

**DGPS Survey Report of Proposed Compensatory  
Afforestation (CA) Land for Dep 4 NMDC-CMDC. In  
Division - Balrampur, Range – Ramanujganj, State –  
C.G. area of 155.00 Hectares in district Balrampur,  
Chhattisgarh.**

**M/s NMDC-CMDC Limited**

**January 2025**

**DGPS SURVEY AND GIS MAPPING DONE BY:  
NMDC-CMDC Ltd, Raipur, C.G**

## Table of Contents

### Contents

1. Introduction and Background .....	3
1.1 Background .....	3
2. Scope of Work .....	4
3. Brief description of the technical approach.....	5
3.1 Establishment of Temporary Bench marks (TBM) .....	5
3.2 Field Panchnama given by Forest Staff .....	5
3.2.1 PF-971, Area-65 Hectares .....	5
3.2.2 PF-3410, Area-20 Hectares .....	7
3.2.3 PF-3464, Area-30 Hectares .....	8
3.2.4 PF-3489, Area-40 Hectares .....	9
3.3 Specification of DGPS Equipment .....	10
3.4 Annexure – 1: Summary of Forest CA Land.....	12
3.4.1 Total Forest CA Land Area. ....	12
3.5 Annexure -2: DGPS Coordinates.....	13
3.5.1 PF 971 Boundary Point Coordinates. ....	13
3.5.2 PF 3464 Boundary Point Coordinates.....	15
3.5.3 PF 3489 Boundary Point Coordinates.....	16
3.5.4 PF 3410 Boundary Point Coordinates.....	17
3.6 Annexure-3: Geo-referenced Map Showing Proposed Area.....	18
3.7 Annexure-4: Geo-referenced SOI Toposheet Showing Proposed Area .....	19
3.8 Annexure-5: Geo-referenced Map Showing Proposed Area .....	20
3.9 Annexure-6: Geo-referenced SOI Toposheet Showing Proposed Area .....	21
3.10 Annexure-7: Geo-referenced Map Showing Proposed Area .....	22
3.11 Annexure-8: Geo-referenced SOI Toposheet Showing Proposed Area .....	23
3.12 Annexure-9: Geo-referenced Map Showing Proposed Area .....	24
3.13 Annexure-10: Geo-referenced SOI Toposheet Showing Proposed Area .....	25
3.14 Annexure-11: PF-971 Field Survey Photographs .....	26
3.15 Annexure-12: PF- 3464 Field Survey Photographs .....	27
3.16 Annexure-13: PF-3489 Field Survey Photographs .....	28
3.17 Annexure-14: PF-3410 Field Survey Photographs .....	29

## 1. Introduction and Background

### 1.1

#### Background

The Deposit-4 Mining lease is proposed to be operated by a Joint Venture company of National Mineral Development Corporation Ltd. (NMDC) and Chhattisgarh Mineral Development Company Ltd. (CMDC).

NATIONAL MINERAL DEVELOPMENT CORPORATION Ltd. (NMDC), incorporated in 1958 as a Government of India fully owned public enterprise. NMDC is under the administrative control of the Ministry of Steel, Government of India.

The State's Chhattisgarh Mineral Development Corporation Ltd. (CMDC), singly or in joint venture, undertakes scientific exploration, commercial exploitation and viable trading of minerals in the Chhattisgarh.

The Deposit-4 mining lease (ML) area proposed for forest diversion is around 570.10 Ha and the forest area outside mining lease (OML) area proposed for infrastructure and mineral processing facilities, is approximately 112.169 Ha.

As per the latest MoEF guidelines for Compensatory Afforestation, the user agency being a Central Government Public Sector Undertaking, **the Compensatory Afforestation may be considered on degraded forest land which is twice in extent to the area proposed to be diverted**

**With the assistance from the CG Government Forest Department, office of APCCF (Land Management), the 155 Ha Degraded Forest land for Compensatory Afforestation has been identified in Balrampur** and NMDC-CMDC Limited (NCL) carried out the DGPS survey of identified double-degraded forest land patches in Ramanujganj range of Balrampur forest division.

## 2. Scope of Work

1. Establishment of a one base station for DGPS.
2. Fixation of boundary point along the corridor of the proposed CA land area by DGPS (Boundary point fixed at every corner and turning point).
3. Data processing and interpretation: -
  - a. Geo-referencing of SOI Toposheet map (1:50000)
  - b. Geo-referencing of satellite imagery and Forest Stock map (1:15000 scale)
  - c. Creation of proposed CA land boundary vector map using the DGPS survey data.
  - d. Superimposition of CA land polygon layer on Georeferenced Forest map, SOI Toposheet, and Satellite imagery.
  - e. Computation of the area proposed for CA and preparation of map layouts showing the CA land boundary.
  - f. Preparation of DGPS report, delivery of CA land patches in KML and Shape file formats.
4. Printing of the DGPS Survey report and Georeferenced maps ( Forest Stock map, Satellite imagery map, SOI Toposheet and Treatment maps).

### 3. Brief description of the technical approach

The modern survey technique using Differential Global Positioning System (DGPS) with Georeferenced high resolution satellite image bring efficacy in survey in shorter time span compared to old method of survey and record preparation. High-resolution space-borne remote sensing image data show a high level of detail and provide many opportunities to be used as base for Cadastral/Forest Compartment map generation.

The combination of GIS and GPS activities play a crucial role in developing the survey of the forest boundary points and making forest Cadastral/Forest Compartment maps. Area, length other measures in the GIS numerical database are considerably easy to compute and correlate with already available data with line department.

#### 3.1 Establishment of Temporary Bench marks (TBM)

The coordinate of the TBM is given below:

S.No	Code	Northing (m)	Easting (m)	Ellipsoid Height (RL)
1	TBM-1	2639599.867	754423.714	482.289
2	TBM-2	2638948.274	750656.849	460.967
3	TBM-3	2631366.42	766630.92	425.911
4	TBM-4	2625765.866	765873.679	434.327

#### 3.2 Field Panchnama given by Forest Staff

##### 3.2.1 PF-971, Area-65 Hectares

पंजीनामा

दिनांक  
22/1/2025

आज दिनांक 22/01/2025 को वन विभाग क्षेत्रीय कार्यालय एवं एच.एम.टी.सी - सी.एम.जी.सी. लिमिटेड के साथ संयुक्त रूप से सर्वे किया गया। वीह वगारा लक्षित वगारा जीवित राधानुयोजन के लक्ष वर्कप्लान P-971 का क्रमण कर वृक्षारोपण क्षेत्र हेतु स्थल का DGPS सर्वेक्षण कर उपयुक्त क्षेत्र में शेष क्षेत्र का रोपण हेतु सर्वे किया गया जिसका विवरण निम्नानुसार है।

क्र.	लक्ष क्रं०	कुल रकबा	वृक्षारोपण हेतु उपयुक्त रकबा	टिप्पणी
1.	P-971	330.241 हे.	65.0 हे.	वृक्षारोपण हेतु उपयुक्त है।

उपरोक्त जानकारी मौला सहायक लक DGPS की सहायता से सुनारा GPT को आधार मानकर सर्वेक्षण के माध्यम से किया गया है। जो सत्य है।  
जिसका अन्त्य 0.4 हे. कर है।

- |                        |               |
|------------------------|---------------|
| 1) रामकेशव -           | रामकेशव       |
| 2) मोतीलाल सिंह -      | मोती लाल सिंह |
| 3) प्रभुलाल सिंह -     | प्रभुलाल सिंह |
| 4) गुरदास प्रवीणपुरी - | गुरदास        |

Syed Kamran

परिसर  
22/01/2025  
अध्यापक

3.2.2 PF-3410, Area-20 Hectares

पंचनामा

आज दिनांक 23/01/2025 को वन विभाग  
 क्षेत्रीय कर्मचारी एवं एन.एम.डी.सी. एम.डी.  
 सी. विभिन्न के साथ संयुक्त रूप से सर्वे किया  
 गया वी२-मिठियाही सर्किल-वनकूपर परिवेग  
 रामानुजगंज के कक्षा क्रमांक पी० 34-10 का भूमण  
 कर वृक्षारोपण क्षेत्र हेतु स्थान का डी.जी.पी  
 एस सर्वेक्षण का क्षेत्र में वृक्षारोपण हेतु सर्वे  
 किया गया। जिसका विवरण निम्न अनुसार है।

क्र.	कक्षा क्रमांक	कुल रकबा	वृक्षारोपण हेतु रकबा
1.	पी.3410	278.555 हे.	20.000 हे.

उपरोक्त जानकारीयों का भौका सत्यापन  
 कर डी.जी.पी.एस. की सहायता से एवं  
 मुनरा, सी.पी.ए. को आधार मानकर  
 सर्वेक्षण के माध्यम से की किया गया।  
 जो कि सत्य है जिसका धनत्व 0.4 से  
 कम है।

- ① मानुपताप सिंह - मानुपताप सिंह
- ② जसप्रकाश यादव - जसप्रकाश
- ③ बोधन यादव - बोधन
- ④ मैत्रीलाल लखन

पंचनामा

पं.नामा

दिनांक  
22/01/2025

आज दिनांक 22/01/2025 को वन विभाग क्षेत्रीय कर्मचारी एन. एन. एम. डी. सी. - सी. एम. डी. सी. लिमिटेड के साथ खपुस्त रूप से सर्वे किया गया नौट शही सरफिल महावीरगंज परिक्षेत्र रामानुजगंज के कुल क्वांट P-3464 का भूमण कर वृक्षरोपण होए हेतु मस्थल का JPRS सर्वेक्षण कर युक्त दोस मे शेषोक्त का रोपण हेतु सर्वे किया गया जिलका निबरण निम्ननुसार है -

क्र.	कृ.क्र.	कुल रकबा	वृक्षरोपण हेतु उपयुक्त रकबा	रिमाक
1.	P-3464	358.15 हे.	30.1 हे.	वृक्षरोपण हेतु उपयुक्त है।

उपरोक्त जानकारी मौका समाप्त कर JPRS की सहायता रूब मुनारा CPT को आधार मान कर सर्वेक्षण के माध्यम से तैयार की गयी है जो की सत्य है।

- 1) वीरामन - कुदरुवाश
- 2) विस्माथ - विष्काथ
- 3) मुनायम - मुला राम
- 4) उपेन्द्र - उपेन्द्र

दिनांक  
22/01/2025

सर्वेक्षक  
Munna

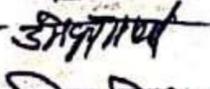
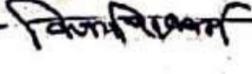
पंचनामा

दिनांक  
23/01/2025

आज दिनांक 23/01/2025 को वन विभाग क्षेत्रीय क्रमवारी संख्या स्प. एम. डी. सी. . सी. स्प. डी. सी. लिमिटेड के साथ समुक्त रूप से सर्वे किया गया बीट नंकी उत्तर विजयनगर सरकिल विजयनगर परिशेत्र रामानुजगंज के कृषि क्लमाक P-3489 का भूमण्डल वृक्षारोपण क्षेत्र हेतु भाष्यल का DAPs सर्वेक्षण कर युक्त क्षेत्र में शेषक्षेत्र का रोपण हेतु सर्वे किया गया जिसका विवरण निम्ननुसार है -

क्र०	कृषि क्र०	कुल रकबा	वृक्षारोपण हेतु उपयुक्त रकबा	रिमाई
1.	P-3489	150.500 हे०	40.000 हे०	वृक्षारोपण हेतु उपयुक्त क्षेत्र

उपरोक्त प्लानवारी मौजा समापन कर DAPs की सहायता से रूब मुनाडा EPA की आधार मान कर सर्वेक्षण के माध्यम से तैयार की गयी है जो की सत्य है।  
जिसका घनत्व 0.4 से कम है।

- 1) पवन गुप्ता -   
2) उमेश यादव -   
3) विजय विशुक्ती - 

सर्वेक्षक  

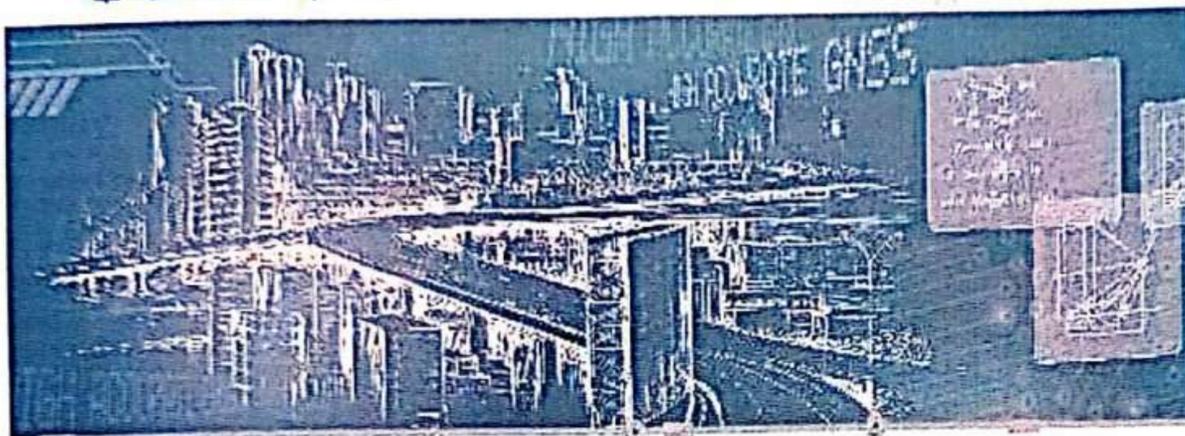

  
सुबोध विजयनगर

### 3.3 Specification of DGPS Equipment

NMDC deployed the most advanced and hi-precision devices to carry out the DGPS survey. The DGPS performance specifications are given below. The corresponding fact sheets are placed below for ready reference.

# COMNAV

## T300 GNSS Receiver



### Features

- Ultra small
- Super light
- Many user-friendly conveniences built in
- GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2
- Low power consumption
- Support long baseline E-RTK

### RTK robust enough for challenging environments, in a device that is light and easy to carry

With decades of experience in the surveying GNSS receiver, the T300 is a product which combines lots of market proved advantages together. It can track all the working GNSS constellations. By using ComNav's unique QUAN™ algorithm technology, it can function in RTK mode with all the GNSS constellations or by using any single GNSS constellation such as GLONASS or BeiDou. The strong anti-interference ability of the receiver makes it possible to work in any environment.

### Design driven to improve user experience

Our R&D people are always thinking about how to improve the physical experience of users and workflow in the field. With this in mind, the T300 integrates a cutting edge GNSS board, Bluetooth®, UHF (Rx&Tx) into a compact board. Smart design makes the T300 the lightest and smallest (volume) receiver in the world.

### Hot swap battery design

Extending the field working time is also a passion for our R&D people. They do lots of tests and analysis to reduce the power consumption, and make the whole system work more efficiently. In parallel, they've designed in the capability to hot swap the battery source. When the warning sounds and LED flashes, put your second battery in place. Then recharge the first while you keep working.

### Consumer grade batteries... always available

Losing power in the field is significantly inconvenient for users, as the batteries for GNSS receivers are often unusual types and not readily available. Once again our R&D people developed a solution so that the T300 runs on normal consumer batteries.

## Signal Tracking

- 256 channels with simultaneously tracked satellite signals
- GPS: L1 C/A, L1 C, L2 P, L5
- BeiDou: B1, B2, B3
- GLONASS: L1, L2
- SBAS: WAAS, EGNOS, MSAS, GAGAN

## Data Format

- Correction data I/O:
  - RTCM 2.x, 3.x, CMR (GPS only), CMR+ (GPS only)
- Position data output:
  - ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST, PJK, PTNL
  - ComNav Binary update to 20 Hz

## Performance Specifications

- Cold start: <50 s
- Warm start: <30 s
- Hot start: <15 s
- Initialization time: <10 s
- Signal re-acquisition: <2 s
- Initialization reliability: >99.9%

## Physical

- Size(WxH): 15.8 cm x 7.5 cm
- Weight: 0.95 kg (include 2 batteries)

## Environmental

- Operating temperature: -40 °C to +65 °C (40 °F to 149 °F)
- Storage temperature: -40 °C to +85 °C (40 °F to 185 °F)
- Humidity: 100% condensation
- Waterproof and dust proof: IP67 protected from temporary immersion to depth of 1 meter, floats
- Shock: survives a 2 meter drop on to concrete

## Positioning Specifications

- Post Processing Static
  - Horizontal: 2.5 mm + 0.5 ppm RMS
  - Vertical: 5 mm + 0.5 ppm RMS
- Real Time Kinematic
  - Horizontal: 8 mm + 1 ppm RMS
  - Vertical: 15 mm + 1 ppm RMS
- E-RTK\* (baseline <100 km)
  - Horizontal: 0.2 m + 1 ppm RMS
  - Vertical: 0.4 m + 1 ppm RMS
- Code differential GNSS positioning
  - Horizontal: 0.25 m + 1 ppm RMS
  - Vertical: 0.5 m + 1 ppm RMS
- SBAS: Typically <1 m 3D RMS
- Standalone: <1.5 m 3D RMS

## Electrical

- Input Voltage: 5-27 VDC
- Power consumption: 2.85 W (3 constellations)\*
- Li-ion battery capacity: 2 x 1800 mAh, up to 8 hours typically
- Memory: 256 MB internal with up to 16 GB pluggable memory card

## Software

- ComNav field data collection software CGSurvey
- Carlson's SurvCE field data collection software (optional)
- MicroSurvey's FieldGenius field data collection software (optional)

## Communications and Memory

- 1 Serial port (7 pin Lemo), Baud rates up to 921,600 bps.
- Radio modem: Tx/Rx with full frequency range from 410-470 MHz\*
  - Transmit power: 0.5-2W adjustable
  - Range: 1-4 km
- Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz
- 5 LEDs (indicating Power, Satellite Tracking, Bluetooth® and Differential Data)
- Bluetooth® : V 2.X protocol, work compatible with Windows 7, Windows mobile and Android

- \* E-RTK, BeiDou B3 signal used in RTK calculate engine; concern the current situation, this mode can be used in APAC.
  - \* 410-470 MHz, 3 frequency range, 410-430, 430-460, 460-470, need to clarify when place the order.
  - \* Power consumption will increase if using internal radio modem transmitter.
- Specifications subject to change without notice.

© 2014, ComNav Technology Ltd. All rights reserved. ComNav is the trade mark of ComNav Technology Ltd., registered in People's Republic of China. All other trademarks are the property of their respective owners. (September, 2014)

ComNav Technology Ltd.  
Building E, No.50 Alley 2080 Linhua Road  
201103 Shanghai - China

Tel: +86 21 64056796  
Fax: +86 21 54309582

Email: sales@comnavtech.com  
www.comnavtech.com

### 3.4 Annexure – 1: Summary of Forest CA Land.

#### 3.4.1 Total Forest CA Land Area.

NMDC-CMDC CA Land Area Statement							
Balrampur Division							
Sl No.	Division	Range Name	Beat Name	Village Village	Patch No	Compartment No	Proposed Area (Ha.)
1	Balrampur	Ramanujganj	Bagara	Lodha	1	P - 971	65.00
2	Balrampur	Ramanujganj	Chaki	Indarpur	2	P - 3464	30.00
3	Balrampur	Ramanujganj	Viajay Nagar	Viajay Nagar	3	P - 3489	40.00
4	Balrampur	Ramanujganj	Bhitiyahi	Bhitiyahi	4	P - 3410	20.00
Total Area in Ha.							155.00

वन परिक्षेत्राधिकारी  
रामानुजगंज

उप वन मंडलाधिकारी  
बलरामपुर

D.F.O.  
Balrampur Dn.

### 3.5 Annexure -2: DGPS Coordinates.

#### 3.5.1 PF 971 Boundary Point Coordinates.

Sl No	Pillar No	Northing	Easting	Latitude	Longitude
1	P 1	2639018.301	750281.655	23°50'34.90738"	83°27'26.02557"
2	P 2	2638982.087	750392.014	23°50'33.66870"	83°27'29.90116"
3	P 3	2638967.555	750494.886	23°50'33.13856"	83°27'33.52555"
4	P 4	2638953.475	750594.553	23°50'32.62493"	83°27'37.03702"
5	P 5	2638939.108	750696.249	23°50'32.10080"	83°27'40.62000"
6	P 6	2638927.069	750781.466	23°50'31.66160"	83°27'43.62233"
7	P 7	2638914.279	750872.001	23°50'31.19496"	83°27'46.81208"
8	P 8	2638984.859	750912.666	23°50'33.46491"	83°27'48.29164"
9	P 9	2639063.991	750958.257	23°50'36.00988"	83°27'49.95048"
10	P 10	2639094.843	751038.595	23°50'36.96676"	83°27'52.80687"
11	P 11	2639034.735	751066.417	23°50'34.99831"	83°27'53.75256"
12	P 12	2639021.472	751138.463	23°50'34.52670"	83°27'56.28900"
13	P 13	2639061.619	751198.892	23°50'35.79676"	83°27'58.44795"
14	P 14	2639163.514	751213.491	23°50'39.09875"	83°27'59.02624"
15	P 15	2639254.464	751226.522	23°50'42.04603"	83°27'59.54241"
16	P 16	2639270.066	751270.227	23°50'42.52817"	83°28'01.09565"
17	P 17	2639271.067	751374.465	23°50'42.50169"	83°28'04.77786"
18	P 18	2639192.769	751354.669	23°50'39.96926"	83°28'04.03052"
19	P 19	2639114.534	751334.889	23°50'37.43884"	83°28'03.28378"
20	P 20	2639045.661	751317.477	23°50'35.21127"	83°28'02.62642"
21	P 21	2639009.112	751366.698	23°50'33.99605"	83°28'04.34235"
22	P 22	2638971.182	751417.779	23°50'32.73491"	83°28'06.12312"
23	P 23	2638979.492	751485.489	23°50'32.96657"	83°28'08.51964"
24	P 24	2638882.043	751471.352	23°50'29.80878"	83°28'07.96037"
25	P 25	2638836.734	751501.053	23°50'28.32001"	83°28'08.98146"
26	P 26	2638823.401	751524.69	23°50'27.87349"	83°28'09.80808"
27	P 27	2638708.938	751511.974	23°50'24.16217"	83°28'09.28849"
28	P 28	2638576.73	751524.131	23°50'19.86032"	83°28'09.63646"
29	P 29	2638500.325	751556.848	23°50'17.35965"	83°28'10.74493"
30	P 30	2638423.297	751589.833	23°50'14.83858"	83°28'11.86243"
31	P 31	2638357.611	751525.814	23°50'12.74093"	83°28'09.56105"
32	P 32	2638300.312	751469.675	23°50'10.91125"	83°28'07.54310"
33	P 33	2638245.273	751433.744	23°50'09.14358"	83°28'06.24027"
34	P 34	2638251.909	751388.555	23°50'09.38471"	83°28'04.64842"
35	P 35	2638290.697	751338.2	23°50'10.67330"	83°28'02.89390"
36	P 36	2638296.174	751229.476	23°50'10.91273"	83°27'59.05750"
37	P 37	2638301.192	751129.852	23°50'11.13209"	83°27'55.54214"
38	P 38	2638377.467	751082.453	23°50'13.63677"	83°27'53.91502"
39	P 39	2638443.944	751041.142	23°50'15.81974"	83°27'52.49687"
40	P 40	2638502.974	750988.557	23°50'17.76716"	83°27'50.67597"
41	P 41	2638572.54	750926.587	23°50'20.06213"	83°27'48.53007"
42	P 42	2638638.402	750867.916	23°50'22.23493"	83°27'46.49838"
43	P 43	2638676.73	750772.523	23°50'23.53394"	83°27'43.15282"
44	P 44	2638715.407	750676.261	23°50'24.84475"	83°27'39.77680"
45	P 45	2638666.713	750609.408	23°50'23.30059"	83°27'37.38580"

Sl No	Pillar No	Northing	Easting	Latitude	Longitude
46	P 46	2638588.117	750547.199	23°50'20.78233"	83°27'35.14051"
47	P 47	2638551.85	750480.701	23°50'19.64164"	83°27'32.76970"
48	P 48	2638578.753	750433.405	23°50'20.54231"	83°27'31.11579"
49	P 49	2638655.312	750344.79	23°50'23.07941"	83°27'28.03302"
50	P 50	2638735.114	750306.66	23°50'25.69342"	83°27'26.73524"
51	P 51	2638812.736	750228.355	23°50'28.25923"	83°27'24.01717"
52	P 52	2638916.789	750241.623	23°50'31.63214"	83°27'24.54952"

~~वन परिक्षेत्राधिकारी~~  
रामानुजगंज

उप वन मण्डलाधिकारी  
बलरामपुर

D.F.O.  
Balrampur Dn.

### 3.5.2 PF 3464 Boundary Point Coordinates.

Sl No	Pillar No	Northing	Easting	Latitude	Longitude
1	1	2640454.626	754624.497	23°51'19.09892"	83°30'00.30294"
2	2	2640353.896	754714.444	23°51'15.77503"	83°30'03.41713"
3	3	2640259.363	754798.857	23°51'12.65561"	83°30'06.33969"
4	4	2640139.243	754770.059	23°51'08.76997"	83°30'05.24755"
5	5	2640017.734	754740.927	23°51'04.83937"	83°30'04.14279"
6	6	2639888.546	754640.022	23°51'00.70049"	83°30'00.49827"
7	7	2639761.011	754553.394	23°50'56.60710"	83°29'57.35910"
8	8	2639683.921	754519.217	23°50'54.12236"	83°29'56.10392"
9	9	2639606.865	754422.809	23°50'51.67436"	83°29'52.65085"
10	10	2639666.377	754339.018	23°50'53.65568"	83°29'49.72849"
11	11	2639716.663	754268.217	23°50'55.32982"	83°29'47.25916"
12	12	2639801.441	754193.431	23°50'58.12674"	83°29'44.67052"
13	13	2639892.94	754112.716	23°51'01.14535"	83°29'41.87665"
14	14	2639964.685	754049.428	23°51'03.51226"	83°29'39.68593"
15	15	2640043.769	754147.201	23°51'06.02542"	83°29'43.18853"
16	16	2640130.643	754254.606	23°51'08.78610"	83°29'47.03620"
17	17	2640106.301	754344.38	23°51'07.94390"	83°29'50.19188"
18	18	2640169.896	754418.055	23°51'09.96763"	83°29'52.83374"
19	19	2640262.919	754485.501	23°51'12.95089"	83°29'55.27394"
20	20	2640362.529	754557.722	23°51'16.14538"	83°29'57.88696"

  
परिक्षेत्राधिकारी  
रामानुजगज

  
उप वन मण्डलाधिकारी  
बलरामपुर

  
D.F.O.  
Balrampur Dist.

### 3.5.3 PF 3489 Boundary Point Coordinates.

Sl No	Pillar No	Northing	Easting	Latitude	Longitude
1	1	2631655.222	766020.095	23°46'26.58407"	83°36'37.06759"
2	2	2631663.186	766106.88	23°46'26.79093"	83°36'40.13593"
3	3	2631592.463	766222.08	23°46'24.42483"	83°36'44.15611"
4	4	2631525.516	766331.13	23°46'22.18500"	83°36'47.96166"
5	5	2631495.337	766423.644	23°46'21.14940"	83°36'51.20738"
6	6	2631466.964	766510.624	23°46'20.17572"	83°36'54.25897"
7	7	2631470.049	766618.931	23°46'20.21115"	83°36'58.08373"
8	8	2631473.159	766728.122	23°46'20.24683"	83°37'01.93971"
9	9	2631475.888	766823.933	23°46'20.27813"	83°37'05.32315"
10	10	2631449.959	766899.273	23°46'19.39075"	83°37'07.96544"
11	11	2631349.677	766884.321	23°46'16.14224"	83°37'07.37245"
12	12	2631215.273	766864.282	23°46'11.78838"	83°37'06.57771"
13	13	2631102.825	766807.396	23°46'08.16977"	83°37'04.49681"
14	14	2631036.39	766737.353	23°46'06.05367"	83°37'01.98145"
15	15	2630993.603	766692.242	23°46'04.69083"	83°37'00.36150"
16	16	2630936.798	766649.969	23°46'02.87093"	83°36'58.83256"
17	17	2630978.447	766562.778	23°46'04.27597"	83°36'55.78229"
18	18	2631020.083	766475.614	23°46'05.68056"	83°36'52.73295"
19	19	2631062.543	766386.727	23°46'07.11291"	83°36'49.62329"
20	20	2631105.573	766296.643	23°46'08.56452"	83°36'46.47176"
21	21	2631142.7	766218.92	23°46'09.81694"	83°36'43.75263"
22	22	2631172.45	766156.639	23°46'10.82052"	83°36'41.57375"
23	23	2631190.861	766080.062	23°46'11.46430"	83°36'38.88292"
24	24	2631205.682	766018.42	23°46'11.98251"	83°36'36.71688"
25	25	2631301.686	765986.027	23°46'15.12040"	83°36'35.63583"
26	26	2631371.331	765962.528	23°46'17.39671"	83°36'34.85159"
27	27	2631427.511	765957.841	23°46'19.22443"	83°36'34.72258"
28	28	2631502.077	765978.227	23°46'21.63441"	83°36'35.49046"
29	29	2631581.586	765999.964	23°46'24.20413"	83°36'36.30926"

वन परिक्षेत्राधिकारी  
रामानुजगंज

उप वन मंडलाधिकारी  
बलरामपुर

D.F.O.  
Balrampur Dn.

### 3.5.4 PF 3410 Boundary Point Coordinates.

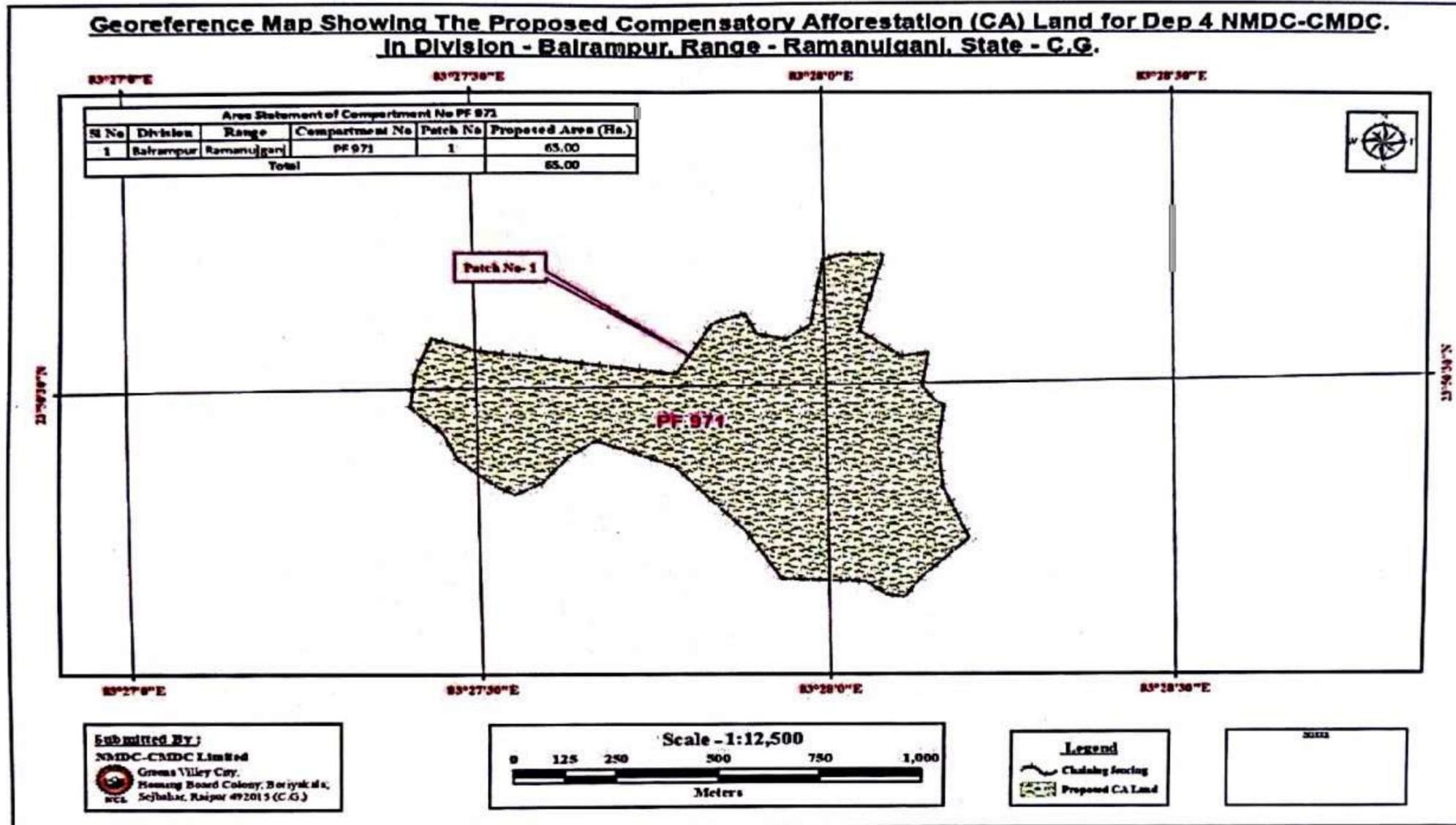
Sl No	Pillar No	Northing	Easting	Latitude	Longitude
1	P 1	2625706.483	765814.025	23°43'13.47135"	83°36'25.94379"
2	P 2	2625705.2	765916.351	23°43'13.36877"	83°36'29.55321"
3	P 3	2625704.059	766007.354	23°43'13.27751"	83°36'32.76320"
4	P 4	2625702.864	766102.642	23°43'13.18194"	83°36'36.12435"
5	P 5	2625701.768	766190.035	23°43'13.09428"	83°36'39.20703"
6	P 6	2625697.922	766252.793	23°43'12.93196"	83°36'41.41874"
7	P 7	2625641.471	766237.609	23°43'11.10729"	83°36'40.84648"
8	P 8	2625573.731	766219.388	23°43'08.91770"	83°36'40.15976"
9	P 9	2625506.503	766170.026	23°43'06.76334"	83°36'38.37472"
10	P 10	2625428.984	766113.107	23°43'04.27913"	83°36'36.31640"
11	P 11	2625337.364	766084.043	23°43'01.32031"	83°36'35.23171"
12	P 12	2625222.527	766069.174	23°42'57.59883"	83°36'34.63286"
13	P 13	2625128.298	766056.974	23°42'54.54521"	83°36'34.14148"
14	P 14	2625061.881	766056.109	23°42'52.38829"	83°36'34.06804"
15	P 15	2625060.174	765965.097	23°42'52.38699"	83°36'30.85599"
16	P 16	2625058.345	765867.647	23°42'52.38559"	83°36'27.41678"
17	P 17	2625152.4	765861.067	23°42'55.44473"	83°36'27.24541"
18	P 18	2625245.7	765834.582	23°42'58.49121"	83°36'26.37130"
19	P 19	2625348.342	765805.445	23°43'01.84274"	83°36'25.40964"
20	P 20	2625421.851	765784.578	23°43'04.24301"	83°36'24.72093"
21	P 21	2625523.359	765789.886	23°43'07.53719"	83°36'24.97380"
22	P 22	2625619.319	765802.535	23°43'10.64678"	83°36'25.48209"

  
वन परिक्षेत्राधिकारी  
रामानुजगज

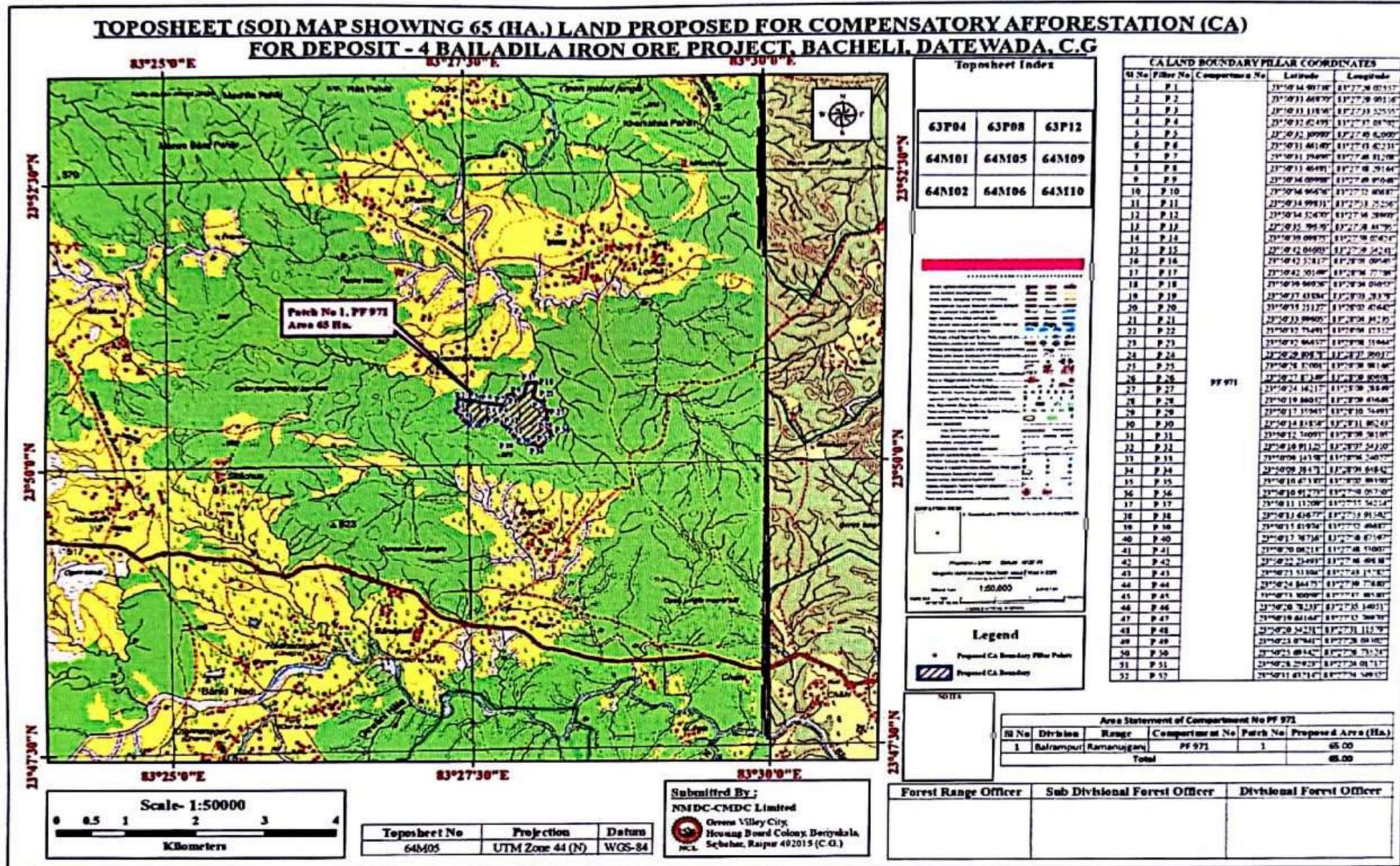
  
उप वन मण्डलाधिकारी  
बलरामपुर

  
D.F.O.  
Balrampur Dist.

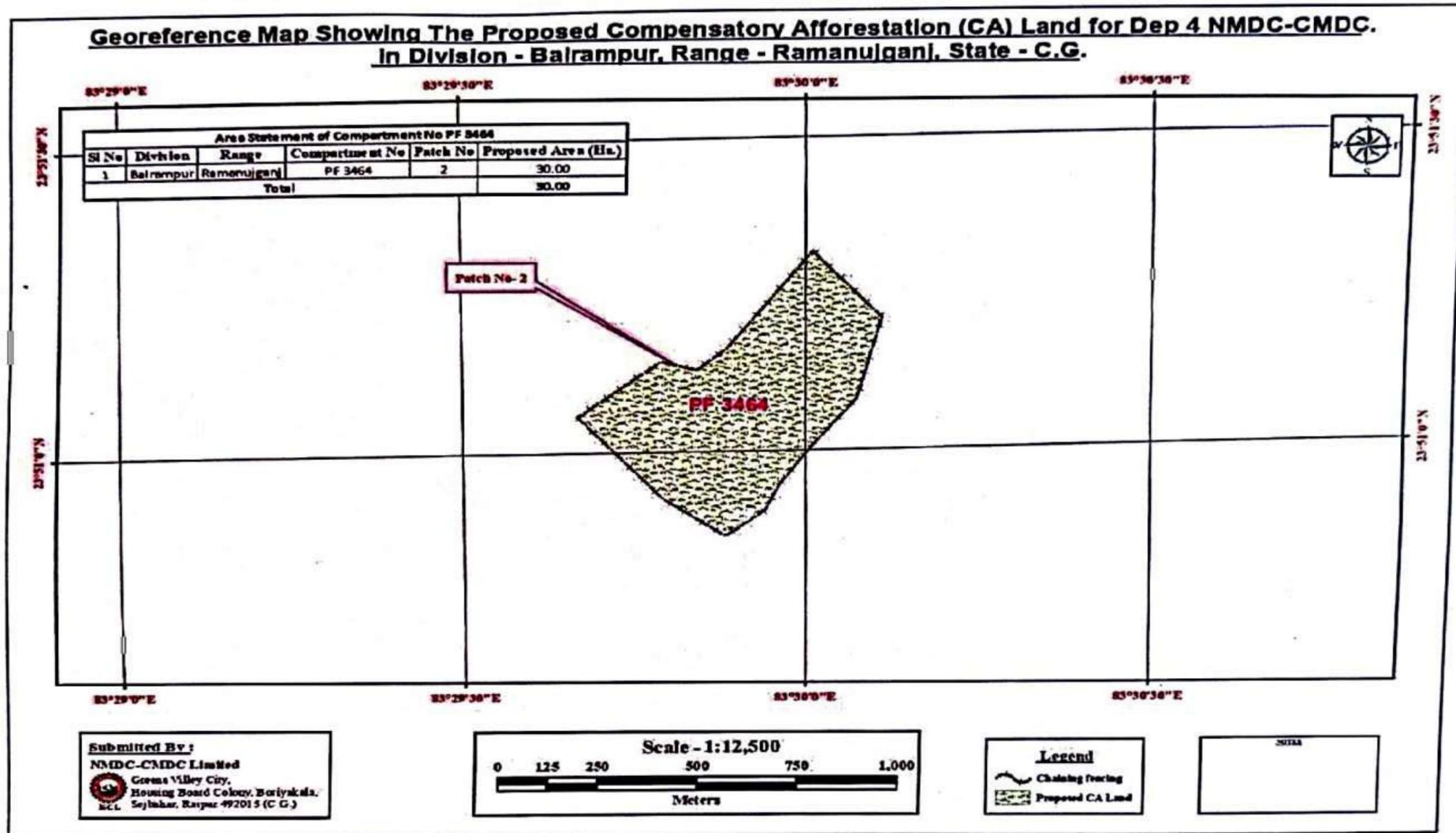
### 3.6 Annexure-3: Geo-referenced Map Showing Proposed Area



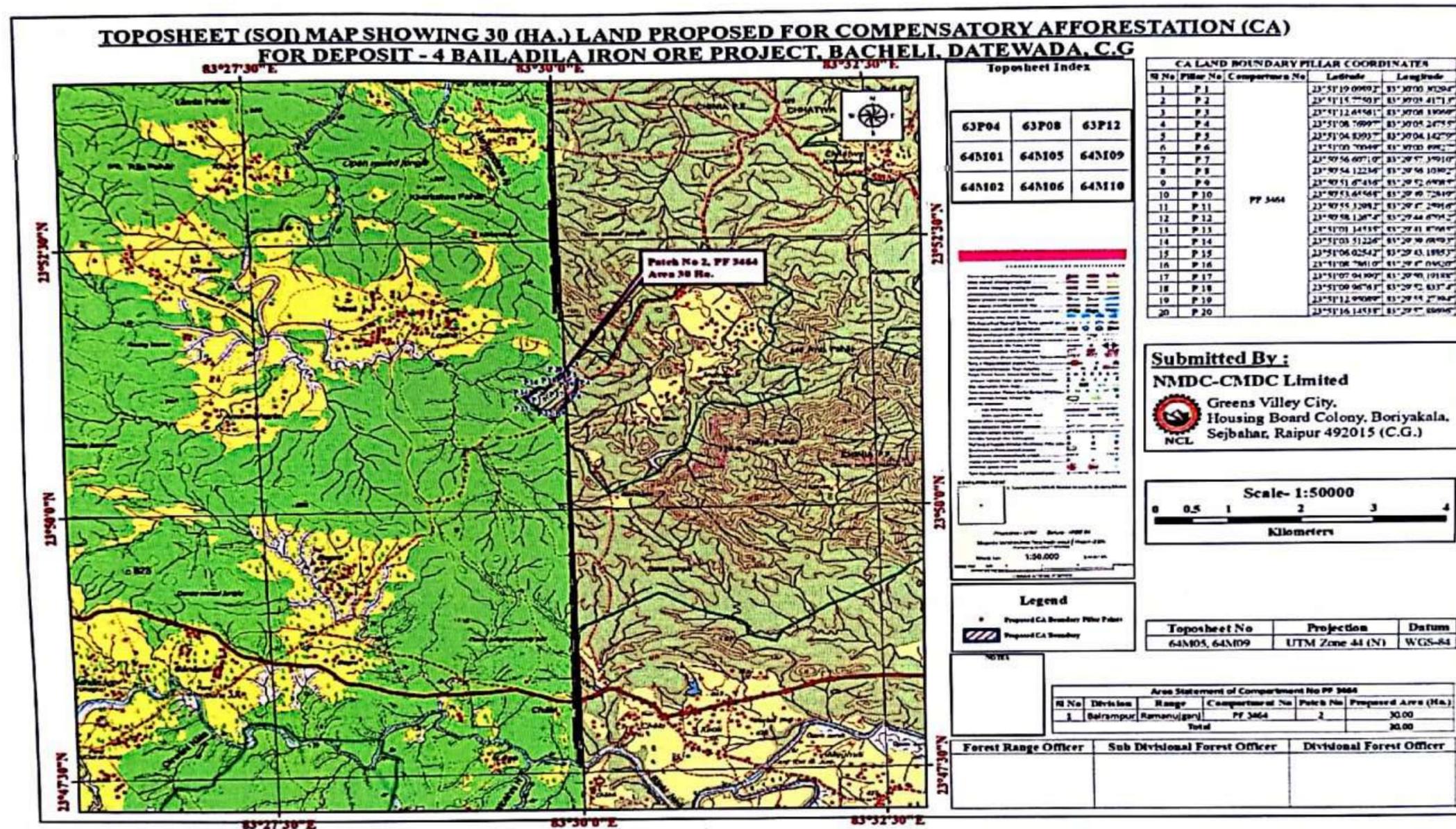
### 3.7 Annexure-4: Geo-referenced SOI Toposheet Showing Proposed Area



### 3.8 Annexure-5: Geo-referenced Map Showing Proposed Area

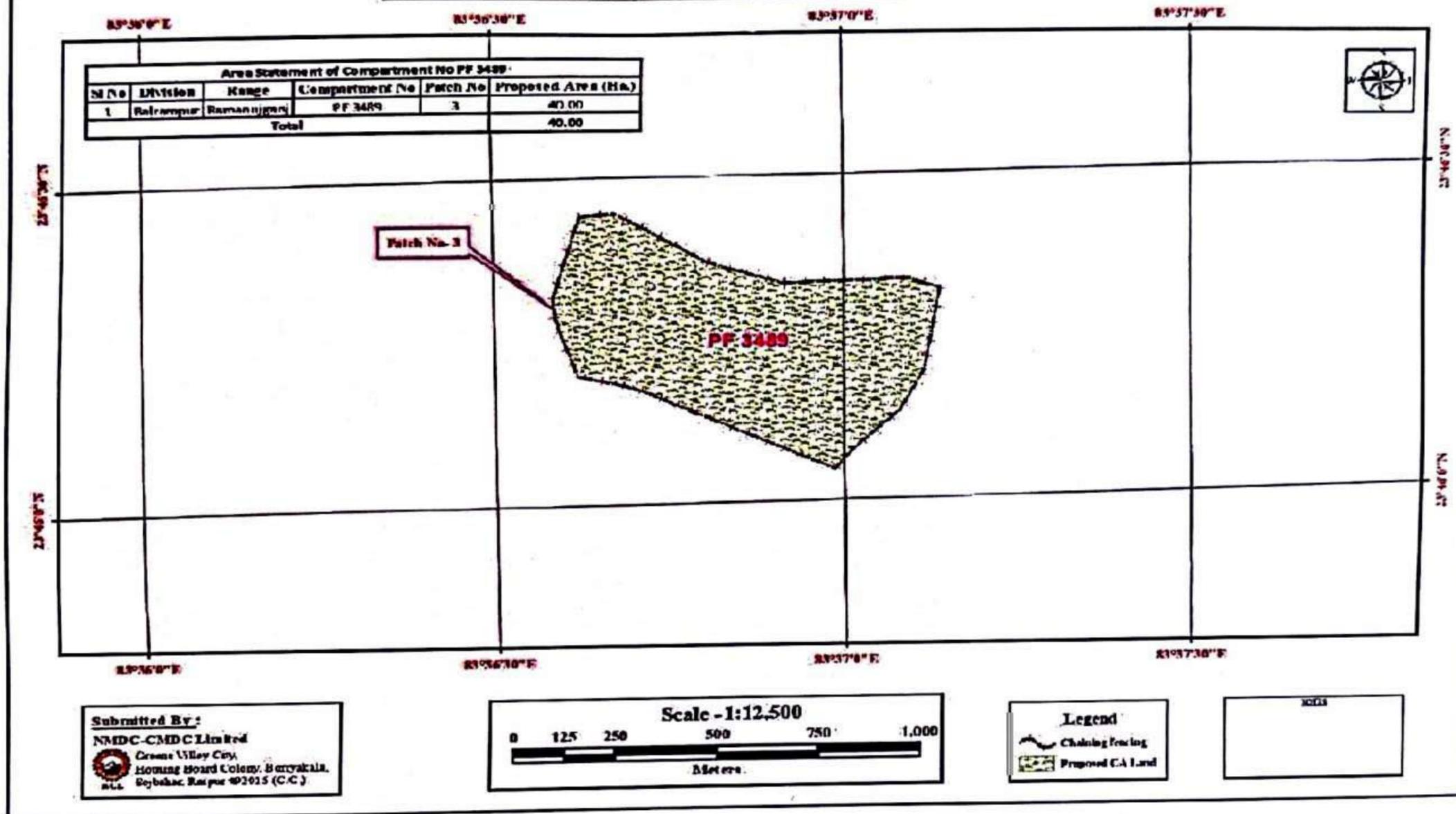


### 3.9 Annexure-6: Geo-referenced SOI Toposheet Showing Proposed Area

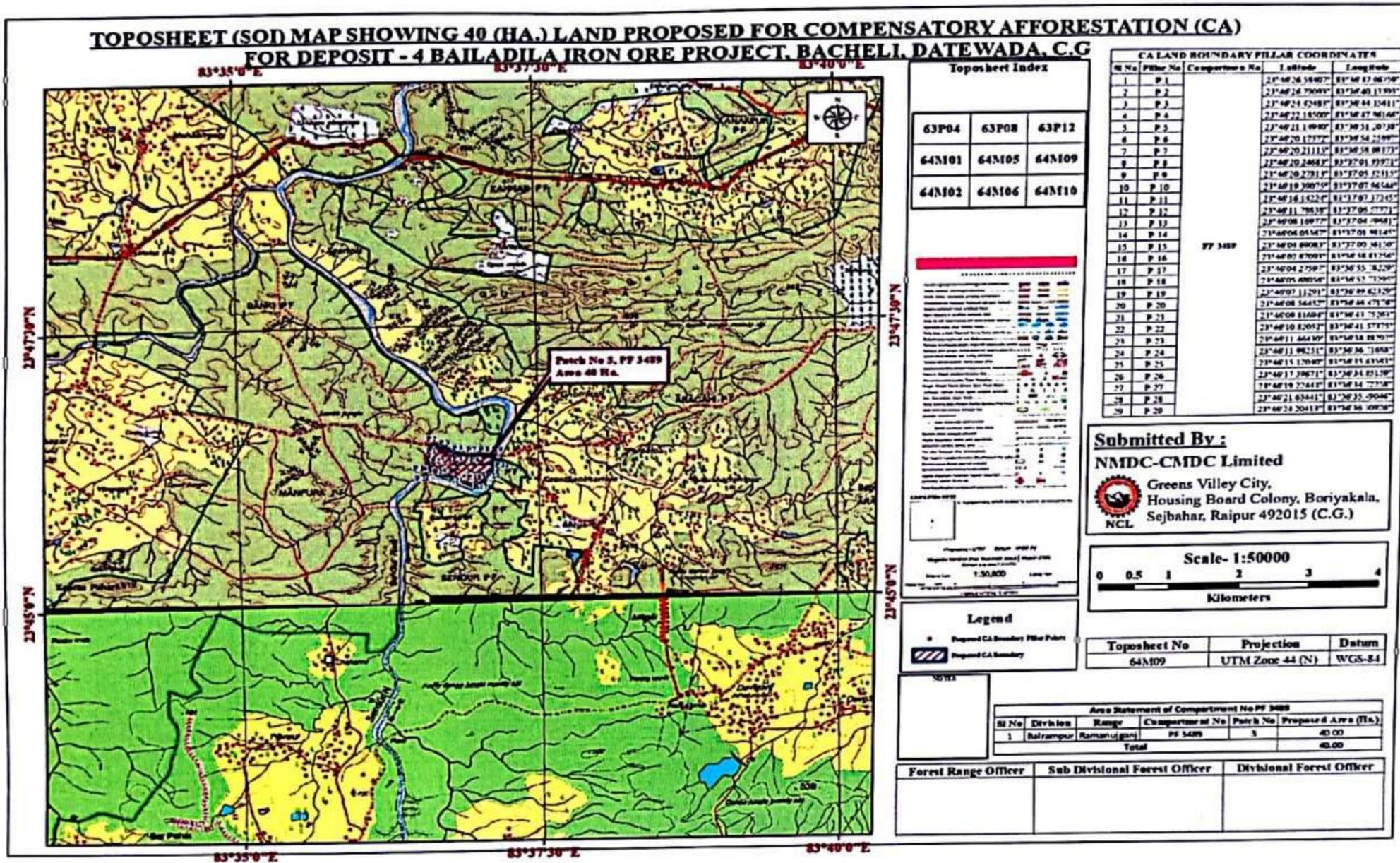


### 3.10 Annexure-7: Geo-referenced Map Showing Proposed Area

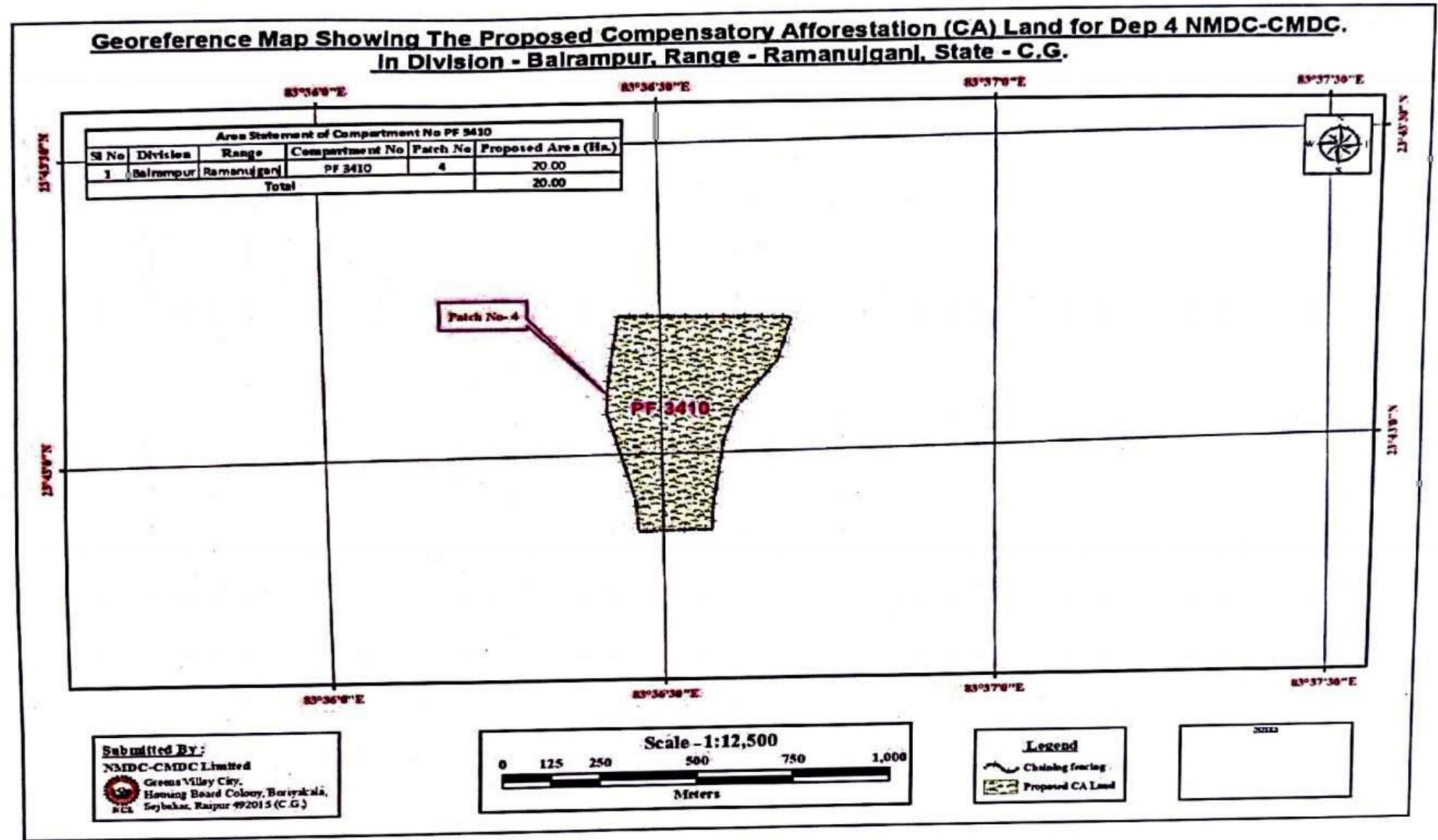
**Georeference Map Showing The Proposed Compensatory Afforestation (CA) Land for Dep 4 NMDC-CMDC.  
In Division - Balrampur, Range - Ramanujgarj, State - C.G.**



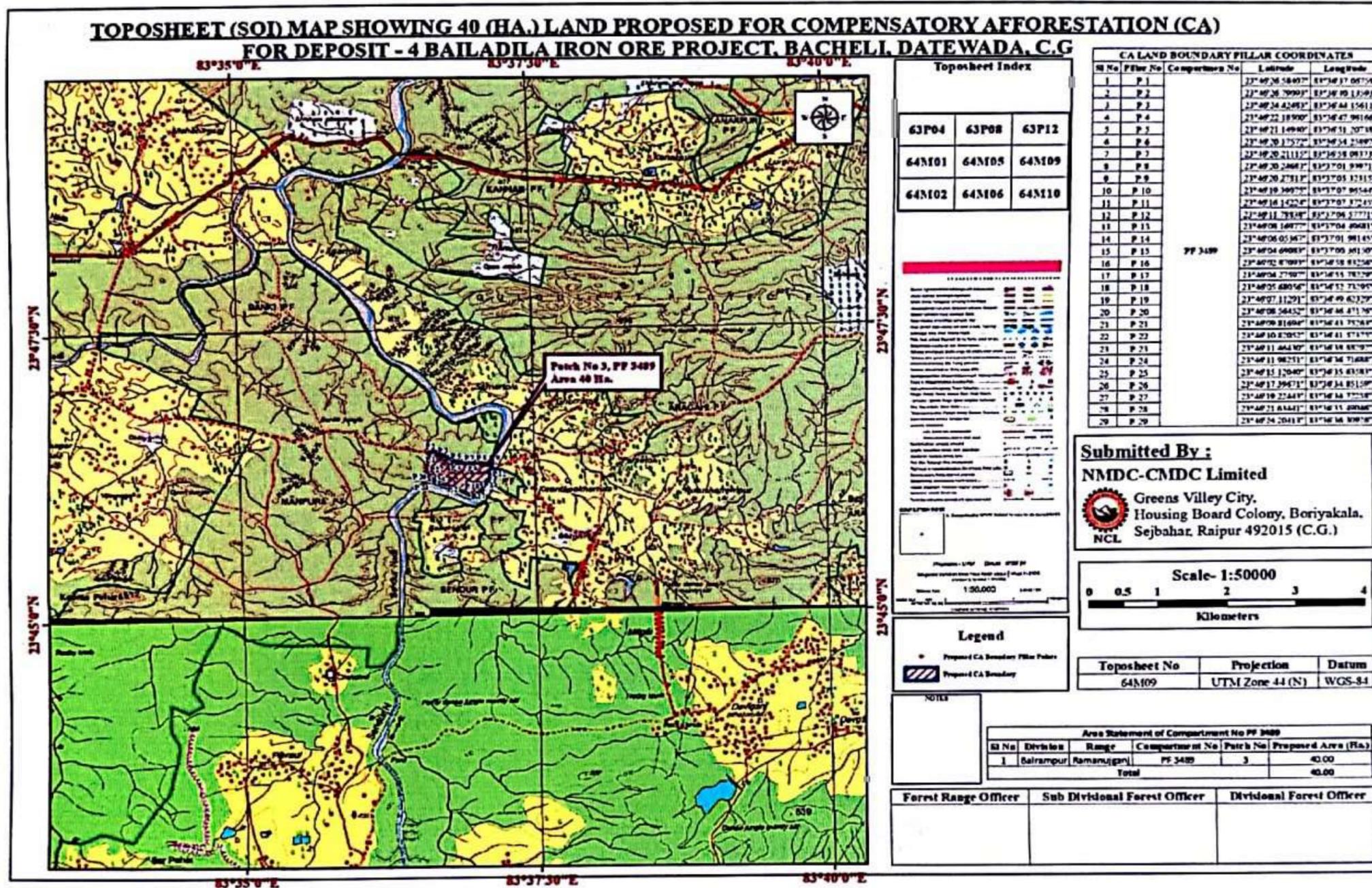
### 3.11 Annexure-8: Geo-referenced SOI Toposheet Showing Proposed Area



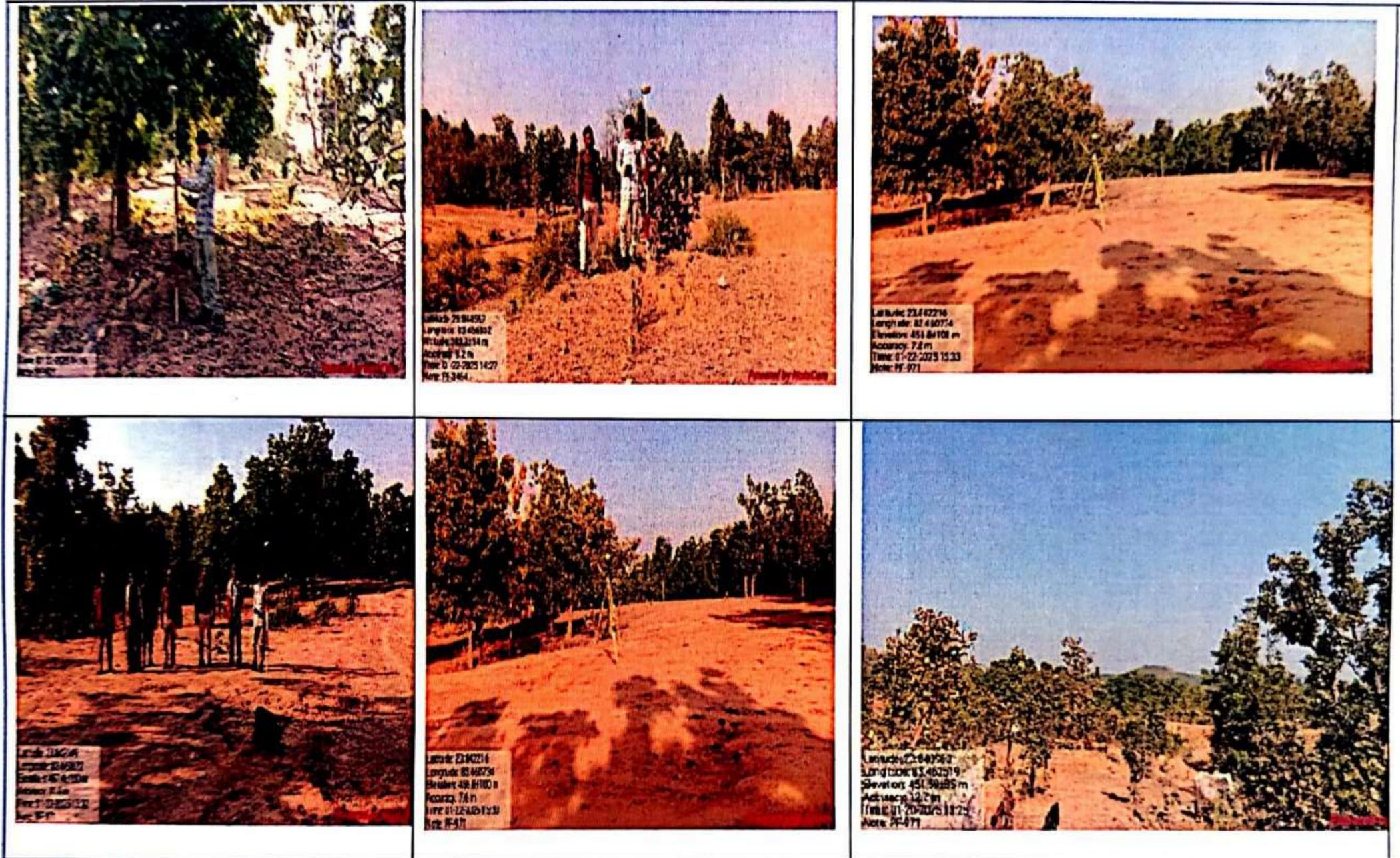
### 3.12 Annexure-9: Geo-referenced Map Showing Proposed Area



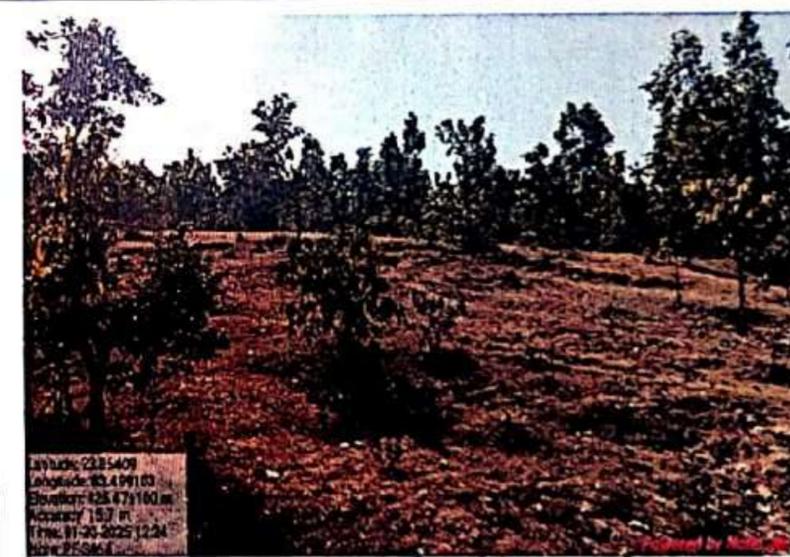
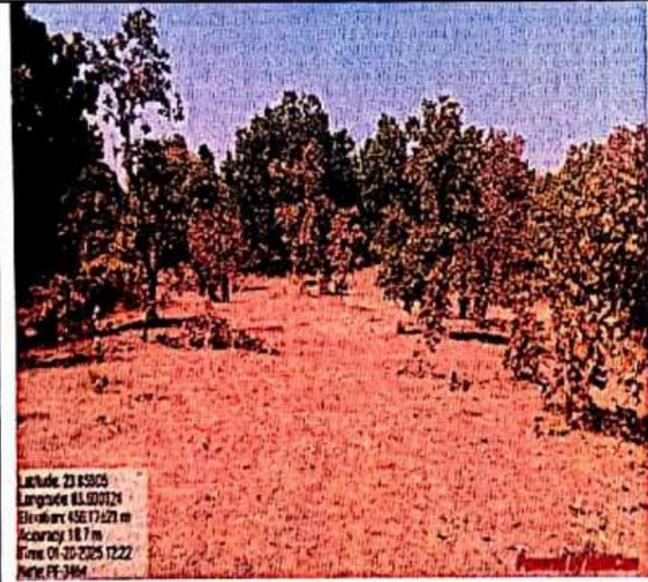
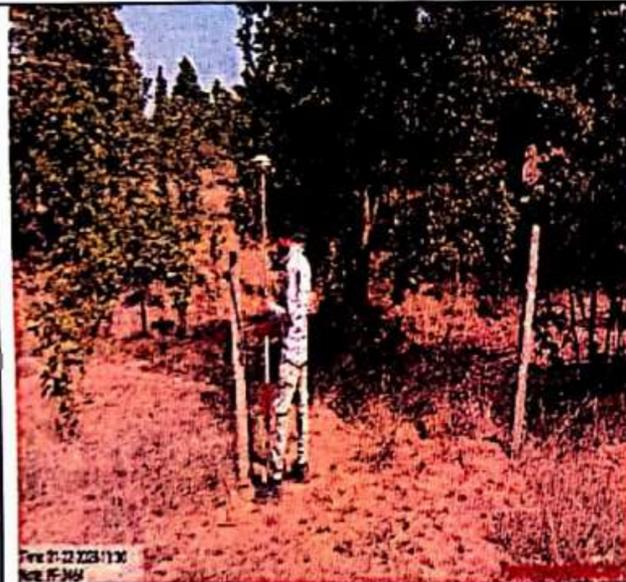
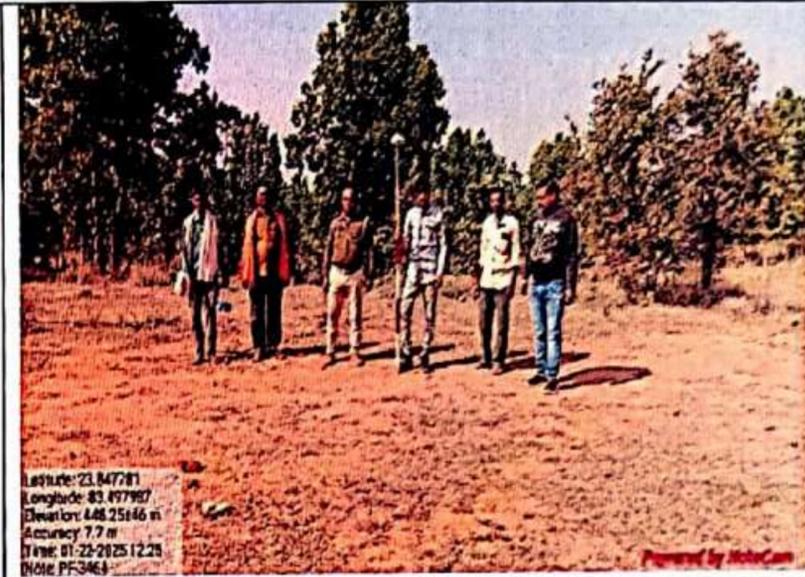
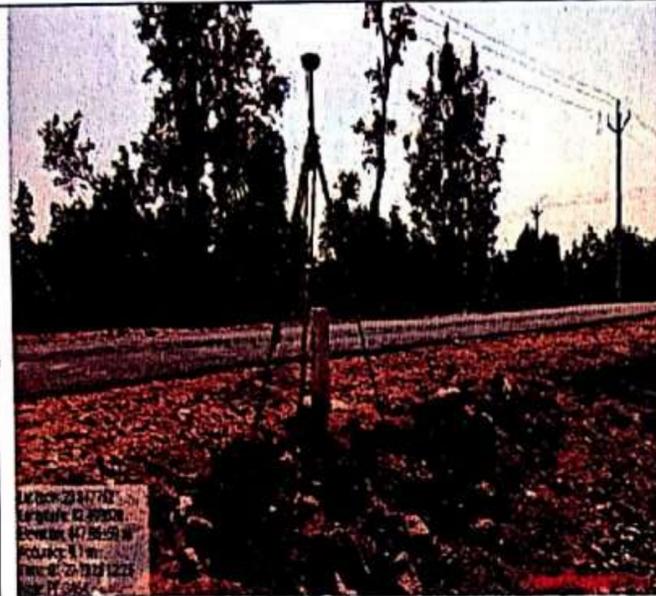
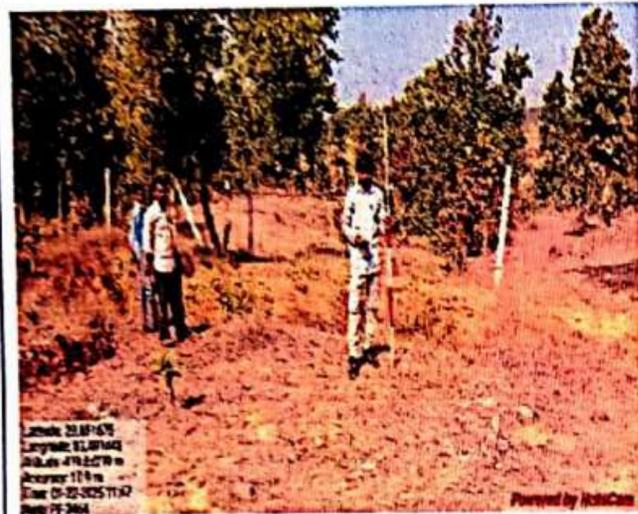
### 3.13 Annexure-10: Geo-referenced SOI Toposheet Showing Proposed Area



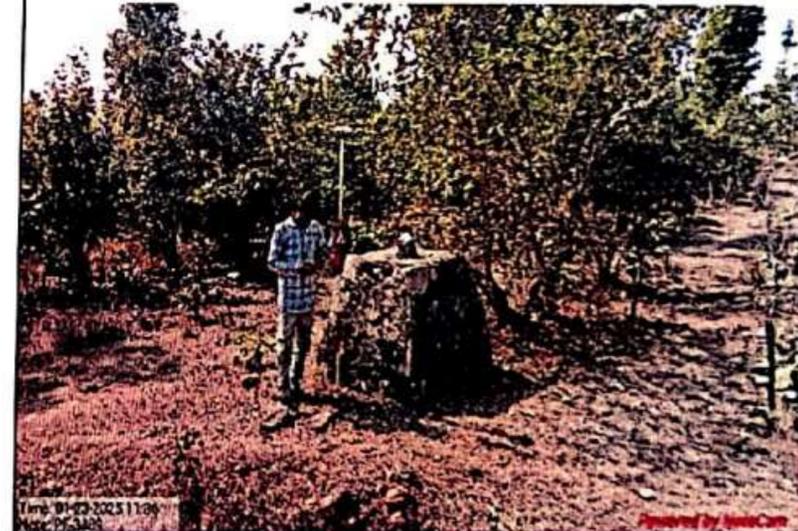
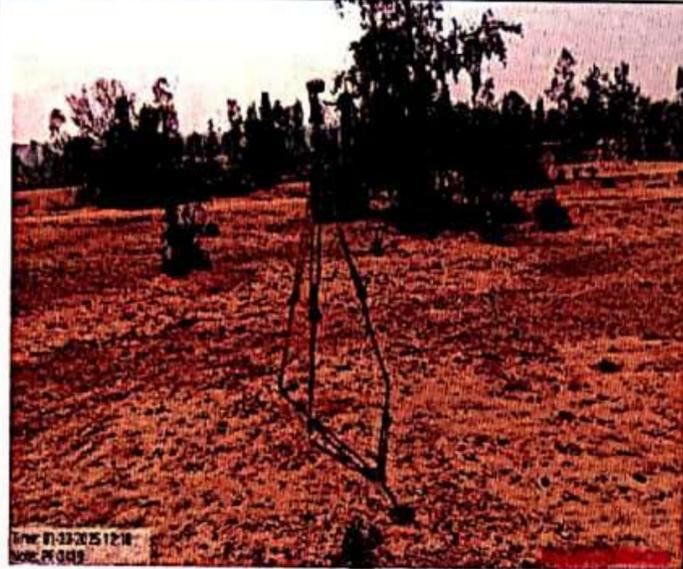
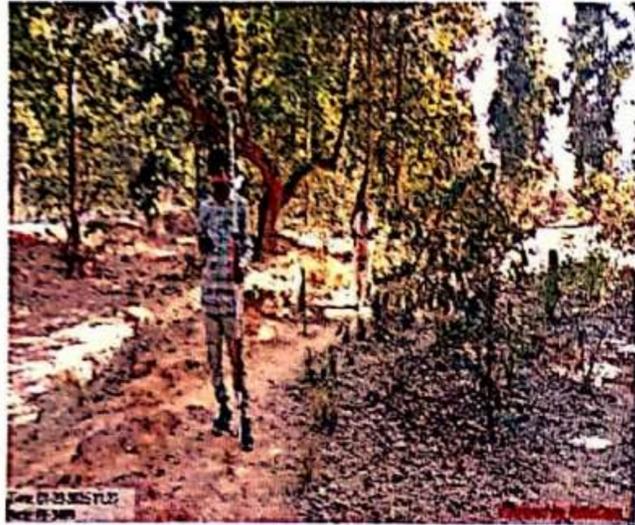
### 3.14 Annexure-11: PF-971 Field Survey Photographs



### 3.15 Annexure-12: PF- 3464 Field Survey Photographs



### 3.16 Annexure-13: PF-3489 Field Survey Photographs



### 3.17 Annexure-14: PF-3410 Field Survey Photographs

