

OFFICE OF THE DIVISIONAL FOREST OFFICER; ANGUL DIVISION: ANGUL. 5-4-24

Memo No. 2717 /DRP/2023/Dated. 4-4-24

To

The Regional Chief Conservator of Forests,
Angul Circle, Angul.

Sub: - Proposal for seeking prior approval of the Central Government under Section 2 (ii) of the Forest (Conservation) Act, 1980 for non-forestry use of 26.416 Ha (Balance 20.383 ha of forest land including 0.615 Ha SZ and 6.033 Ha SZ which was provided for already diverted forest land of 112.521Ha.) in favour of the Mahanadi Coalfields Ltd. for continuation of mining operation at Bhubaneswari OCP within Mining Lease area over 658.724 ha under Angul Forest Division in Angul District, Odisha.

Ref: - Your memo No. 711 dt. 22.02.2024.

With reference to the above cited memo No. on the captioned subject, it is to inform that the CA Scheme has been revised as per the one-time cost norm approved by the PCCF & HoFF, Odisha, Bhubaneswar vide his Office Order No. 1109/9F-(Misc)-387/2021 dt. 08.11.2021 for proposed forest land to be diverted for non-forestry use of 26.416 Ha (Balance 20.383 ha of forest land including 0.615 Ha SZ and 6.033 Ha SZ which was provided for already diverted forest land of 112.521Ha.) in favour of the Mahanadi Coalfields Ltd. for continuation of mining operation at Bhubaneswari OCP.

Hence, the compliance report received from the user agency, i.e., G.M., Jagannath area MCL, Talcher, and the revised CA Scheme prepared by the undersigned as per the one-time cost norm, in four sets, are enclosed herewith for your kind information and further necessary action.

Encl: - As above.


Divisional Forest Officer
Angul Division

Memo No. 2718 / Dated. 4-4-24

Copy forwarded to the Principal Chief Conservator of Forests, Nodal F.C Act O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to Memo No. 712 dt. 22.02.2024 of RCCF, Angul.


Divisional Forest Officer
Angul Division

Memo No. 2719 / Dated. 4-4-24

Copy forwarded to the General Manager, Jagannath Area, At/PO- Dera Colliery, Angul-759103 for information and necessary action.


Divisional Forest Officer
Angul Division

*Revise C A Scheme
on dt. 04.04.2024*

COMPENSATORY
AFFORESTATION SCHEME
OVER
63.408 HA OF REVENUE FOREST LAND
IN VILLAGE KARNAPUR IN GOBRA R.I CIRCLE UNDER
TALCHER TAHASIL
IN
IN TALCHER RANGE
UNDER
ANGUL FOREST DIVISION

**AGAINST DIVERSION OF FOREST LAND 26.416 Ha
(BALANCE 20.383 HA OF FOREST LAND INCLUDING 0.615
HA SZ AND 6.033 HA SZ WHICH WAS PROVIDED FOR
ALREADY DIVERTED FOREST LAND OF 112.521 HA.)
FOR BHUBANESWARI OCP OF MCL
IN ANGUL DISTRICT, ODISHA
(ON ONETIME COST NORM BASIS)**

Prepared by


Divisional Forest Officer
Angul Forest Division
Angul, Division

Detailed scheme for Compensatory Afforestation to be carried out over 63.408 ha in village Karnapur under Talcher Tahasil of Angul District in lieu of forest land to be diverted (26.416 Ha) for Bhubaneswari Coal Mines, by Mahanadi Coal Field, Ltd.

Bhubaneswari Coal Mines over an area of 132.904 ha has been allotted to the Mahanadi Coal Field, Ltd. Out of 132.904 ha of the forest land involved in the Bhubaneswari OCP 28 MTY, 112.521 ha of the Forest land has already been diverted vide F.No.8-18/2002-FC, dated 6th December 2004. However, the user Agency has applied for the remaining balance forest land of 26.416 ha (i.e. Balance 20.383 ha of forest land including 0.615 ha SZ and 6.033 ha SZ which was provided for already diverted forest land of 112.521 ha.) of forest land for forest clearance to the GOI, MoEF&CC.

The Compensatory Afforestation land has been identified over 63.408 Ha revenue forest land in the Karnapur Village of Gobra RI Circle Under Talcher Tahasil under Talcher Range in the Angul Forest Division.

According to the para-2 of the guideline No. 1109/9F-(Misc.)-387/2021 dt. 08.11.2021 by PCCF (N), the Compensatory Afforestation scheme has been prepared as per the "one-time cost norm" and the commencement year is 2024-25.

The joint verification conducted by the Forest and Revenue Officials suggested 500 plants per ha. Hence, the base cost norm for Compensatory Afforestation (ANR Plantation) @ 500 plants per hectare (18-month-old seedlings) as per the Guideline issued by PCCF, Odisha vide letter dt. 08.11.2021 and letter dt. 01.12.2021 has been considered. Soil & moisture conservation activities have been provided separately as per the approved cost Norm by PCCF, Odisha. Water provision of solar system with bore well (1 system for 5 ha plantation) fitted with Drip lines have also been provided. As the area is outside Notified Forest land and vulnerable to encroachment and other biotic pressures, chain link fencing has been suggested.

1. Details of degraded forest land: -

District: Angul; R.I: Gobra Tahasil: Talcher; Village: Karnapur @ 500 Nos. seedlings per Ha

Sl. No.	Tahasil	R.I Circle	Village	Khata No.	Plot No	Kissam	Area available	Remarks
1	Talcher	Gobra	Karnapur	498	1	Jungle-II	28.328 ha	Suitable for ANR Plantation
2			Karnapur	498	2	Jungle-II	19.424 Ha	
3			Karnapur	500	8	Jungle-II	15.656 Ha	
							63.408 Ha	

The village maps showing the land details for the proposed compensatory afforestation as well as the G.P.S coordinates of survey stations of the Compensatory Afforestation area are shown in as **Annexure-(A)**. A joint verification report of the degraded revenue forest land by the Forest and Revenue authorities is enclosed as **Annexure-(B)**. Key Plan of the Compensatory Afforestation site shown on the toposheet is enclosed as **Annexure-(C)**. As per the notified guidelines issued by the Ministry, provision has been made to plant @1000 plants per Ha of diverted land i.e. 26.416 Ha. However, Para 2.8 of Chapter-2 of Handbook of FC Act guidelines issued by the Ministry has been deleted and further, it has been clarified by the Regional Empowered Committee in its 77th REC meeting of IRO Bhubaneswar dtd. 19.10.2022 that it is

decided to consider the cutoff date of deletion of provision under Para 2.8(ii) of handbook of FC Act, 1980 as 16.10.2019 for all the proposals.

In view of the above clarification, the CA on degraded revenue forest land has been allocated in more than double to the extent of proposed forest land to be diverted i.e. 63.408 Ha. So, instead of 26416 plants (@1000*26.416) that are supposed to be planted, now 31704 plants (@500*63.408ha.) will be planted over 63.408 ha. of degraded forest land as per the CA scheme. Accordingly, area for CA has been provided in 63.408 ha @ 500 plants per hectare for total 31704 plants.

2. Description of Area

I. Whether the site selected for Compensatory Afforestation is a land bank or not: This identified non-forest area is under the control of the Revenue Department and classified as 'Gramya Jungle and Jungle-II'. It is not a land bank.

II. If the CA site is other than the land bank, reasons be given: No land bank has been established yet for this purpose.

III. In the case of a non-forest area identified for CA, then what is the distance of the CA site from the adjoining forest boundary: NA

IV. Soil type: Topsoil is sandy loam having good retention capacity of water. Besides, adequate rooted waste of Sal and associates like Asan, Kuruma, Bija, Kasi, Moi, Dhaura, etc. is visible. [Soil Map]

V. Topography: [Add topo map]

- a) Hilly/Undulating/Plain: The Compensatory Afforestation sites are hilly and undulating.
- b) Slope: Steep/Medium/Gentle: The sites selected for Compensatory Afforestation have medium to gentle slopes. [Slope Map]

VI. Whether the area bears any rootstock of vegetation: The sites selected for Compensatory Afforestation are either barren or with weed growth like *Lantana*, *Eupatorium*, *Woodfordia fruticosa*, *Combretum decandrum*. Rootstock of any principal species like Sal is not available.

3. Plantation Model: -

Since the area in Karnapur village is suitable for ANR plantation, 500 plants per hectare will be raised over 63.408 ha with Maintenance of plantation for 10 years.

4. Technical details: Technical details of the Compensatory Afforestation Scheme are as follows:

a) General Details:

Survey & Demarcation of Boundary:

The identified area has been surveyed by DGPS and the area was demarcated with RCC pillars of size 1.75 meters x 30 cm x 30 cm. This work has been done at Project cost by project proponent.

Fencing:

To protect the plantation from grazing and other biotic interference, it will be provided with a Chain Link wire mesh fence, the cost for which will be deposited by the User Agency. Chain Link wire mesh fencing will be done around the entire patch as per the cost norm provided by the PCCF, Odisha vide Guideline dt. 08.11.2021 and dt. 01.12.2021. Total length of the fencing will be 3300 meters (approx.).

Planting and post-planting:

b) ANR plantation shall be taken up with 500 plants per hectare (18 months old seedlings) at a spacing of 2.5 m x 2.5 m. Alignment and pit marking should be done carefully in slopes so that the horizontal distance between plants in a row remains 2.5 mtrs and not the distance measured along the slope. The size of the pits will be 45 cm X 45 cm X 45 cm. All post-planting measures like casualty replacement, soil working, manuring, fire protection, etc. will be undertaken. The plantation area should be divided into 4-ha plots. These plots should be demarcated in the field before digging pits so that the demarcating line does not cross a plantation row. The cost norm of the proposed plantation is **Annexure-(D)**.

While taking up plantation, the following points shall be taken up for consideration: -

- Care is to be taken to raise healthy plantable seedlings of a minimum of 60 cm in height. 10% extra seedlings are to be raised for casualty replacement.
 - Pitting shall invariably be done during November-February i.e., before the onset of monsoon. If possible, the soil of the upper portion and lower portion of the pit should be placed separately in a specific direction so that while planting the pits will be filled with topsoil first.
 - Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and planting should never be delayed.
 - A basal dose of NPK and Chlorpyrifos dust per plant should be applied at the time of planting carefully by mixing with topsoil so that the roots of seedlings do not come in direct contact with fertilizer.
 - In case of any mortality of planted seedlings, they should be replaced with good seedlings as soon as possible for a better success rate.
 - Complete weeding in proper time will be done. Strip weeding will not be permitted.
 - Soil-working and application of 2nd dose fertilizer of NPK should be done in time.
 - Since the area is provided with a chain link fence, the watch & ward will be easier and the watchers may be engaged in weeding in problematic areas along with the watch & ward.
- c) **Species:** Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants can survive. Plantation of fruit and NTFP species plays a great role since economic species have little value for the local people. Considering the topography, soil, and moisture availability of the plantation area, the following species will be planted.

Sl.No.	Name of species	Common name
1	<i>Azadirachta indica</i>	Neem
2	<i>Lannea coromandelica</i>	Mai
3	<i>Dalbergiasissoo</i>	Sissoo
4	<i>Artocarpus heterophyllus</i>	Jack fruit
5	<i>Cassia siamea</i>	Chakunda
6	<i>Derris indica</i>	Karanja
7	<i>Albizia lebbek</i>	Sirisha
8	<i>Pterocarpus marsupium</i>	Bija

9	<i>Terminalia tomentosa</i>	Asan
10	<i>Anogeissus latifolia</i>	Dhaura
11	<i>Adina cordifolia</i>	Kurum
12	<i>Dendrocalamus strictus</i>	Bamboo
13	<i>Terminalia chebula</i>	Harida
14	<i>Emblica officinalis</i>	Amla
15	<i>Terminalia bellerica</i>	Bahada
16	<i>Gmelina arborea</i>	Gambhari
17	<i>Mangifera indica</i>	Mango
18	<i>Acasia catechu</i>	Khair

d) Soil and Moisture Conservation Works: -

Since most of the areas are hilly and undulating, soil conservation measure structures like the staggered trench, percolation pit, contour trench, graded earthen bund, LBCD, wire mesh, LBCD, Subsurface Dyke and Water Harvesting structures will be constructed. The cost norm of SMC measures for all three patches together is furnished as **Annexure-(E)**.

e) Protection of the plantation: Chain link mesh fence will be provided all along the periphery of the plantation in three patches. Few watchers will also be engaged for the protection of the plantation. The cost norm of the Chain link mesh fence is furnished as **Annexure-(F)**.

f) Watering provision of CA plantation: Watering of the plantation will be carried out by solar Borewell fitted with a drip system (1 system for 5 ha plantation). The cost norm is furnished as **Annexure-(G)**.

5. Proposed Monitoring Mechanism: The scheme shall be executed by the Divisional Forest Officer, Angul Division with his staff and all prescribed records are to be maintained. In addition to internal monitoring by Forest Officers of the State Government, a Monitoring Committee under item no. 3.4 (iii) of consolidated guidelines under F.C Act 1980 issued by MoEF, shall be established with a nominee of the Central Government to oversee that the stipulations, including those about Compensatory Afforestation, are carried out.

6. Entry Point Activities: To ensure the support of local communities, 15% of the plantation cost will be utilized for entry point activities such as solar light, renovation of ponds, skill development, alternate livelihood promotion, drinking water facilities, etc. among other activities.

7. Total cost of the project: The total cost of the project is **Rs. 2,61,35,800.00/- (Two Crore Sixty One Lakh Thirty-Five Thousand and Eight Hundred)** only which shall be payable by the user agency as per demand of the D.F.O, Angul Division.


Divisional Forest Officer
Angul Division

Compensatory Afforestation Scheme for plantation of 31704 Nos. seedling over an area of 63.408 Ha. of Revenue Forest Land in Plot No. 1&2 of Khata No. 498 and Plot no 8 of Khata no. 500 of Karnapur Village in Gobra R.I Circle of Talcher Tahasil.

ABSTRACT

Sl. No.	Component	Norm (Rate per Ha)	Unit	Area (in Ha)	Total (Rs.)
1	ANR @ 500 Plant per ha.	157554.00	Ha	63.408	9,990,184.03
2	Watering, Solar Borewell fitted with Drip System (One system per 5 ha - hence, in total 13 systems)	234221.00	Ha	63.408	3,044,873.00
3	SMC	41248.00	Ha	63.408	2,615,453.18
4	Fencing (Iron angle with Chain link wire mesh) for a total length of 3300 Metre (approx):- 485432*(3300/250) = 64,07,702.40	485432.00	Ha	Length- 3300 Metre	6,407,702.40
5	15% of entry point activity [(1) + (2) + (3) + (4)]	137768.25	Ha		3,308,731.89
6	5% of Monitoring evaluation learning documentation and other contingency ((2) + (3) + (4) + (5))	44933.46			768,838.02
	Grand Total (per ha.)	1101156.71			26135782.53

Or Say

Rs. 2,61,35,800.00/- (Two Crores Sixty One Lakh Thirty Five Thousand Eight Hundred) Only


Divisional Forest Officer
Angul Division

DGPS SURVEYED MAP SHOWING COMPENSATORY AFFORESTATION AREA AT MOUZA- KARNAPUR, SHEET NO.- 1, UNDER ANGUL FOREST DIVISION IN RESPECT TO BHUBANESWARI OCP UNDER M/s. MAHANADI COALFIELDS LIMITED IN ANGUL DIST.

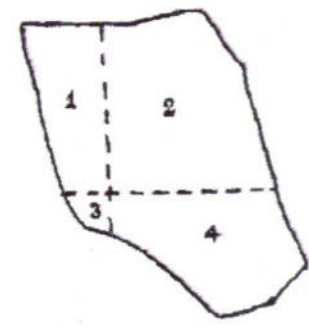
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KARNAPUR, SHEET No.1
Thana - Colliery No. 39

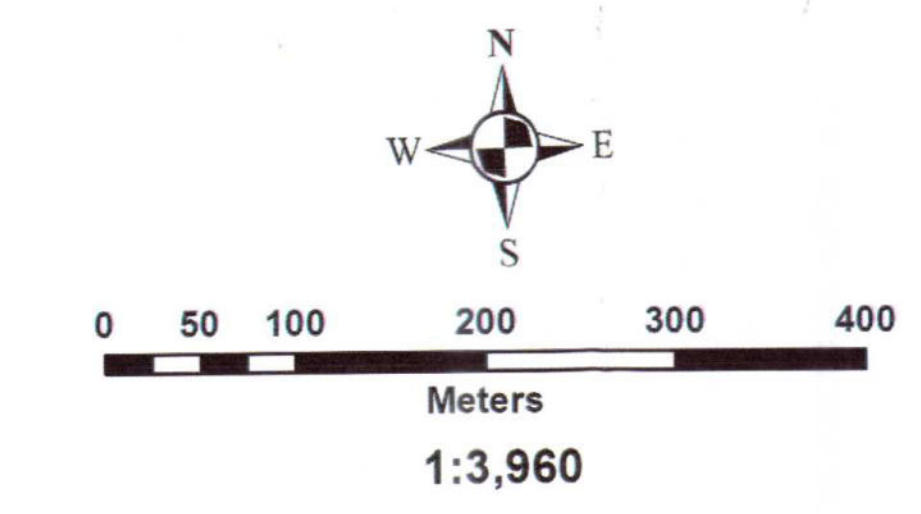
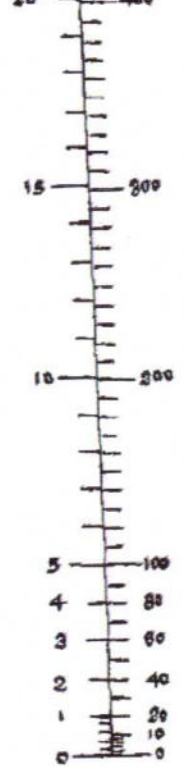
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Year 1985-86

Index to Sheets

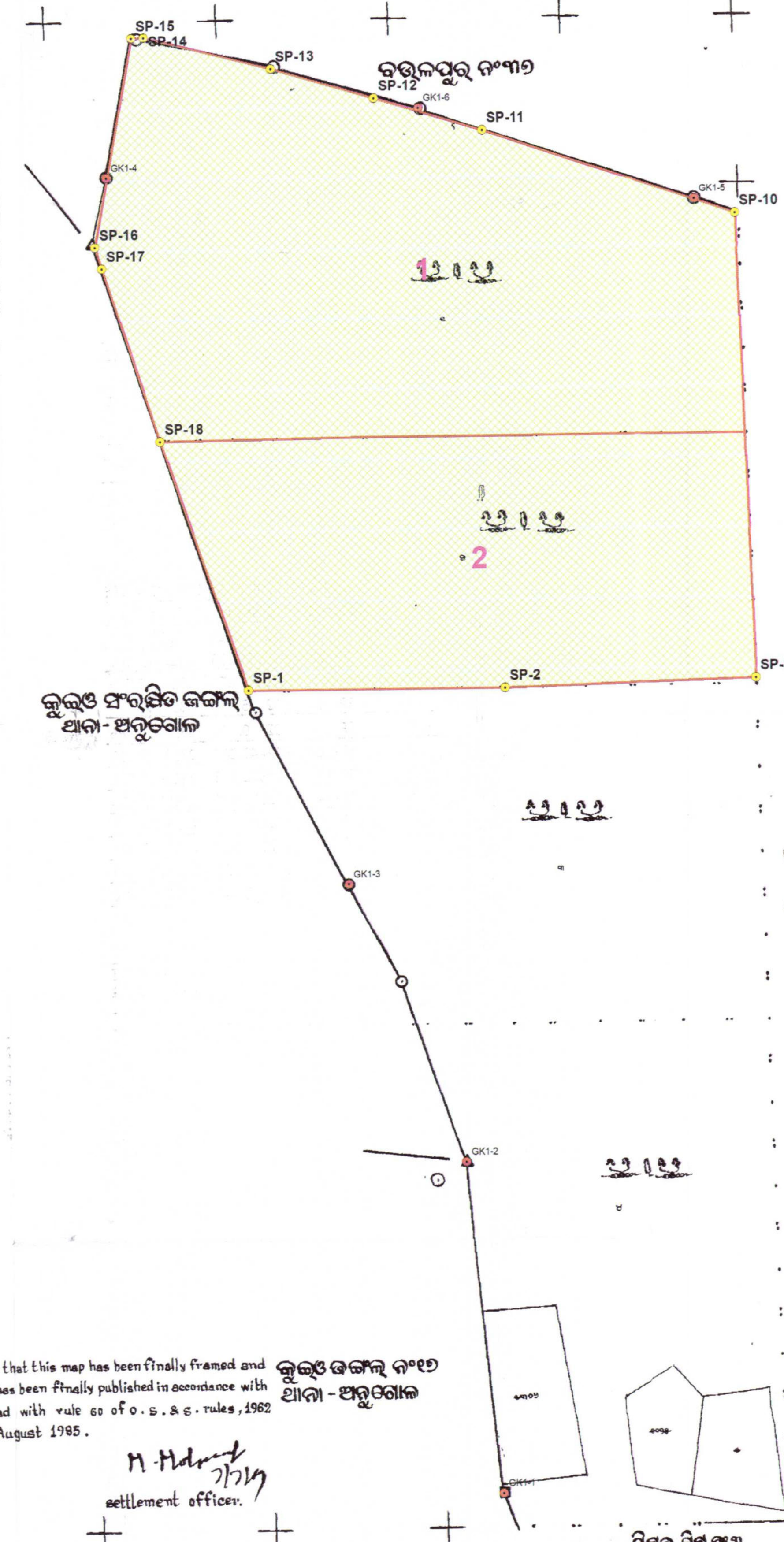


Scale 16 inches to 1 mile
Scale of CHAINS METRES



Legend

- DGPS SURVEYED C.A. BOUNDARY POINTS
- DGPS SURVEYED GEO-REFERENCED POINTS
- COMPENSATORY AFFORESTATION PATCH



DGPS SURVEYED GEO-REFERENCED CO-ORDINATES OF POINTS

Sl. No.	Point_ID	Easting	Northing	Longitude	Latitude
1	GK1-1	302515.623	2311782.575	85°06'04.99237"E	20°53'44.86820"N
2	GK1-2	302491.005	2312178.803	85°06'03.97857"E	20°53'57.74041"N
3	GK1-3	302367.867	2312514.937	85°05'59.58075"E	20°54'08.62102"N
4	GK1-4	302121.407	2313369.271	85°05'50.70348"E	20°54'36.30110"N
5	GK1-5	302818.507	2313311.636	85°06'14.84622"E	20°54'34.69554"N
6	GK1-6	302495.781	2313435.080	85°06'03.62962"E	20°54'38.58474"N

DGPS SURVEYED CO-ORDINATES OF BOUNDARY PILLAR

Sl. No.	Point_ID	Easting	Northing	Longitude	Latitude
1	SP-1	302260.029	2312751.747	85°05'55.75279"E	20°54'16.27838"N
2	SP-2	302564.635	2312740.306	85°06'06.29623"E	20°54'16.02362"N
3	SP-3	302864.277	2312737.586	85°06'16.66437"E	20°54'16.05030"N
4	SP-10	302865.765	2313292.053	85°06'16.48931"E	20°54'34.07705"N
5	SP-11	302570.102	2313404.966	85°06'06.21339"E	20°54'37.63431"N
6	SP-12	302443.290	2313449.003	85°06'01.80774"E	20°54'39.01721"N
7	SP-13	302322.643	2313489.781	85°05'57.61672"E	20°54'40.29647"N
8	SP-14	302173.693	2313533.876	85°05'52.44504"E	20°54'41.67266"N
9	SP-15	302159.147	2313534.145	85°05'51.94162"E	20°54'41.67580"N
10	SP-16	302103.556	2313287.044	85°05'50.11959"E	20°54'33.62096"N
11	SP-17	302110.681	2313260.949	85°05'50.37680"E	20°54'32.77533"N
12	SP-18	302169.844	2313051.961	85°05'52.50950"E	20°54'26.00381"N

C.A. AREA STATISTICS

Sl. No.	MOUZA	PLOT No	KISAM	ALLOTTED AREA_Ac	ALLOTTED AREA_Ha	MAP AREA_Ac	MAP AREA_Ha
1	KARNAPUR SH-1	1	JUNGLE-II	70	28.328	69.209	28.008
2		2	JUNGLE-II	48	19.424	47.883	19.377

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ଆରାମେଡ଼...
ଦୋସାମାନାଞ୍ଜ...
ତ୍ରୟାମାନାଞ୍ଜ...

certified that this map has been finally framed and a copy of it has been finally published in accordance with rule 29 read with rule 60 of O.S. & S. rules, 1962 on 26th August 1985.

M. Madan
Settlement officer.

Project Environment Officer
Bhubaneswari OCP
Jagannath Area, MCL

Manager (Survey)
MCL, Bhubaneswari OCP

Project Officer
Bhubaneswari OCP

G.M.
J.A.

Revenue Inspector
Gobara

Revenue Supervisor
Talcher Tahasil

TAHASILDAR
TALCHER

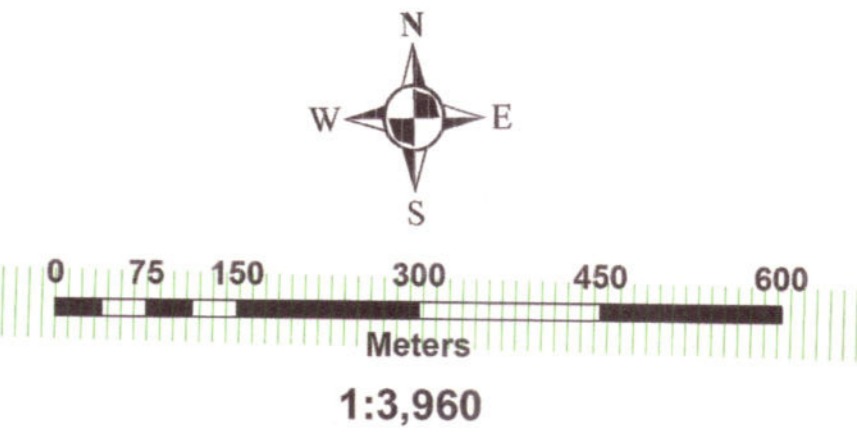
Forest Section
Dera Substation

Forest Range Officer
Talcher Range



ODISHA SPACE APPLICATIONS CENTRE
(Deptt. of Science & Technology, Govt. of Odisha)
45/48 (part), Jayadev Vihar
Bhubaneswar

DGPS SURVEYED MAP SHOWING COMPENSATORY AFFORESTATION AREA AT MOUZA- KARNAPUR, SHEET NO.- 2, UNDER ANGUL FOREST DIVISION IN RESPECT TO BHUBANESWARI OCP UNDER M/s. MAHANADI COALFIELDS LIMITED IN ANGUL DIST.



Legend

- DGPS SURVEYED C.A. BOUNDARY POINTS
- DGPS SURVEYED GEO-REFERENCED POINTS
- COMPENSATORY AFFORESTATION PATCH

DGPS SURVEYED GEO-REFERENCED CO-ORDINATES OF POINTS

Sl.No.	Point_ID	Easting	Northing	Longitude	Latitude
1	GK2-1	305079.674	2311825.545	85°07'33.68171"E	20°53'47.24441"N
2	GK2-2	304874.756	2311790.667	85°07'26.60634"E	20°53'46.03268"N
3	GK2-3	304290.121	2311802.548	85°07'06.37519"E	20°53'46.19659"N
4	GK2-4	303800.984	2311977.957	85°06'49.38151"E	20°53'51.71272"N
5	GK2-5	304132.822	2312991.952	85°07'00.45053"E	20°54'24.80543"N
6	GK2-6	303975.179	2313071.543	85°06'54.96392"E	20°54'27.33283"N

DGPS SURVEYED CO-ORDINATES OF BOUNDARY POINTS

Sl.No.	Point_ID	Easting	Northing	Longitude	Latitude
1	SP-3	302864.277	2312737.586	85°06'16.66437"E	20°54'16.05030"N
2	SP-4	303160.952	2312729.861	85°06'26.93193"E	20°54'15.91297"N
3	SP-5	303165.693	2313002.611	85°06'26.98469"E	20°54'24.78212"N
4	SP-6	303162.187	2313230.910	85°06'26.77022"E	20°54'32.20295"N
5	SP-7	303072.767	2313220.297	85°06'23.68071"E	20°54'31.82363"N
6	SP-8	302954.039	2313261.342	85°06'19.55606"E	20°54'33.11248"N
7	SP-9	302915.977	2313279.318	85°06'18.23180"E	20°54'33.68228"N
8	SP-10	302865.765	2313292.053	85°06'16.48931"E	20°54'34.07705"N

C.A AREA STATISTICS

Sl.No.	MOUZA	PLOT_NO	KISAM	ALLOTTED AREA_Ac.	ALLOTTED AREA_Ha.	MAP AREA_Ac.	MAP AREA_Ha.
1	KARNAPUR SH-2	8	JUNGLE	37	14.973	38.688	15.656

Revenue Inspector: *[Signature]*

 Revenue Supervisor: *[Signature]*

 Tahasildar: *[Signature]*

 Forest Range Officer: *[Signature]*

ODISHA SPACE APPLICATIONS CENTRE
 (Dept. of Science & Technology, Govt. of Odisha)
 45/48 (part), Jayadev Vihar
 Bhubaneswar

Disclaimer :DGPS Survey has been carried out on the Boundary Pillars/ Points as shown by the joint survey team on the ground.

Project Environment Officer: *[Signature]*

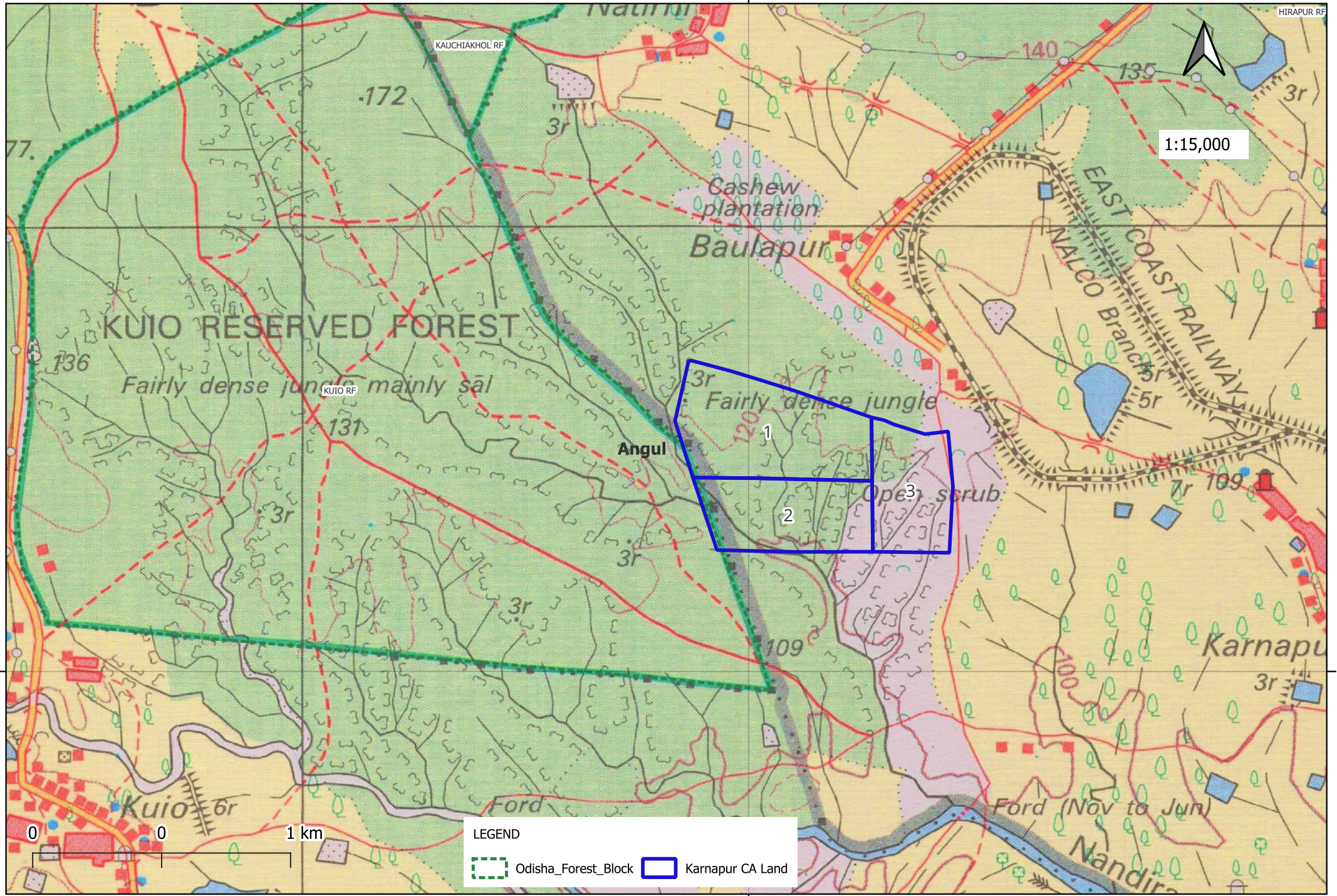
 Manager (Survey): *[Signature]*

 Project Officer: *[Signature]*

Divisional Forest Officer
 Angul, Division

Topo Sheet Map of Karnapur CA Land

85.10



1:15,000

LEGEND

-  Odisha_Forest_Block
-  Karnapur CA Land

85.10

20.90

20.90

Satellite Map of Karnapur CA Land

85.10

HIRAPUR RF



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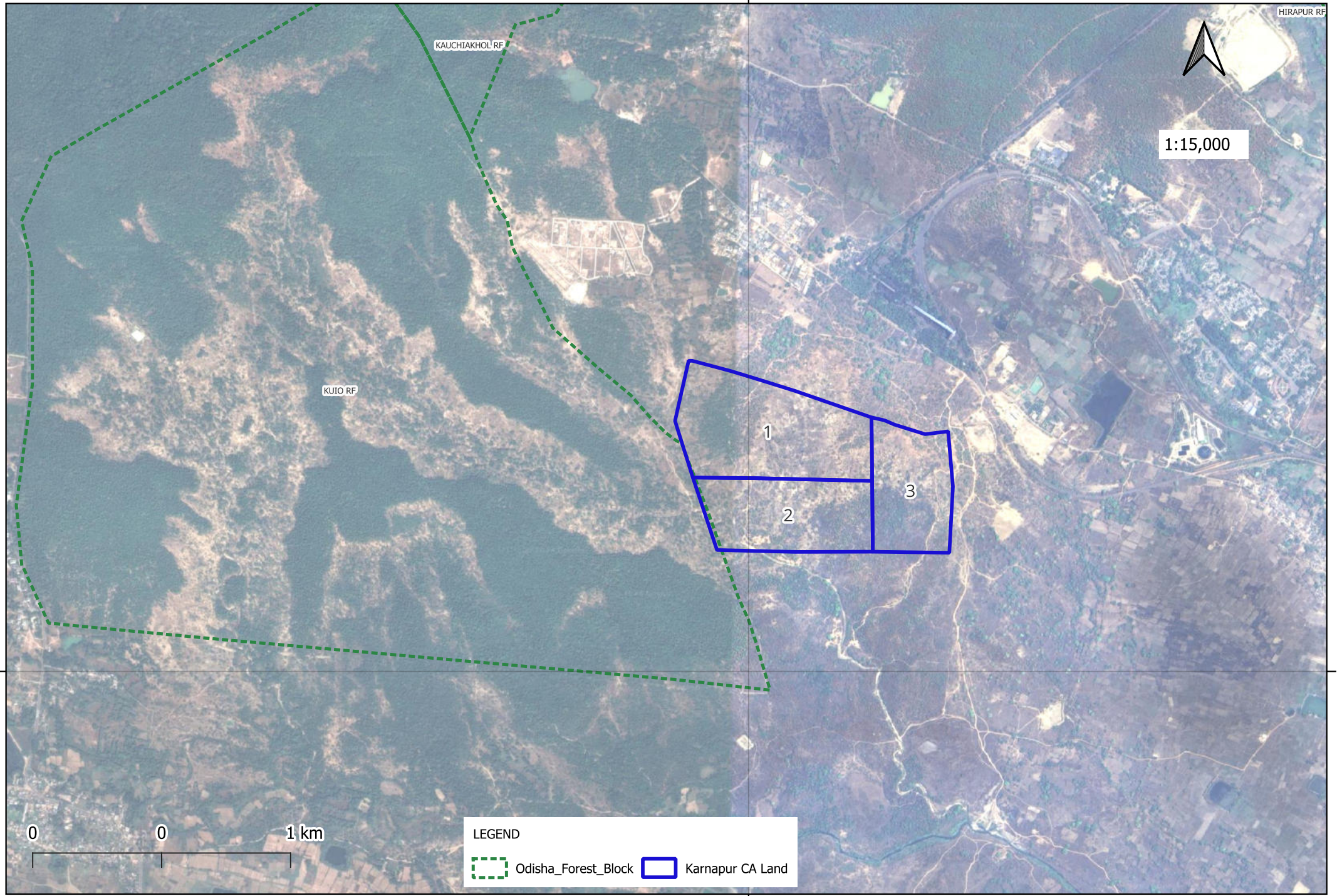
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LEGEND

-  Odisha_Forest_Block
-  Karnapur CA Land

85.10



FCM Map of Karnapur CA Land

85.10

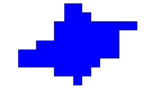
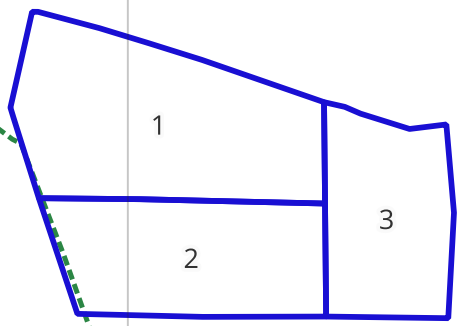
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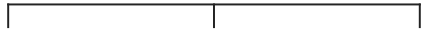
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20.90

20.90

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LEGEND

-  Odisha_Forest_Block
-  Karnapur CA Land

-  VDF
-  MDF
-  OF
-  SCRUB
-  WATER

85.10