Plantation			
Diesel pump set with Bore well (1 pump set + Bore well for 5 Ha Plantation), Wage rate @ Rs.311/-			
Year of Installation (0th Year)			
1	Cost of Borewell	1,50,000	
2	Cost of Diesel pump set 5HP	60,000	
3	Diesel pump set & accessories like commander, Pipes, etc.	30,000	
4	Water Storage Tanks/ Flexible pipes	15,000	
		2,55,000	
Cost of Water per Plant (2,55,000/ 5000) = Rs. 51/-			51,000
Cost of Water per Ha. = Rs. 51,000/-			
1st Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
2	Watering 1000 Plants (Nov-Mar.) @ 200 plants/MD with 7 days rotation 20 MD x 5 months = 100 MD x 311 =		31,100
		<b>Total</b>	<b>52,100</b>
2nd Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =	21,000	
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.	7,650	
2	Watering 1000 Plants (April- June & Nov-Mar.- 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
3rd Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =	21,000	
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.	7,650	
2	Watering 1000 Plants (April- June & Nov-Mar.- 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
4th Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =	21,000	
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.	7,650	
2	Watering 1000 Plants (April- June & Nov-Mar.- 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
5th Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =	21,000	
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.	7,650	
2	Watering 1000 Plants (April- June & Nov-Mar.- 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>

Abstract					
Sl. No.	Year	No. person days	Labour cost @ Rs. 311/- per day	Material Cost	Total cost (Rs.)
1	0th year	0	0.0	51000.0	51000.0
2	1st year	100.0	31100.0	21000.0	52100.0
3	2nd year	160	49760.0	28650.0	78410.0
4	3rd year	160	49760.0	28650.0	78410.0
5	4th year	160	49760.0	28650.0	78410.0
6	5th year	160	49760.0	28650.0	78410.0
	<b>Total:</b>	<b>740</b>	<b>230140</b>	<b>186600</b>	<b>4,16,740</b>

APCCF (Forest Diversion & NO, FC Act)

# **Matrix for Watering Model –W-II (Diesel Pumpset Fitted with Borewell) per Ha**

Matrix for Watering Model-W-II (Diesel Pumpset Fitted with Borewell) per Ha

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	5100	52100	78410	78410	78410	78410											
1	2021-22	51000	54705	86439	90771	95307	100072											478294
2	2022-23		53550	57440	90761	95310	100072	105076										502209
3	2023-24			56228	60312	65209	100076	105076	110330									527321
4	2024-25				59039	63328	100064	105080	110330	115847								553688
5	2025-26					61954	66494	105067	110334	115847	121639							581372
6	2026-27						65091	69819	110330	115851	121639	127722						610441
7	2027-28							68340	73310	115836	121644	127722	134107					640964
8	2028-29								71762	76976	121628	127726	134107	140812				673012
9	2029-30									75351	80925	117709	134112	140812	147853			706562
10	2030-31										79119	84866	134094	140818	147853	155245		741996

In Rupees

ARCCF (Forest Diversion & NO, FC Act)




### **TOTAL COST OF PROJECT**

<b>S. No</b>	<b>Item of Work</b>	<b>Unit Price</b>	<b>In Rupees</b>
1	Base Norm for 1600 plants/ ha (As per base norm of Matrix for the year 2022-23)	325623.00 x 5.00 ha	1628115.00
2	Soil Moisture Conservation (SMC) (As per base norm of Matrix for the year 2022-23)	37415.00 x 9.175 ha	343282.62
3	Cost of 1 no. borewell for watering (one diesel pump set fitted with borewell for 5 ha plantation) (As per base norm of Matrix for the year 2022-23)	502209.00 x 1 no.	502209.00
	<b>Grand Total</b>		<b>2473606.62</b> <b>Or say</b> <b>24,73,700.00</b>

**(Rupees twenty-four lakh seventy-three thousand seven hundred) only.**

### **PROVISION OF FUNDS AND FUND UTILIZATION**

**Rs. 24,73,700/-** (Rupees twenty-four lakh seventy-three thousand seven hundred) only shall be deposited by the User Agency i.e. M/s Rungta Mines Limited on approval of the scheme in Ad-hoc CAMPA Account and the funds will be utilized for raising of Compensatory Afforestation by the Divisional Forest Officer, Keonjhar Division on allotment by the Principal Chief Conservator of Forests, Odisha, Bhubaneswar.

  
**Divisional Forest Officer,**  
**Keonjhar Division**

## **CHAPTER- VII**

### **DETAILS OF PROPOSED MONITORING MECHANISM**

Compensatory Afforestation will be taken up in the identified site by the Range Officer, BJP Forest Range of Keonjhar Division. The Range Forest Officer, BJP Forest Range will undertake field checks of the works undertaken at the identified site and will be cross checked by the Asst. Conservator of Forests, (Affn.) and Divisional Forest Officer, Keonjhar Division. DGPS/GPS co-ordinates along with other required informations of Compensatory Afforestation will be uploaded in the e-Green watch Portal of NIC, MoEF, Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedlings, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of BJP Forest Range and reported to the Divisional Forest Officer for necessary action. The same thing will be reported to the Regional Chief Conservator of Forests, Rourkela Circle and Chief Conservator of Forests (PP&A), O/o the Pr. Chief Conservator of Forests, Odisha, Bhubaneswar and necessary corrective measures will be followed if required so.



**Divisional Forest Officer,  
Keonjhar Division**

## CHECK LIST SERIAL NUMBER: - 14.5

### “DSS ANALYSIS CERTIFICATE”

This is to certify that DSS Analysis of land identified for CA/ ACA/ PCA and subsequent ground truthing have been done. The outcome is as mentioned below-

Sl. No.	Name of Range	Name of the Forest Block (RF/PRF/PF/DPF/Revenue Forest)	Area identified for CA/ ACA/ PCA (in ha)	Classification of identified land (in Sq. KM)						Area suitable for plantation (in Sq. KM)				Plantation model (AR/ANR)	Remarks	
				Very Dense Forest	Moderately Dense Forest	Open Forest	Non-forest	Scrub	Water	Total	Open Forest	Non-forest	Scrub			Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Keonjhar	In village- Deri under Banspal Tahasil	CA	0	4.00	5.00	0	0	0	9.00	5.00	0	0	5.00	AR	@1600 seedlings per ha

  
Divisional Forest Officer,  
Keonjhar Division.

Countersigned

Regional Chief Conservator of Forests,  
Rourkela Circle

**SCHEME FOR ADDITIONAL  
COMPENSATORY AFFORESTATION  
OVER 6.00 HA OF DEGRADED FOREST  
LAND @Rs. 333/- PER MANDAYS (AS PER  
ONETIME COST NORM) IDENTIFIED IN  
JADIPADA RF UNDER KEONJHAR RANGE  
OF KEONJHAR FOREST DIVISION**

**IN RESPECT OF**

**JHUMKA PATHIRIPOS PAHAR IRON ORE  
BLOCK COMING UNDER KEONJHAR  
FOREST DIVISION OF KEONJHAR  
DISTRICT**

**OF**

**M/s RUNGTA MINES LTD**

**ELEMENTS OF THE SCHEME FOR ADDL. COMPENSATORY  
AFFORESTATION**

<b>CHAPTER</b>	<b>PARTICULARS</b>	<b>PAGE NUMBER</b>
<b>I</b>	<b>BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL</b>	<b>01 to 01</b>
<b>II</b>	<b>DETAILS OF LAND IDENTIFIED FOR ADDL.COMPENSATORY AFFORESTATION</b>	<b>02 to 03</b>
<b>III</b>	<b>DELINEATION OF PROPOSED AREA ON SUITABLE MAP</b>	<b>03 to 03</b>
<b>IV</b>	<b>AGENCY RESPONSIBLE FOR ADDL. COMPENSATORY AFFORESTATION</b>	<b>03 to 03</b>
<b>V</b>	<b>DETAILS OF WORK SCHEDULED PROPOSED FOR ADDL. COMPENSATORY AFFORESTATION</b>	<b>04 to 05</b>
<b>VI</b>	<b>COST STRUCTURE OF PLANTATION, PROVISION OF FUNDS AND UTILIZATION</b>	<b>06 to 17</b>
<b>VII</b>	<b>DETAILS OF PROPOSED MONITORING MECHANISM</b>	<b>18 to 18</b>

## **CHAPTER- I**

### **BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL**

Government of Odisha, pursuant to the Mines and Minerals (Development and Regulation) Act, 1957 and the Mineral (Auction) Rules, 2015 as amended from time to time, issued the notice inviting tender dated 07.07.2021 to commence the auction process for grant of mining lease for Jumka Pathiriposhi Pahar Iron ore block over an area of 158.509 Hectare for Iron Ore located in Koira Mining circle, district Sundergarh, Odisha. The e-auction process was conducted in accordance with the tender document for the said mineral block on 24.09.2021 and Rungta Mines Ltd. was declared as the 'Preferred Bidder' under Rule 9(9)(iii) or Rule 10 (1A) of Auction Rules, having quoted highest Final Price Offer vide letter No.MXIII(b) 46/2021/7738/DM Dated 05.10.2021 issued by Director of Mines Government of Odisha.

As required under Rule 10(1) of the Auction Rules and the tender document for the said mineral block, Rungta Mines Ltd. has made payment of the first installment, being 20% (twenty percent) of the upfront payment of Rs.49,21,44,251/-(Forty Nine Crore Twenty One Lakh Forty Four Thousand Two Hundred Fifty One) only through Treasury Challan vide e- Challan no. 0853/1886 dated 08.10.2021 at Cyber Treasury, Dist- Sundargarh

Accordingly, pursuant to Rule 10(2) of the Auction Rules and the terms of the Tender Document, the Government of Odisha is pleased to issue Letter of Intent (LOI) bearing no. IV(B)SM-49/2021/8716/SM, Bhubaneswar dated 28.10.2021 for grant of Mining Lease for Jumka Pathiriposhi Pahar Iron ore block for Iron ore located in 20 km south of Koira town in Kedeshala village Koidatahasil, Sundergarh district on 158.509 Hectare Area to Rungta Mines Ltd. for a period of 50 (fifty) years. Out of 158.509 Ha DGPS surveyed lease area, 147.803 Ha is in Sundargarh district and 10.706 Ha is in Keonjhar district. The total forest land included is 156.978 Ha. out of which 147.803 Ha is PRF in Sundargarh district and 9.175 Ha is Revenue forest in Keonjhar district. Remaining 1.531 Ha is Non-forest Govt land in Keonjhar district.

M/s Rungta Mines Ltd has provided the non-forest land over 9.175 ha in village Deri under Banspal Tahasil for raising compensatory afforestation. In the Decision Support System (DSS), the area coming under 4.175 ha MDF & 5.00 ha Open Forest. The plantation will be done over 5.00 ha @1600 seedlings as per report of Range Officer, BJP Range. The user agency has also provided the degraded forest land over 5.013 ha to accommodate the balance seedlings of 1175 Nos. for Additional Compensatory Afforestation.

The present scheme aims at preparation of a site-specific Compensatory Afforestation scheme over 6.00 ha of degraded forest land identified in Jadipada RF under Keonjhar Range of Keonjhar Division prepared at the prevailing wage rate @Rs. 333.00 per MD (as per onetime norm) with a maintenance period of ten years regarding Jhumka Pathiriposi Pahar Iron Ore Block of M/s Rungta Mines Ltd.

## **CHAPTER- II**

### **DETAILS OF LAND IDENTIFIED FOR ADDL. COMPENSATORY AFFORESTATION**

#### **IDENTIFICATION OF DEGRADED FOREST LAND**

##### **II(1)- Details of identified Forest land-**

The identified Forest land for Addl. Compensatory Afforestation is situated in Jadipada RF over 6.00 ha under Keonjhar Range in Keonjhar Forest Division.

##### **II(2)- Character of existing vegetation of the identified site for Addl. Compensatory Afforestation-**

The prevailing forest growth has been categorized under forest type- open jungle mainly sal in SoI Topo Sheet No. F45N10. The vegetation consists of Sal and its scattered associates like Jamu, Piasal, Asana, Sisoo, Kuruma, Karada, Dhaura, Khair, Sidha, Harida, Bahada and Ainla.

##### **II(3)- Working Plan prescription for the identified site for Addl. Compensatory Afforestation-**

The prescribed objectives of management for the identified forest block is depicted hereunder-

1. Regenerate of the degraded forest blocks including the areas once affected by shifting cultivation, by appropriate silvicultural inputs and protection measures with people's participation.
2. Improvement of the micro-climate and micro-edaphic conditions through soil and moisture conservation measures.
3. Encouragement of natural regeneration for increasing the biodiversity in forest crop.
4. Fulfillment of the bonafide needs of the local inhabitants for fuel wood, small timber, fodder and N.T.F.P. to the extent possible depending upon the productivity of the forests to ensure their participation.

##### **II(4)- Suitability of the identified site for Addl. Compensatory Afforestation-**

The identified site in Jadipada RF is a degraded patch with existing vegetation of Sal and Sal associates. Gaps are sporadically spread over the forest block. The topography of the area is mainly undulating hilly having good depth of red boulder mixed soil conducive for plantation under 200 seedlings/ ha as per field situation for 6.00 ha. The average maximum temperature is 40<sup>0</sup> to 45<sup>0</sup>C and minimum 5<sup>0</sup> to 10<sup>0</sup> C and annual rainfall varies from 1100 mm to 1800 mm. The maximum rainfall is received during the rainy season from July to September. The site has been demarcated with 4 feet RCC pillars with erection of durable signboard depicting Scheme, Year, User Agency, Area etc. on it.

### **CHAPTER-III**

#### **DELINEATION OF PROPOSED AREA ON SUITABLE MAP**

##### **III(1)- GPS COORDINATES AND GPS MAP OF THE ADDL. COMPENSATORY AFFORESTATION SITE**

The area has been demarcated through GPS survey and GPS survey data showing latitude and longitude of each point and their chainage with bearing is also enclosed in the map prepared thereon (Maps enclosed).

##### **III(2) DECISION SUPPORT SYSTEM- ANALYSIS OF FOREST COVER MAP**

The map of the proposed ACA land was processed using DSS for analysis of Forest cover over the area. The result obtained are depicted in the **Annexure- I**.

#### **Decision Support System of degraded Forest land identified in Jadipada RF under Keonjhar Range**

Name of the site	Area identified for plantation (in ha)	Non-Forest (in Sq. Miles)	Open Forest (in Sq. Miles)
Jadipada RF under Keonjhar Range	6.00	0.00	0.06

### **CHAPTER- IV**

#### **AGENCY RESPONSIBLE FOR ADDL. COMPENSATORY AFFORESTATION**

##### **IV(1)- AGENCY RESPONSIBLE FOR PLACEMENT OF FUNDS**

The user agency shall provide funds for raising Addl. Compensatory Afforestation as per approved scheme.

##### **IV(2)- AGENCY RESPONSIBLE FOR EXECUTION OF ADDL. COMPENSATORY AFFORESTATION**

The Territorial Wing of the Forest Department i.e. Divisional Forest Officer, Keonjhar Division will be assigned with the task for execution of the Addl. Compensatory Afforestation.



## **CHAPTER- V**

### **DETAILS OF WORK SCHEDULE PROPOSED FOR ADDL. COMPENSATORY AFFORESTATION**

#### **A. PLANTING PLAN**

Planting Plan reflects the species-specific treatment of the identified site. Choice of species is based on the geo-morphology of the site, soil-texture, structure, fertility and depth, proneness of the site to water logging etc. Specific treatment of the site in terms of soil and moisture conservation intervention will be depicted in the treatment map. A treatment map will invariably be prepared for Species to be planted and treatments to be applied to the different patches shown in the treatment map and planting plan. This plan will be followed when actual planting is carried out.

##### **Species to be planted: -**

1. *Dalbergia sissoo* (Sissoo)
2. *Azadirachta indica* (Neem)
3. *Terminalia belerica* (Bahada)
4. *Pongamia pinnata* (Karanja)
5. *Emblica officinalis* (Ainla)
6. *Shorea robusta* (Sal)

#### **B. PRE-PLANTING OPERATION**

##### **B(I)-RAISING OF PLANTATION STOCK- NURSERY-**

Nursery will be raised @220 seedlings per ha including seedlings for 10% casualty replacement.

##### **B(II)- SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-**

The planting area has been surveyed and demarcated with four feet height RCC pillars at inter visible distance (as per the direction of the Forest Range Officer, Keonjhar Range) with GPS coordinates, forward and backward bearing, pillar No. and distance between pillars inscribed in it. A GPS map in the scale of 1:4000 has been prepared along with GPS co-ordinates, forward & backward bearing, pillar to pillar distance and pillar numbers reflected in the map. A sign board has been erected at a conspicuous location with name of the site, scheme, area etc. depicted on it.

##### **B(III)- SITE PREPARATION AND SILVICULTURAL OPERATION INCLUDING CLEARANCE OF WEED, CLIMBER CUTTING, HIGH STUMP CUTTING, SINGLING OF SHOOTS-**

The clearing of the site involving removal of invasive weeds, bushes, climbers, high stumps and singling of shoots will be taken up preferably by the end of February and latest by the end of March. Pits of the dimension 45 cm x 45 cm x 45 cm. will be dug @200 seedlings for 6.00 ha in the preferably 2 months before or at least a month before planting of seedlings.

#### **C. PLANTING OPERATION**

Planting of seedlings will be taken up in the month of July. The polythene {(size 12 x 10) (300 gauge)} covering of the balls of earth will be carefully removed before planting. Care will be taken to see that the ball of earth is not broken while doing so. The seedling with the ball of earth will then be placed firmly in the pit and buried at such a depth

that the root collar is well below the surface of the soil. The soil around the plant will be well compacted with the heel as a final step so that there is a proper bond between the ball and the surrounding soil. The earth close to the collar will be slightly elevated so that rain water does not accumulate very close to the plant.

#### **D. POST PLANTING OPERATION**

##### **D(1)-CASUALTY REPLACEMENT**

The entire area will be gone over in the same order as plantation was carried out and casualties, if any, will be replaced as soon as the main plantation operation is over.

##### **D(2)-WEEDING AND SOIL WORKING**

Regular and efficient weeding will start immediately after sprouting of the stumps is complete or after the seedlings have started throwing up new buds.

##### **D(3)-MANURING AND INSECTICIDE APPLICATION**

On degraded sites urban compost or farmyard manure, wherever available, will be added to the soil while refilling the pits. As regards artificial fertilizers, the minerals required and dosage @ 50 grammes of patent mixtures like 'Gromor' or N.P.K. (2:2:1) will be applied in two split doses one in August and the other in September.

##### **D(4)-SOIL MOISTURE CONSERVATION MEASURES**

Special Soil Moisture Conservation Measures will be taken up through construction of LBCD structures of dimension 10' x 10' x 5' to the tune of 6 nos.

##### **D(5)-WATERING PROVISION**

The entire plantation site and 1 no. borewell will be dug for watering over the plantation site (one diesel pump set fitted with borewell for 5 ha plantation) with maintenance and recurring expenditure for 5 years.

##### **D(6)-PROTECTION AGAINST FIRE AND BIOTIC INTERFERENCE**

It is proposed to protect the plantation from grazing by domestic animals using Fencing Angle Iron & Chain Link wire mesh. The total length of such Fencing Angle Iron & Chain Link wire mesh for the patch which comes to 1.14 Km or 1140 meter. Fire line tracing will be ensured to protect the plantation from fire and watch & ward will be provided as per the approved norm for protecting the plantation from grazing with involvement of Jadipada VSS.

## CHAPTER- VI

### COST STRUCTURE OF PLANTATION, PROVISION OF FUNDS AND UTILIZATION

**Base Cost Norm for ANR Plantation @200 seedlings per ha (18 months old seedlings) @333.00/- Mandays as per revised wage rate by Labour Commissioner, Odisha, Bhubaneswar vide Notification No. 6078/LC dated 19.10.2022 and onetime cost norm provided by the PCCF, Odisha, Bhubaneswar vide their O.O. No. 1109 dated 08.11.2021 (As per base norm of Matrix for the year 2022-23)**

ANNEXURE-6						
Base Cost Norms for Compensatory Afforestation through Aided Natural Regeneration (ANR) @ 200 Seedlings/Ha. (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
<b>0th Year (Advance work) Pre-Planting Operation</b>						
1	Survey, Demarcation and Pillar posting	Nov/Dec	2	622	0	622
2	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3	Site preparation	Nov/Dec	2	622	0	622
4	Silvicultural operations including clearance of weed, cutting of climber, High stump cutting, singling of shoots & removal of cut out after drying from the field to blank space.	Jan/Feb	15	4665	0	4665
5	Alignment and stacking for digging of pits	Feb/Mar	1.5	156	0	156
6	Digging of pits (45 cm x 45 cm X 45 cm) in hard and gravelly soil	Feb/Mar	8	2488	0	2488
	<b>Total</b>		<b>28.5</b>	<b>8863.5</b>	<b>100.0</b>	<b>8963.5</b>
<b>1st Year/Planting Year</b>						
1	Refilling of pits by altering the dugout soil of the pits, application of organic compounds/ CDM/ FYM & mixing the same perfectly.	June/Jul	1.5	466.5	1000	1467
2	Transportation of 18 months old polythene bag seedlings in hired truck /tractor from the permanent/Mega nursery to planting site including Loading & unloading (Average lead of 10 Rkm) & Stacking the seedling @ Rs.6/-/ Seedling. (220 nos.)	Jul/Aug	0	0	1320	1320
3	Watering polythene bag seedlings at stacking site of plantation	Jul/Aug	0.5	155.5	0	156
4	Conveyance of polythene bag seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizer & planting after scooping the soil with other applied materials and pressing the soil perfectly around the planted seedling.	Jul/Aug	4.5	1399.5	0	1400
5	Cost of Fertilizer & Insecticide (a) NPK/ Bio-fertilizer @ 50 gms/plant as basal dose = 10kg @ Rs.30/- per kg = Rs. 300.0 (b) Urea/Vermicompost/Mo Khata/any other fertilizer @ Rs. 150.00 (c) Insecticide/ Bio-pesticide @ 5 gms/plant= 1 kg @ Rs.150/- per kg = Rs. 150/-	Jul/Aug	0	0	600	600
6	Casualty Replacement @ 10% (20 nos.)	Jul/Aug	0.5	156	0	156
7	1st weeding & Manuring	Aug/Sept	2	622	0	622
8	2nd Weeding, Soil working (1mt. diameter around the plants) & Manuring	Oct/Nov	3	933	0	933
9	Fire line tracing & Inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Aug-Mar	8	2488	0	2488
	<b>Total</b>		<b>23</b>	<b>7153</b>	<b>2920</b>	<b>10073</b>
<b>2nd Year Maintenance</b>						

Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	Transportation of 20 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs.6/- per seedling	Jul	0	0	120	120
2	Planting for casualty replacement	Jul	0.5	155.5	0.0	155.5
3	Cost of Fertilizer & Insecticide: A) Cost of Insecticide/ Bio- pesticide (Thimet/ Forate) @ 5 gms/plant = 0.1 Kg @ Rs.150/- per kg = Rs.15/- B) Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer= Rs. 560/-	Jul	0	0	575	575
4	Weeding (Complete weeding), Manuring & Soil working, (1mt. diameter around the plants)	Sep/Oct	4	1244	0.0	1244
5	Fire line tracing (2 m. wide fire line over 400 m long) & Inspection path	Feb/Mar	3	933	0.0	933
6	Watch & Ward including watering as per requirement	Apr/Mar	12	3732	0.0	3732
<b>Total</b>			<b>19.5</b>	<b>6064.5</b>	<b>695.0</b>	<b>6759.5</b>
<b>3rd Year Maintenance</b>						
3	Cost of Fertilizer:- Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer= Rs. 560/-	Sep/Oct	0	0	560	560
4	Weeding (Complete weeding), Manuring & Soil working, (1mt. Diameter around the plants)	Aug/Sep	4	1244	0	1244
5	Fire line tracing (2 m. wide fire line over 400 m long) & Inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr/Mar	12	3732		3732
<b>Total</b>			<b>19.0</b>	<b>5909.0</b>	<b>560.0</b>	<b>6469.0</b>
<b>4th Year Maintenance</b>						
1	Fire line tracing (2 m. wide fire line over 400 m long) & Inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732	0	3732
<b>Total</b>			<b>15</b>	<b>4665</b>	<b>0</b>	<b>4,665</b>
<b>5th Year Maintenance</b>						
1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
<b>Total</b>			<b>15.0</b>	<b>4665.0</b>	<b>0</b>	<b>4665</b>
<b>6th Year Maintenance</b>						
1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
<b>Total</b>			<b>15.0</b>	<b>4665.0</b>	<b>0.0</b>	<b>4665.0</b>
<b>7th Year Maintenance</b>						
1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
<b>Total</b>			<b>15.0</b>	<b>4665.0</b>	<b>0.0</b>	<b>4665.0</b>
<b>8th Year Maintenance</b>						

Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	<b>Total</b>		<b>15.0</b>	<b>4665.0</b>	<b>0.0</b>	<b>4665.0</b>

**9th Year Maintenance**

1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	<b>Total</b>		<b>15.0</b>	<b>4665.0</b>	<b>0.0</b>	<b>4665.0</b>

**10th Year Maintenance**

1	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	<b>Total</b>		<b>15.0</b>	<b>4665.0</b>	<b>0.0</b>	<b>4665.0</b>

**Year wise Abstract of Cost Norm (showing seedling cost separately)**

Sl. No	Year	No. person days	Labour cost @ Rs. 311/- per day (Rs)	Material Cost (In Rs.)	Monitoring Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5+6)	Cost of Seedlings @Rs.50.31 per seedlings	TOTAL COST
1	2	3	4	5	7	6	8
1	0th year	20.5	8863.5	100	436.50	0.00	9400.0
2	1st year	23.0	7153.0	2920	427.00	11068.00	21568.0
3	2nd year	19.5	6064.5	695	240.50	1006.00	8006.0
4	3rd year	19.0	5909.0	560	231.00	0.00	6700.0
5	4th year	15.0	4665.0	0	135.00	0.00	4800.0
6	5th year	15.0	4665.0	0	135.00	0.00	4800.0
7	6th year	15.0	4665.0	0	135.00	0.00	4800.0
8	7th year	15.0	4665.0	0	135.00	0.00	4800.0
9	8th year	15.0	4665.0	0	135.00	0.00	4800.0
10	9th year	15.0	4665.0	0	135.00	0.00	4800.0
11	10th year	15.0	4665.0	0	135.00	0.00	4800.0
	<b>Total:</b>	<b>195.0</b>	<b>60645.0</b>	<b>4275.0</b>	<b>2280.0</b>	<b>12074</b>	<b>79274.0</b>

Note:

- 1 Priority must be given to the indigenous local species available nearby to the site of plantation.
- 2 10% indigenous fruit bearing trees must be preferred to Plantation.
- 3 Site specific Soil conservation work like LBCD, Gully Plugging, Staggered Trench, Contour Trench, Graded Bund, etc. may be taken up
- 4 Chain link fencing can be adopted in the CA plantation taken up outside the forest area and Bamboo twigs fencing may be preferred in CA plantations taken up in degraded forest area.
- 5 Watering facilities for procurement of water & watering may be adapted as per the availability of water.
- 6 The Cost Norm of various items can be changed with the approval of the concerned RGCEs keeping the overall cost norm fixed for each Financial Year

  
 APCCF (Forest Diversion & NO, FC Act)

# **Matrix for ANR-200 Plants / Ha**

**Matrix for ANR-200 Plants/ Ha**

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Norm	9400	21568	8006	6700	4800	4800	4800	4800	4800	4800	4800											
1	2021-22	9400	22646	8826	7756	5834	6126	6432	6754	7092	7446	7819											96131
2	2022-23		9840	23778	9267	8144	6126	6432	6754	7092	7447	7818	8210										100938
3	2023-24			10364	24967	9730	8551	6432	6754	7092	7447	7819	8209	8621									105986
4	2024-25				10882	26215	10717	8979	6754	7092	7447	7819	8210	8619	9052								111286
5	2025-26					11426	27526	10728	9428	7092	7447	7819	8210	8621	9050	9505							116852
6	2026-27						11997	28902	11264	9899	7447	7819	8210	8621	9052	9503	9980						122694
7	2027-28							12597	30347	11827	10394	8210	8621	9052	9505	9978		10479					128829
8	2028-29								13227	31964	12418	10914	8210	8621	9052	9505	9980	10477	11003				135271
9	2029-30									13838	33457	13039	11460	8621	9052	9505	9980	10479	11003	11553			142035
10	2030-31										14592	35130	13691	12033	9052	9505	9980	10479	11003	11551	12131		149137

In Rupees

APCC (Forest Diversion & NO, FC Act)

**Cost Norms for Creation of Compensatory Afforestation with Stabilization of Soil  
Moisture Conservation (SMC)**

Annexure-11			
Cost Norms for creation of Compensatory Afforestation with Stabilization of Soil & Conservation of Moisture (1000)			
WAGE RATE Rs- 311/- PER DAY			
Sl.No	Item of Works	Preferable Period of Execution	Total Cost
0th Year (Pre-Planting Operation)			
1	Nil		0
1st Year			
2	Soil Conservation measure structures like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS as per the slope & site requirement on LS	Apr/Sept.	20,215
2nd Year			
3	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
3rd Year			
4	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
Total			32,343.0

Abstract					
Sl. No	Year	No. person days	Labour cost @ Rs. 311/- per day	Material Cost	Total cost (Rs.)
1	0th year	0.0	0.0	0.0	0.0
2	1st year	0.0	0.0	20,215.0	20,215.00
3	2nd year	0.0	0.0	3,032.00	3,032.00
4	3rd year	0.0	0.0	3,032.00	3,032.00
5	4th year	0.0	0.0	3,032.00	3,032.00
6	5th year	0.0	0.0	3,032.00	3,032.00
Total		0.00	0.00	32,343.0	32,343.0

Different types of SMC structures may be taken up as per the scope & requirements of the plantation site out of the design & specification of different structures annexed along this document.

  
 A.P.CCF (Forest Diversinn & NQ, FC Act)

# **Matrix for (SMC)**

**Matrix for (SMC)**

In Rupees

Sl. NO.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	0	20215	3032	3032	3032	3032											
1	2021-22	0	2226	3342	3510	3685	3870											35633
2	2022-23		0	22287	3509	3686	3869	4064										37415
3	2023-24			0	23401	3694	3870	4067	4267									39284
4	2024-25				0	24571	3868	4064	4265	4480								41248
5	2025-26					0	25800	4051	4267	4478	4704							43310
6	2026-27						0	27090	4464	4480	4702	4930						45475
7	2027-28							0	28443	4477	4704	4937	5186					47749
8	2028-29								0	29867	4702	4939	5184	5445				50136
9	2029-30									0	31380	4936	5186	5443	5717			52642
10	2030-31										0	32918	5183	5445	5715	6003		55274

APCCF (Forest Diversion & NO, FC Act)



## Fencing Model F-II

### Fencing for Compensatory Plantation raised outside the Forest Areas using Angle Iron & Chain Link wire mesh

Fencing Model-F-II						
Fencing for Compensatory Plantation raised outside the Forest Areas using Angle Iron & Chain Link wire mesh (250 Rmt/ Ha.)						
WAGE RATE Rs- 311/- PER DAY						
Sl. No	Items of work	Preferable Period of Execution	Man days	Wages	Material cost (Rs)	Total Cost (Rs. per Ha.)
0th Year (PPO)						
1	Earth work & (Excavation of hole) in line & sq. at a distance 3 mt. 0.40m x 0.40m x 0.40m = 0.064 x 84 = 5.376 cum @ Rs. 140/ cum = Rs. 753		2.42	752.62	0.0	752.6
2	Cement concrete (1:4:8) using 46 mm BHC metal 84 X 0.40m X 0.40m X 0.40m = 1.344 @ 3755.94/cum		0	0	5,047.4	5,047.4
3	Angle iron pole of size 50 mm X 50 mm X 6 mm of height 2.10 mt. 84 x 2.10 = 201.60 Sqmt. @ 4.50/kg/ Sqmt. = 907.20 kg @ 69.50 per kg				63,050.0	63,050.0
4	Cement concrete (1:4:8) for filling the iron angle pole using 12mm BHC Chips 84 X 0.40m X 0.40m X 0.30m = 4.032 cum @ 5486.77/cum				22,123.0	22,123.0
5	Cost of Chain link mesh using 4 mm Dia GI wire having gap size 50 mm X 50 mm 250 Rmt X 2.10 mt = 525 Sq mt @ 331/Sqmt = Rs. 1,73,775				1,73,775.0	1,73,775.0
6	Double coat painting of iron angle pole over a coat of primer using good quality enamel paint 84 x 2.10 x 0.20 = 35.28 sqmt. @ Rs 108.00/Sqmt				3,838.0	3,838.0
7	Painting of GI chain link mesh 250 x 2.10 x 2 = 1050/10 = 105 Sqmt. @ Rs. 108.00 Sqmt.				11,424.0	11,424.0
8	Transportation of Chain link mesh, Iron angle, Spraying & using of chain link mesh etc. @ 2% of the total cost				5,600.0	5,600.0
	<b>TOTAL</b>		<b>2.42</b>	<b>752.62</b>	<b>2,84,857.4</b>	<b>2,85,610.0</b>
Rate per running mt. 2,85,610/ 250= Rs. 1142/Rmt						
1st Year Maintenance						
1	No Maintenance is required.	Sept./Oct	0	0	0	0
2nd Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
3rd Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
4th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
5th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
6th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
7th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
8th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
9th Year Maintenance						
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
10th Year Maintenance						

Sl. No	Items of work	Preferable Period of Execution	Man days	Wages	Material cost (Rs)	Total Cost (Rs. per Ha.)
1	Maintenance of wire mesh fence @ 1% per running mt. cost of installation in 1st yr. 11428.1% = 1142 say Rs. 11	Sept./Oct	0	0	11000	11000

**Abstract**

Sl. No	Year	No. person days	Labour cost @ Rs. 311/- per day	Material Cost	Total cost (Rs.)
1	0th year	2.42	752.6	284857.4	285610.0
2	1st year	0.0	0.0	0.0	0.0
3	2nd year	0.0	0.0	11000.0	11000.0
4	3rd year	0.0	0.0	11000.0	11000.0
5	4th year	0.0	0.0	11000.0	11000.0
6	5th year	0.0	0.0	11000.0	11000.0
7	6th year	0.0	0.0	11000.0	11000.0
8	7th year	0.0	0.0	11000.0	11000.0
9	8th year	0.0	0.0	11000.0	11000.0
10	9th year	0.0	0.0	11000.0	11000.0
11	10th year	0.0	0.0	11000.0	11000.0
<b>Total:</b>		<b>2.42</b>	<b>752.62</b>	<b>383857.4</b>	<b>3,84,610.0</b>

  
 APCZF (Forest Diversion & NO, FC Act)

# **Matrix for Model-F-II Fencing (Angle Iron & Chain Link wire mesh)**

Matrix for Fencing Model-F- II (Iron angle with Chainlink wire mesh)

Sl. No.	Comments	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
Base Norm	285510	0	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000											
1	2021-22	355610																					419337
2	2022-23		355610																				440789
3	2023-24			355610																			462145
4	2024-25				355610																		483502
5	2025-26					355610																	504958
6	2026-27						355610																526414
7	2027-28							355610															547870
8	2028-29								355610														569326
9	2029-30									355610													590782
10	2030-31										355610												612238

In Rupees

Asst. Commr. (Forest Division & N.O. FC Act)

## Watering Model – W-II

### Watering Provision to CA Plantation

Watering Model-W-II			
Watering provision to CA Plantation			
Diesel pump set with Bore well (1 pump set + Bore well for 5 Ha Plantation), Wage rate @ Rs.311/-			
Year of Installation (0th Year)			
1	Cost of Borewell	1,50,000	
2	Cost of Diesel pump set SHP	60,000	
3	Diesel pump set & accessories like commander, Pipes, etc.	30,000	
4	Water Storage Tanks/ Flexible pipes	15,000	
		2,55,000	
Cost of Water per Plant (2,55,000/ 5000) = Rs. 51/-			51,000
Cnst of Water per Ha. = Rs. 51,000/-			
1st Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
2	Watering 1000 Plants (Nov-Mar.) @ 200 plants/MD with 7 days rotation 20 MD x 5 months = 100 MD x 311 =		31,100
		<b>Total</b>	<b>52,100</b>
2nd Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.		7,650
2	Watering 1000 Plants (April- June & Nov-Mar. - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
3rd Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.		7,650
2	Watering 1000 Plants (April- June & Nov-Mar. - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
4th Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.		7,650
2	Watering 1000 Plants (April- June & Nov-Mar. - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>
5th Year Watering			
1	Recurring expenditure i.e Diesel, Mobil, Engine Oil, etc. for pumping Water -21 x 1000 =		21,000
	Maintenance Diesel pump set etc. @ 15 % of the installation cost.		7,650
2	Watering 1000 Plants (April- June & Nov-Mar. - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x 8 months = 160 MD x 311 =		49,760
		<b>Total</b>	<b>78,410</b>

Abstract					
Sl. No.	Year	No. person days	Labour cost @ Rs. 311/- per day	Material Cost	Total cost (Rs.)
1	0th year	0	0.0	51000.0	51000.0
2	1st year	100.0	31100.0	21000.0	52100.0
3	2nd year	160	49760.0	28650.0	78410.0
4	3rd year	160	49760.0	28650.0	78410.0
5	4th year	160	49760.0	28650.0	78410.0
6	5th year	160	49760.0	28650.0	78410.0
	<b>Total:</b>	<b>740</b>	<b>230140</b>	<b>186600</b>	<b>4,16,740</b>

  
 APCCF/(Forest Diversification & NO, FC Act)

**Matrix for Watering Model –W-II (Diesel Pump set Fitted with Borewell) per Ha**

**Matrix for Watering Model-W-II (Diesel Pumpset Fitted with Borewell) per Ha**

Sl. NO.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	5100	52100	78410	78410	78410	78410											
1	2021-22	51000	54705	86439	90771	95307	100072											478294
2	2022-23		53550	57440	90761	95310	100072	105076										502209
3	2023-24			56228	60312	65799	100076	105076	110030									527321
4	2024-25				59039	63328	100064	105080	110030	115847								553688
5	2025-26					61991	66494	105067	110034	115847	121639							581372
6	2026-27						69091	69819	110030	115851	121639	127721						610441
7	2027-28							68346	73310	110836	121644	127721	134107					640964
8	2028-29							71763	76976	121628	127726	134107	140812					673012
9	2029-30								75351	80875	127709	134112	140812	147853				706662
10	2030-31									79119	84866	134094	140819	147853	155245			744996

In Rupees

ARCCF (Forest Diversion & NO, FC Act)

### **TOTAL COST OF PROJECT**

<b>S. No</b>	<b>Item of Work</b>	<b>Unit price</b>	<b>In Rupees</b>
1	Cost of Base Norm for ANR plantation @200 plants/ ha (Year 2022-2023)	100938.00 x 6.00 ha	605628.00
2	Cost of Soil Moisture Conservation (SMC) (2022-2023)	37415.00 x 6.00 ha	224490.00
3	Cost of Angle Iron & Chain Link wire mesh Fencing with 10 years maintenance @4,40,289/- per 250 rmt/ha over 1.14 Km.	440289.00 / 250 rmt x 1140 rmt	2007717.84
4	Cost of 1 no. borewell for watering (one diesel pump set fitted with borewell for 5 ha plantation) (2022-2023)	502209.00 x 1 No.	502209.00
	<b>Grand Total</b>		<b>3340044.84</b> <b>Or say</b> <b>33,40,100.00</b>

**(Rupees thirty-three lakh forty thousand one hundred) only**

### **PROVISION OF FUNDS AND FUND UTILIZATION**

**Rs. 33,40,100/-** (Rupees thirty-three lakh forty thousand one hundred) only shall be deposited by the User Agency i.e. M/s Rungta Mines Ltd on approval of the scheme to the Ad-hoc CAMPA Account and the funds will be utilized for raising of Addl. Compensatory Afforestation by the Divisional Forest Officer, Keonjhar Division on allotment by the Principal Chief Conservator of Forests, Odisha, Bhubaneswar.

  
**Divisional Forest Officer,**  
**Keonjhar Division**

## **CHAPTER- VII**

### **DETAILS OF PROPOSED MONITORING MECHANISM**

Addl. Compensatory Afforestation will be taken up in the identified site by the Range Officer, Keonjhar Range of Keonjhar Division. The Range Forest Officer, Keonjhar Range will undertake field checks of the works undertaken at the identified site and will be cross checked by the Asst. Conservator of Forests, (Affn.) and Divisional Forest Officer, Keonjhar Division. GPS co-ordinates along with other required informations of Addl. Compensatory Afforestation will be uploaded in the e-Green watch Portal of NIC, MoEF, Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedlings, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of Keonjhar and reported to the Divisional Forest Officer for necessary action. The same thing will be reported to the Regional Chief Conservator of Forests, Rourkela Circle and Chief Conservator of Forests (PP&A), O/o the Pr. Chief Conservator of Forests, Odisha, Bhubaneswar and necessary corrective measures will be followed if required so.



**Divisional Forest Officer,  
Keonjhar Division**

## CHECK LIST SERIAL NUMBER: - 14.5

### “DSS ANALYSIS CERTIFICATE”

This is to certify that DSS Analysis of land identified for CA/ ACA/ PCA and subsequent ground truthing have been done. The outcome is as mentioned below-

Sl. No.	Name of Range	Name of the Forest Block (RF/PRF/PF/DPF/Revenue Forest)	Area identified for CA/ ACA/ PCA (in ha)	Classification of identified land (in Sq. KM)						Area suitable for plantation (in Sq. KM)			Plantation model (AR/ANR)	Remarks		
				Very Dense Forest	Moderately Dense Forest	Open Forest	Non-forest	Scrub	Water	Total	Open Forest	Non-forest			Scrub	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Keonjhar	Jadipada RF under Keonjhar Range	ACA	0	0	6.00	0	0	0	6.00	6.00	0	0	6.00	ANR	@200 seedlings per ha

Divisional Forest Officer,  
Keonjhar Division.

Countersigned

Regional Chief Conservator of Forests,  
Rourkela Circle