

चेक लिस्ट क्रं. 45

आवेदित वन क्षेत्र तथा प्रस्तावित वैकल्पिक वृक्षारोपण
क्षेत्र का DGPS सर्वे प्रतिवेदन

कार्यालय परियोजना प्रबंधक

(ए.डी.बी.प्रोजेक्ट)

छत्तीसगढ़ सड़क विकास परियोजना, लो.नि.वि., बिलासपुर (छ.ग.)

(E-mail:- eemp.bilaspur.cg@nic.in) Phone – 07752-400946

कंडिका क्रमांक-45

आवेदित वन क्षेत्र तथा प्रस्तावित वैकल्पिक वृक्षारोपण क्षेत्र का DGPS सर्वे प्रतिवेदन

प्रमाणित किया जाता है कि, छत्तीसगढ़ सड़क विकास परियोजना (ए.डी.बी. प्रोजेक्ट) लोक निर्माण विभाग बिलासपुर छत्तीसगढ़ द्वारा धरमजयगढ़ – कापू मार्ग का उन्नयन एवं पुनर्निर्माण कार्य प्रस्तावित है। जिसकी कुल लम्बाई 32.790 कि.मी., जिसमें 10.465 हेक्टे. वन भूमि प्रभावित हो रही है। जिसके आवेदित वन क्षेत्र तथा प्रस्तावित वैकल्पिक वृक्षारोपण क्षेत्र का DGPS सर्वे प्रतिवेदन की वनमंडलाधिकारी द्वारा हस्ताक्षरित प्रति KML File सॉफ्ट प्रति के साथ निर्धारित प्रमाण पत्र सहित संलग्न है।



(ए. के. दीवान)

परियोजना प्रबंधक

(ए.डी.बी. प्रोजेक्ट)

छत्तीसगढ़ सड़क विकास परियोजना
लो.नि.वि., बिलासपुर (छ.ग.)

प्रमाण पत्र

प्रमाणित किया जाता है कि मेरे द्वारा विषयांकित प्रकरण में गैर वानिकी कार्य हेतु प्रभावित वनक्षेत्र में बनाये गये समस्त मुनारों का सत्यापन उप वनमण्डलाधिकारी से निर्धारित प्रपत्र में करा लिया गया है तथा उनका सत्यापन संबंधी प्रमाण पत्र का संधारण कार्यालयीन अभिलेख में किया गया है उक्त मुनारों में से Random रूप से 2% मुनारों का मेरे द्वारा प्रतिपरीक्षण किया गया। जिसका विवरण निम्न प्रपत्र में प्रस्तुत है। समस्त मुनारे अपने अपने निर्धारित स्थल पर सही स्थिति में लगे पाये गये हैं :-

वनमण्डलाधिकारी द्वारा DGPS Survey के दौरान सत्यापित मुनारों का विवरण :-

सत्यापित किये गये मुनारों का ID क्र.	DGPS Survey के नक्शे अनुसार मुनारों के Coordinate		मुनारों के सत्यापन के दौरान प्राप्त Coordinate का विवरण		क्या मुनारे सही स्थान पर सही स्थिति में पाये गये अथवा नहीं का विवरण (हां/नहीं में विशेष उल्लेखनीय बिन्दु)	रिमाक
	Longitude	Latitude	अक्षांश	देशांश		
PF 360						
PL1	E83°13'10.08"	N22°29'47.13"	E83°13'10.08"	N22°29'47.13"	हाँ	
PL2	E83°13'10.97"	N22°29'49.91"	E83°13'10.97"	N22°29'49.91"	हाँ	
PR1	E83°13'10.78"	N22°29'44.07"	E83°13'10.78"	N22°29'44.07"	हाँ	
PR2	E83°13'10.57"	N22°29'47.13"	E83°13'10.57"	N22°29'47.13"	हाँ	
PR3	E83°13'11.45"	N22°29'49.78"	E83°13'11.45"	N22°29'49.78"	हाँ	
PR4	E83°13'11.89"	N22°29'50.77"	E83°13'11.89"	N22°29'50.77"	हाँ	
PF 355						
PR5	E83°13'18.25"	N22°30'08.91"	E83°13'18.25"	N22°30'08.91"	हाँ	
PR6	E83°13'18.98"	N22°30'13.61"	E83°13'18.98"	N22°30'13.61"	हाँ	
PR7	E83°13'17.57"	N22°30'18.27"	E83°13'17.57"	N22°30'18.27"	हाँ	
PR8	E83°13'17.10"	N22°30'19.86"	E83°13'17.10"	N22°30'19.86"	हाँ	
PR9	E83°13'16.54"	N22°30'23.03"	E83°13'16.54"	N22°30'23.03"	हाँ	
PF 354						
PL10	E83°13'16.54"	N22°30'49.25"	E83°13'16.54"	N22°30'49.25"	हाँ	
PL11	E83°13'17.46"	N22°30'53.27"	E83°13'17.46"	N22°30'53.27"	हाँ	
PL12	E83°13'18.02"	N22°30'55.47"	E83°13'18.02"	N22°30'55.47"	हाँ	
PL13	E83°13'17.92"	N22°30'58.96"	E83°13'17.92"	N22°30'58.96"	हाँ	

PL14	E83°13'17.32"	N22°31'03.47"	E83°13'17.32"	N22°31'03.47"	हाँ	
PR10	E83°13'16.77"	N22°30'49.19"	E83°13'16.77"	N22°30'49.19"	हाँ	
PR11	E83°13'17.92"	N22°30'53.11"	E83°13'17.92"	N22°30'53.11"	हाँ	
PR12	E83°13'18.51"	N22°30'5.42"	E83°13'18.51"	N22°30'5.42"	हाँ	
PR13	E83°13'18.41"	N22°30'59.00"	E83°13'18.41"	N22°30'59.00"	हाँ	
PR14	E83°13'17.81"	N22°31'03.51"	E83°13'17.81"	N22°31'03.51"	हाँ	

RF 641

PL17	E83°14'43.63"	N22°33'43.01"	E83°14'43.63"	N22°33'43.01"	हाँ	
PL15	E83°14'46.98"	N22°33'40.78"	E83°14'46.98"	N22°33'40.78"	हाँ	
PL16	E83°14'44.11"	N22°33'41.70"	E83°14'44.11"	N22°33'41.70"	हाँ	
PL18	E83°14'43.05"	N22°33'47.85"	E83°14'43.05"	N22°33'47.85"	हाँ	
PL19	E83°14'42.39"	N22°33'49.49"	E83°14'42.39"	N22°33'49.49"	हाँ	
PR15	E83°14'47.11"	N22°33'41.22"	E83°14'47.11"	N22°33'41.22"	हाँ	
PR16	E83°14'44.50"	N22°33'41.97"	E83°14'44.50"	N22°33'41.97"	हाँ	
PR17	E83°14'44.12"	N22°33'43.11"	E83°14'44.12"	N22°33'43.11"	हाँ	
PR18	E83°14'43.54"	N22°33'47.94"	E83°14'43.54"	N22°33'47.94"	हाँ	
PR19	E83°14'42.85"	N22°33'49.65"	E83°14'42.85"	N22°33'49.65"	हाँ	

PF 629 (PF)

PL20	E83°14'41.66"	N22°33'51.70"	E83°14'41.66"	N22°33'51.70"	हाँ	
PL21	E83°14'40.47"	N22°33'54.54"	E83°14'40.47"	N22°33'54.54"	हाँ	
PL22	E83°14'39.36"	N22°33'56.97"	E83°14'39.36"	N22°33'56.97"	हाँ	
PL23	E83°14'38.87"	N22°34'00.82"	E83°14'38.87"	N22°34'00.82"	हाँ	
PR20	E83°14'42.14"	N22°33'51.78"	E83°14'42.14"	N22°33'51.78"	हाँ	
PR21	E83°14'40.88"	N22°33'54.79"	E83°14'40.88"	N22°33'54.79"	हाँ	
PR22	E83°14'39.84"	N22°33'57.08"	E83°14'39.84"	N22°33'57.08"	हाँ	
PR23	E83°14'39.36"	N22°34'00.80"	E83°14'39.36"	N22°34'00.80"	हाँ	
PR24	E83°14'39.51"	N22°34'02.30"	E83°14'39.51"	N22°34'02.30"	हाँ	
PR25	E83°14'39.72"	N22°34'04.20"	E83°14'39.72"	N22°34'04.20"	हाँ	

RF 80

PR26	E83°16'18.83"	N22°38'30.98"	E83°16'18.83"	N22°38'30.98"	हाँ	
PR27	E83°16'14.99"	N22°38'32.34"	E83°16'14.99"	N22°38'32.34"	हाँ	
PR28	E83°16'12.23"	N22°38'35.90"	E83°16'12.23"	N22°38'35.90"	हाँ	
PR29	E83°16'10.81"	N22°38'36.57"	E83°16'10.81"	N22°38'36.57"	हाँ	
PR30	E83°16'08.62"	N22°38'39.68"	E83°16'08.62"	N22°38'39.68"	हाँ	
PR31	E83°16'10.55"	N22°38'40.31"	E83°16'10.55"	N22°38'40.31"	हाँ	

PR32	E83°16'13.41"	N22°38'39.84"	E83°16'13.41"	N22°38'39.84"	हाँ	
PR33	E83°16'13.82"	N22°38'38.62"	E83°16'13.82"	N22°38'38.62"	हाँ	
PR34	E83°16'16.31"	N22°38'38.85"	E83°16'16.31"	N22°38'38.85"	हाँ	
PR35	E83°16'17.56"	N22°38'37.02"	E83°16'17.56"	N22°38'37.02"	हाँ	
PR36	E83°16'21.96"	N22°38'37.12"	E83°16'21.96"	N22°38'37.12"	हाँ	
PR37	E83°16'26.50"	N22°38'35.71"	E83°16'26.50"	N22°38'35.71"	हाँ	
PR38	E83°16'29.51"	N22°38'33.90"	E83°16'29.51"	N22°38'33.90"	हाँ	
PR39	E83°16'32.99"	N22°38'31.79"	E83°16'32.99"	N22°38'31.79"	हाँ	
PR40	E83°16'33.04"	N22°38'35.14"	E83°16'33.04"	N22°38'35.14"	हाँ	
PR41	E83°16'28.98"	N22°38'39.89"	E83°16'28.98"	N22°38'39.89"	हाँ	
PR42	E83°16'27.82"	N22°38'43.75"	E83°16'27.82"	N22°38'43.75"	हाँ	
PR43	E83°16'26.46"	N22°38'44.76"	E83°16'26.46"	N22°38'44.76"	हाँ	
PR44	E83°16'35.06"	N22°38'43.35"	E83°16'35.06"	N22°38'43.35"	हाँ	
PR45	E83°16'43.05"	N22°38'40.32"	E83°16'43.05"	N22°38'40.32"	हाँ	
PR47	E83°16'48.60"	N22°38'39.63"	E83°16'48.60"	N22°38'39.63"	हाँ	

RF 35

PL26	E83°16'18.44"	N22°38'30.69"	E83°16'18.44"	N22°38'30.69"	हाँ	
PL27	E83°16'14.55"	N22°38'32.12"	E83°16'14.55"	N22°38'32.12"	हाँ	
PL28	E83°16'12.06"	N22°38'35.46"	E83°16'12.06"	N22°38'35.46"	हाँ	
PL29	E83°16'10.42"	N22°38'36.30"	E83°16'10.42"	N22°38'36.30"	हाँ	
PL30	E83°16'08.13"	N22°38'39.73"	E83°16'08.13"	N22°38'39.73"	हाँ	
PL31	E83°16'10.59"	N22°38'40.76"	E83°16'10.59"	N22°38'40.76"	हाँ	
PL32	E83°16'13.76"	N22°38'40.16"	E83°16'13.76"	N22°38'40.16"	हाँ	
PL33	E83°16'14.23"	N22°38'38.88"	E83°16'14.23"	N22°38'38.88"	हाँ	
PL34	E83°16'16.35"	N22°38'39.31"	E83°16'16.35"	N22°38'39.31"	हाँ	
PL35	E83°16'17.59"	N22°38'37.49"	E83°16'17.59"	N22°38'37.49"	हाँ	
PL36	E83°16'22.03"	N22°38'37.57"	E83°16'22.03"	N22°38'37.57"	हाँ	
PL37	E83°16'26.79"	N22°38'36.08"	E83°16'26.79"	N22°38'36.08"	हाँ	
PL38	E83°16'29.82"	N22°38'34.26"	E83°16'29.82"	N22°38'34.26"	हाँ	
PL39	E83°16'32.66"	N22°38'32.13"	E83°16'32.66"	N22°38'32.13"	हाँ	
PL40	E83°16'32.58"	N22°38'35.29"	E83°16'32.58"	N22°38'35.29"	हाँ	
PL41	E83°16'28.51"	N22°38'39.79"	E83°16'28.51"	N22°38'39.79"	हाँ	
PL42	E83°16'27.55"	N22°38'43.37"	E83°16'27.55"	N22°38'43.37"	हाँ	
PL43	E83°16'26.03"	N22°38'44.98"	E83°16'26.03"	N22°38'44.98"	हाँ	
PL44	E83°16'35.38"	N22°38'43.70"	E83°16'35.38"	N22°38'43.70"	हाँ	

PL45	E83°16'43.08"	N22°38'40.78"	E83°16'43.08"	N22°38'40.78"	हाँ	
PL46	E83°16'48.63"	N22°38'40.08"	E83°16'48.63"	N22°38'40.08"	हाँ	


वन परिक्षेत्र अधिकारी
परिक्षेत्र बोरो


वन परिक्षेत्र अधिकारी
कापू (सा.)


वन परिक्षेत्र अधिकारी
धरमजयगढ़


उपवन मण्डलाधिकारी
धरमजयगढ़, उपवन मण्डल


उपवन मण्डलाधिकारी
लैलूंगा, उपवन मण्डल


वनमण्डलाधिकारी
धरमजयगढ़ वन मण्डल

DGPS SURVEY REPORT FOR Compensatory Afforestation

Rehabilitation and upgradation of Dharamjaygarh - Kapu road ,
District Raigarh

Forest Division: Dharamjaygarh

Range : Chahal

Narangi Vankhand : Kudhrikhar & Sithra

Village : Ponichahal & Sithra



Report Prepared by.
Harsh Consultancy
RAIPUR (CHHATTISGARH)

Submitted to
Divisional Forest Officer (DFO)
Dharamjaygarh Forest Division
Chhattisgarh

RANGE OFFICER

Range - Chahal

Division - Dharamjaigarh

उप वन मण्डलाधिकारी
धरमजयगढ़ उप वन मण्डल

(AK. Diwan)
Project Manager
(ADB Project)
P.W.D., Bilaspur (C.G.)

INTRODUCTION TO DGPS

WHAT IS DGPS AND WHY USE IT?

- **Differential Global Positioning System (DGPS)** is an enhancement to Global Positioning System that provides improved location accuracy, from the 15-meter nominal GPS accuracy to about 10 cm in case of the best implementations.
 - DGPS refers to using a combination of receivers and satellites to reduce/eliminate common receiver based and satellite based errors reduce orbit errors reduce ionospheric and tropospheric errors reduce effects of SA eliminate satellite and receiver clock errors
 - improve accuracy significantly 100's of metres to metres to centimetres to millimetres
1. DGPS uses one or several (network) fixed ground based reference stations (in known locations).
 2. The base station compares its own known location, to that computed from a GPS receiver.

3. Any difference is then broadcast as a correction to the user.

Correction signals can be broadcast either from ground stations, or via additional satellites. These services are privately owned and usually require a user subscription.

Examples:

- Satellite Based Augmentation System (SBAS),
- Wide Area Augmentation System (WAAS),
- Local Area Augmentation System (LAAS),
- European Geostationary Navigation Overlay Service (EGNOS),
- Omni STAR
- Coast guard beacon service.

Why do we Need Differential GPS?

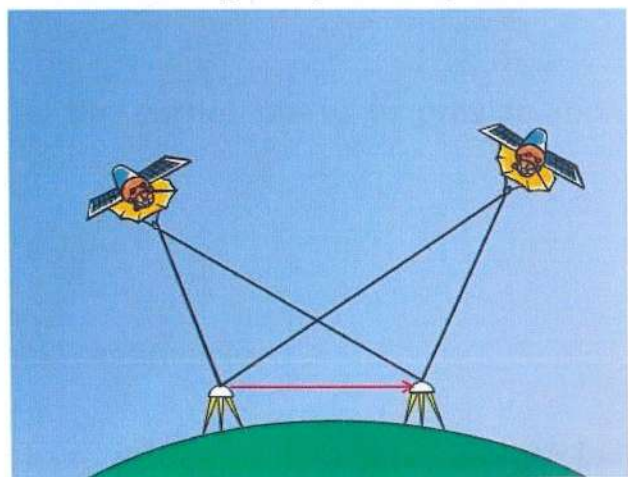
By using DGPS we can improve our positional accuracy from around 1.5m with standard GPS to around 40cm with DGPS, without the need for post processing.

In the case of the road survey van (top right), users can measure the amount of road wear and judge whether the road should be resurfaced just by driving over it. Just one day's driving can replace a month's manual work using traditional methods.

There are many other applications like this. The labour saving is immense but at the same time, previously impossible tasks are made possible such as the prediction of earthquakes before they occur.

DGPS Summary

- Term refers to simple C/A code differential
- Available on GPS receivers from low cost to high cost
- Produces accuracies from sub-metre to metres
- Many real-time DGPS correction providers - Coast guard, EGNOS, OmniSTAR
- Used for many different applications including marine navigation, precision farming and vehicle testing applications.



What is RTK?

Real Time Kinematic is an advanced form of DGPS which uses the satellites carrier wave to compare 2 observations from different receivers

within the system, to fine tune the satellite and receiver clock errors, thus improving positional accuracy.

Real Time Kinematic (RTK)

The GPS signal is made up of 3 distinct components:

- Carrier wave
- GPS Code
- Navigation message

Typical GPS receivers will use the GPS navigation message to calculate its position. RTK uses the carrier wave of the GPS signal, which is 19.02cm long. By counting the number of cycles (and phase of the carrier), the travel time and distance can be measured more accurately.

RTK Summary

- Similar technique as DGPS that uses the carrier phase to provide more accurate positioning
- Cost is higher compared to DGPS receivers
- Produces accuracies from 20 cm to sub-centimetres
- RTK corrections provided via a local base station or by a private correction provider - OmniSTAR, Leica, Trimble

- Used for many different applications including machine control (construction, container ports, farming), vehicle testing applications, surveying (land, marine, hydrographic, aerial)

RINEX FILE

The first proposal for the **Receiver Independent Exchange Format RINEX** was developed by the Astronomical Institute of the University of Berne for the easy exchange of the Global.

Positioning System (GPS) data to be collected during the first large European GPS campaign

EUREF 89, which involved more than 60 GPS receivers of 4 different manufacturers. The governing aspect during the development was the following fact:

Most geodetic processing software for GPS data use a well-defined set of observables:

- The carrier-phase measurement at one or both carriers (actually being a measurement on the beat frequency between the received carrier of the satellite signal and a receiver generated reference frequency).
- The pseudorange (code) measurement, equivalent to the difference of the time of reception (expressed in the time frame of the receiver) and the time of transmission (expressed in the time frame of the satellite) of a distinct satellite signal.
- The observation time being the reading of the receiver clock at the instant of validity of the carrier-phase and/or the code measurements. Usually the

software assumes that the observation time is valid for both the phase **and** the code measurements, **and** for all satellites observed. Consequently all these programs do not need most of the information that is usually stored by the receivers: They need phase, code, and time in the above mentioned definitions, and some stationrelated information like station name, antenna height, etc. Up till now two major format versions have been developed and published:

- The original RINEX Version 1 presented at and accepted by the 5th International Geodetic Symposium on Satellite Positioning in Las Cruces, 1989. [Gurtner et al. 1989],[Evans 1989]
- RINEX Version 2 presented at and accepted by the Second International Symposium of Precise Positioning with the Global Positioning system in Ottawa, 1990, mainly adding the possibility to include tracking data from different satellite systems (GLONASS, SBAS). [Gurtner and Mader 1990a, 1990b], [Gurtner 1994]. Several subversions of RINEX Version 2 have been defined:
- Version 2.10: Among other minor changes allowing for sampling rates other than integer seconds and including raw signal strengths as new observables. [Gurtner 2002]
- Version 2.11: Includes the definition of a two-character observation code for L2C pseudoranges and some modifications in the GEO NAV MESS files [Gurtner and Estey 2005]
- Version 2.20: Unofficial version used for the exchange of tracking data from spaceborne receivers within the IGS LEO pilot project [Gurtner and Estey 2002]. As spin-offs of this idea of a receiver-independent GPS exchange

format other RINEX-like exchange file formats have been defined, mainly used by the International GNSS Service IGS:

- Exchange format for **satellite and receiver clock offsets** determined by processing data of a GNSS tracking network [Ray and Gurtner 1999]
- Exchange format for the complete **broadcast data of spacebased augmentation systems** SBAS. [Suard et al. 2004]
- IONEX: Exchange format for **ionosphere models** determined by processing data of a GNSS tracking network [Schaer et al. 1998]
- ANTEX: Exchange format for **phase center variations** of geodetic GNSS antennae [Rothacher and Schmid 2005].

The upcoming European Navigation Satellite System Galileo and the enhanced GPS with new frequencies and observation types, especially the possibility to track frequencies on different channels, ask for a more flexible and more detailed definition of the observation codes. To improve the handling of the data files in case of "mixed" files, i.e. files containing tracking data of more than one satellite system, each one with different observation types, the record structure of the data record has been modified significantly and, following several requests, the limitation to 80 characters length has been removed. As the changes are quite significant, they lead to a new RINEX Version 3. The new version also includes the unofficial Version 2.20 definitions for space-borne receivers. The major change asking for a version 3.01 was the requirement to generate consistent phase observations across different tracking modes or channels, i.e. to apply $\frac{1}{4}$ -cycle shifts prior to RINEX file generation, if necessary, to facilitate the processing of such data.

The RINEX version 3.00 format consists of three ASCII file types:

1. Observation data File
2. Navigation message File
3. Meteorological data File

Each file type consists of a header section and a data section. The header section contains global information for the entire file and is placed at the beginning of the file. The header section contains **header labels in columns 61-80** for each line contained in the header section. These labels are mandatory and must appear exactly as given in these descriptions and examples. The format has been optimized for minimum space requirements independent from the number of different observation

types of a specific receiver or satellite system by indicating in the header the types of observations to be stored for this receiver and the satellite systems having been observed. In computer systems allowing variable record lengths the observation records may be kept as short as possible. Trailing blanks can be removed from the records. There is no maximum record length limitation for the observation records.

Each Observation file and each Meteorological Data file basically contain the data from one site and one session. Starting with Version 2 RINEX also allows including observation data from more than one site subsequently occupied by a roving receiver in rapid static or kinematic applications. Although Version 2 and higher allow to insert header records into the data section it is not recommended to concatenate data of more than one receiver (or antenna) into the same file, even if the data do not overlap in time. If data from more

than one receiver have to be exchanged, it would not be economical to include the identical satellite navigation messages collected by the different receivers several times. Therefore the navigation message file from one receiver may be exchanged or a composite navigation message file created containing non-redundant information from several receivers in order to make the most complete file. The format of the data records of the RINEX Version 1 navigation message file was identical to the former NGS exchange format. RINEX version 3 navigation message files may contain navigation messages of more than one satellite system (GPS, GLONASS, Galileo, Quasi Zenith Satellite System (QZSS), BeiDou System (BDS) and SBAS).

The actual format descriptions as well as examples are given in the Appendix Tables at the end of the document.

BASIC DEFINITIONS

Time:

The time of the measurement is the receiver time of the received signals. It is identical for the phase and range measurements and is identical for all satellites observed at that epoch. For single-system data files it is by default expressed in the time system of the respective satellite system. Otherwise the actual time can (for mixed files must) be indicated in the Start Time header record.

Pseudo-Range:

The pseudo-range (PR) is the distance from the receiver antenna to the satellite antenna including receiver and satellite clock offsets (and other biases, such as atmospheric delays): $PR = \text{distance} + c * (\text{receiver clock offset} - \text{satellite clock offset} + \text{other biases})$

so that the pseudo-range reflects the actual behaviour of the receiver and satellite clocks. The pseudo-range is stored in units of meters.

Phase:

The phase is the carrier-phase measured in whole cycles. The halfcycles measured by squaring type receivers must be converted to whole cycles and flagged by the respective observation code.

The phase changes in the same sense as the range (negative doppler). The phase observations between epochs must be connected by including the integer number of cycles. The observables are not corrected for external effects like atmospheric refraction, satellite clock offsets, etc. If necessary phase observations are corrected for phase shifts needed to guarantee consistency between phases of the same frequency and satellite system based on different signal channels.

If the receiver or the converter software adjusts the measurements using the real-time-derived receiver clock offsets $dT(r)$, the consistency of the 3

quantities phase / pseudo-range / epoch must be maintained, i.e. the receiver clock correction should be applied to all 3 observables:

$$1 \text{ Time (corr)} = \text{Time}(r) - dT(r)$$

$$2 \text{ PR (corr)} = \text{PR (r)} - dT(r)*c$$

$$(\text{corr}) = \text{phase (r)} - dT(r)*\text{freq}$$

3 phase

Doppler:

The sign of the doppler shift as additional observable is defined as usual: Positive for approaching satellites.

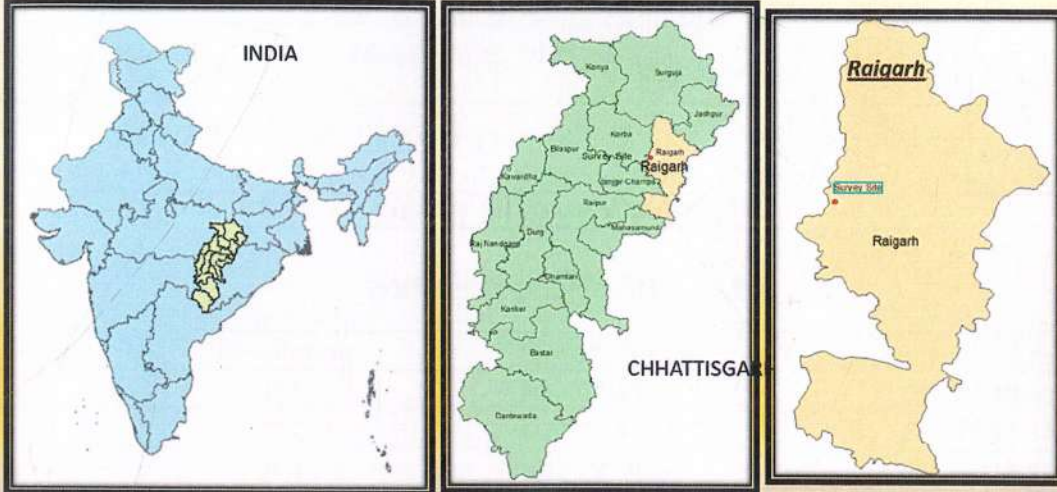
Satellite numbers:

Starting with RINEX Version 2 the former two-digit satellite numbers **nn** are preceded by a one-character system identifier **s**. The same satellite system identifiers are also used in all header records when appropriate.

THE EXCHANGE OF RINEX FILES:

The original RINEX file naming convention was implemented in the MSDOS era when file names were restricted to 8.3 characters. Modern operating systems typically support 255 character file names. The goal of the new file naming convention is to be more: descriptive, flexible and extensible than the RINEX 2.11 file naming convention. All elements are fixed length and are separated by an underscore "_" except for the: file type and compression fields that uses a period "." separator. Fields must be padded with zeros to fill the field width. The file compression field is optional. In order to further reduce the size of observation files Yuki Hatanaka developed a compression scheme that takes advantage of the structure of the RINEX observation data by forming higher order differences in time between observations of the same type and satellite. This compressed file is also an ASCII file that is subsequently compressed again using the above mentioned standard compression programs

Location Plan



Area Details

SL_No	Village	Khasra No	Status of Forest Land	Range	Division	District	Area in Ha.
1	Ponichhal	36/1	Orange Area	Chhal	Dharamjaigarh	Raigarh	16.699
2	Sithra	69\1	Orange Area	Chhal	Dharamjaigarh	Raigarh	6.538
Total							23.237

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जिला रायगढ़ (छ.ग.)

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उप वन मण्डलाधिकारी
धरमजयगढ़ उप वन मण्डल

RANGE OFFICER
Range - Chhal
Division - Dharamjaigarh

(AK. Diwan)
Project Manager
(ADB Project)
P.W.D. Bilaspur (C.G.)

BASE STATION POINT

S.No.	Pillar ID	LONGITUDE_DMS	LATTITUDE_DMS
1	Base Point1	E 83° 4'11.72"	N 22°12'23.18"

DGPS SURVEY POINTS

Kudrikhar Orange Area

Point#	Description	Latitude (DMS)	Longitude (DMS)
1	P-1	N22°12'40.90"	E83°04'10.60"
2	P-2	N22°12'42.61"	E83°04'12.34"
3	P-3	N22°12'38.16"	E83°04'16.88"
4	P-4	N22°12'35.94"	E83°04'18.81"
5	P-5	N22°12'34.90"	E83°04'18.67"
6	P-6	N22°12'30.25"	E83°04'18.76"
7	P-7	N22°12'29.84"	E83°04'18.67"
8	P-8	N22°12'29.22"	E83°04'17.14"
9	P-9	N22°12'27.21"	E83°04'16.31"
10	P-10	N22°12'24.46"	E83°04'11.70"
11	P-11	N22°12'24.69"	E83°04'04.52"
12	P-12	N22°12'24.53"	E83°04'03.94"
13	P-13	N22°12'23.18"	E83°04'03.20"
14	P-14	N22°12'22.28"	E83°04'03.12"
15	P-15	N22°12'22.00"	E83°04'02.73"
16	P-16	N22°12'22.22"	E83°03'58.06"
17	P-17	N22°12'19.88"	E83°03'47.92"
18	P-18	N22°12'19.24"	E83°03'47.05"
19	P-19	N22°12'17.01"	E83°03'44.73"
20	P-20	N22°12'17.24"	E83°03'42.20"
21	P-21	N22°12'18.40"	E83°03'42.74"
22	P-22	N22°12'23.59"	E83°03'42.58"
23	P-23	N22°12'26.44"	E83°04'04.12"
24	P-24	N22°12'28.29"	E83°04'11.32"
25	P-25	N22°12'29.70"	E83°04'12.34"
26	P-26	N22°12'32.75"	E83°04'14.01"
27	P-27	N22°12'36.72"	E83°04'13.81"

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धरमजयगढ़ वन मण्डल
जिला रायगढ़ (छ.ग.)

BASE STATION POINT

S.No.	Pillar ID	LONGITUDE_DMS	LATTITUDE_DMS
1	Base Point2	E 83° 5'40.26"	N 22°21'6.54"

DGPS SURVEY POINTS

Sithra Orange Area

Point#	Description	Latitude (DMS)	Longitude (DMS)
1	P-1	N22°21'07.38"	E83°05'33.93"
2	P-2	N22°21'08.78"	E83°05'36.42"
3	P-3	N22°21'09.49"	E83°05'38.86"
4	P-4	N22°21'09.58"	E83°05'41.81"
5	P-5	N22°21'10.51"	E83°05'44.96"
6	P-6	N22°21'05.11"	E83°05'45.18"
7	P-7	N22°21'04.65"	E83°05'43.28"
8	P-8	N22°21'02.03"	E83°05'40.80"
9	P-9	N22°21'00.22"	E83°05'39.41"
10	P-10	N22°21'00.33"	E83°05'38.23"
11	P-11	N22°21'00.38"	E83°05'36.71"
12	P-12	N22°21'00.46"	E83°05'34.83"
13	P-13	N22°21'01.82"	E83°05'35.13"
14	P-14	N22°21'04.44"	E83°05'35.53"
15	P-15	N22°21'05.09"	E83°05'35.56"
16	P-16	N22°21'06.51"	E83°05'34.97"
17	P-17	N22°21'07.34"	E83°05'33.98"


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धरमजयगढ़ उप वन मण्डल

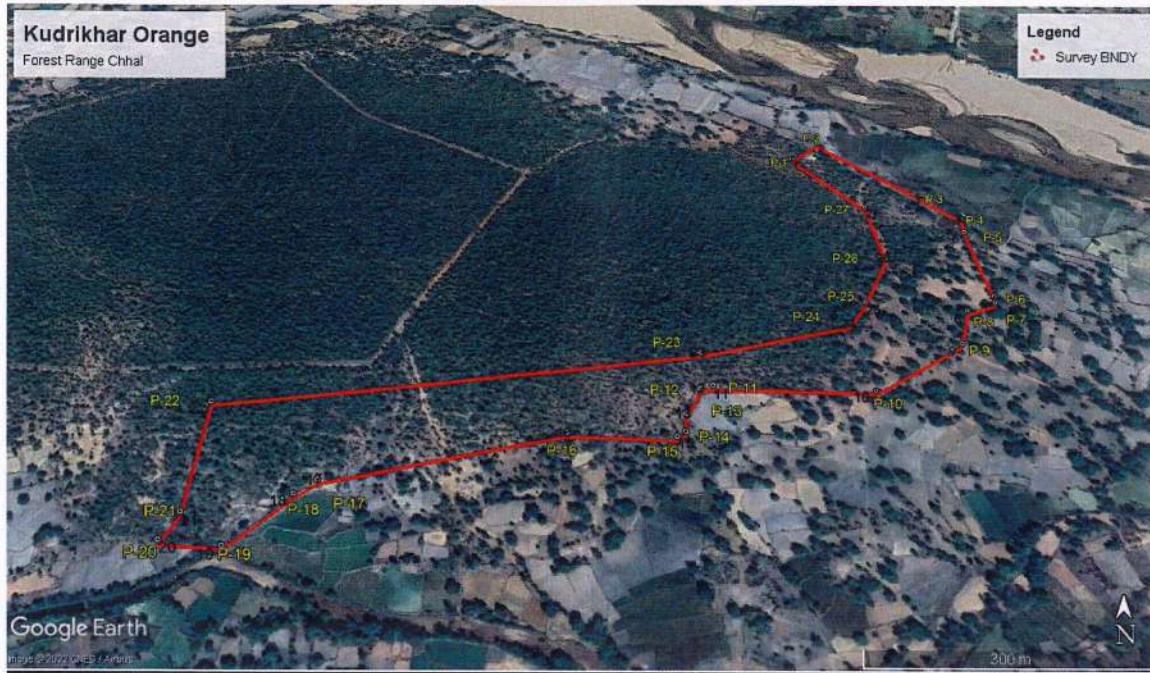

RANGE OFFICER
Range - Chhal
Division - Dharamjaigarh


(AK. Diwan)
Project Manager
(ADB Project)
P.W.D., Bilaspur (C.G.)


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Kudrikhar Ornage Area

Google Image



Sithra Ornage Area

Google Image


'उप वन मण्डलाधिकारी
धरमजयगढ़ उप वन मण्डल


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(ADB Project)
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धरमजयगढ़ वन मण्डल
जिला रायगढ़ (छ.ग.)

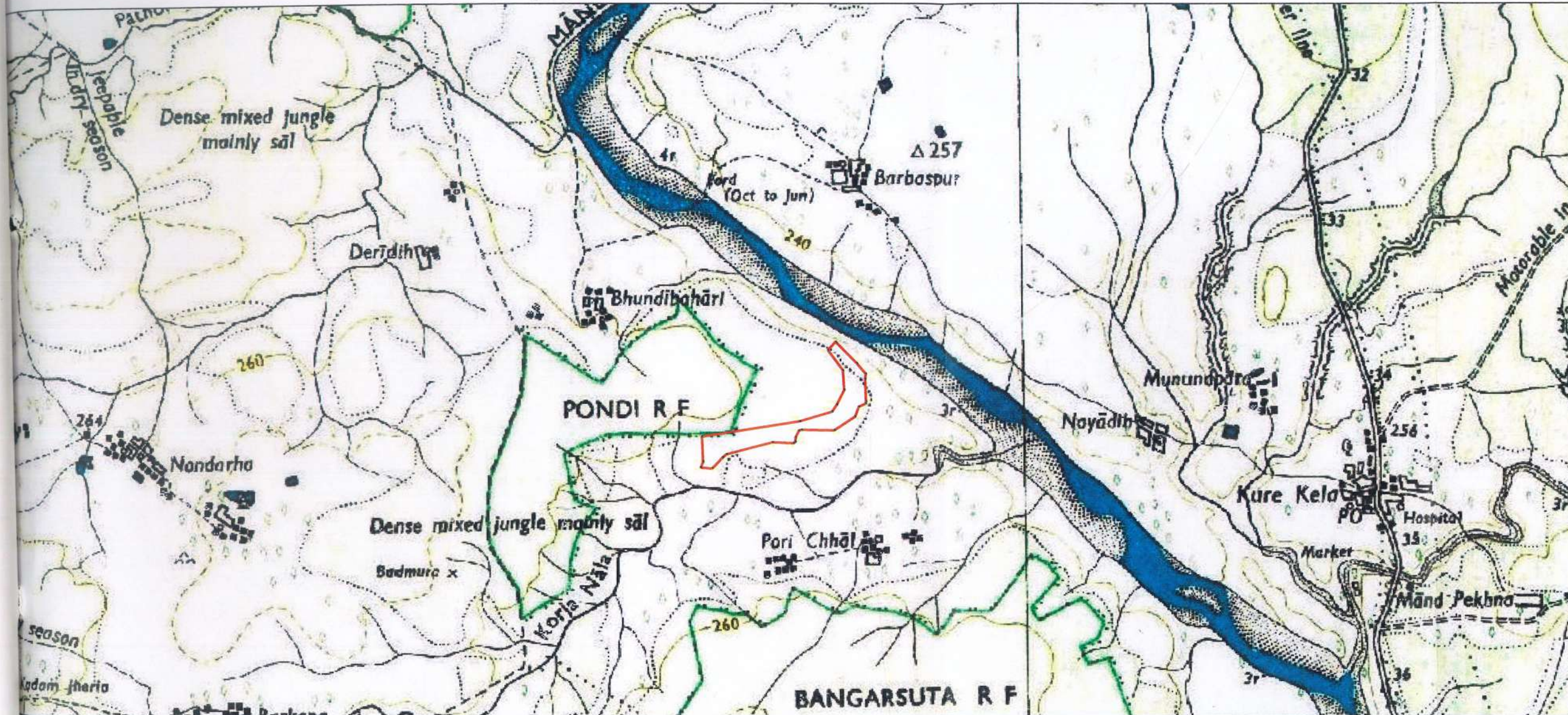
GEO-REFERENCED MAP SURVEY SITE FOREST DIVISION DHARAMJAIGARH, DISTRICT- RAIGARH

Geo-graphical Co-ordinate system WGS 1984

Projected Co-ordinates Systems WGS 1984 UTM ZONE 44N

TOPOSHEET NO. 64N/4

DGPS SURVEY POINTS



Point#	Description	Latitude (DMS)	Longitude (DMS)
1	P-1	N22°12'40.90"	E83°04'10.60"
2	P-2	N22°12'42.61"	E83°04'12.34"
3	P-3	N22°12'38.16"	E83°04'16.88"
4	P-4	N22°12'35.94"	E83°04'18.81"
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9	P-9	N22°12'27.21"	E83°04'16.31"
10	P-10	N22°12'24.46"	E83°04'11.70"
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12	P-12	N22°12'24.53"	E83°04'03.94"
13	P-13	N22°12'23.18"	E83°04'03.20"
14	P-14	N22°12'22.28"	E83°04'03.12"
15	P-15	N22°12'22.00"	E83°04'02.73"
16	P-16	N22°12'22.22"	E83°03'58.06"
17	P-17	N22°12'19.88"	E83°03'47.92"
18	P-18	N22°12'19.24"	E83°03'47.05"
19	P-19	N22°12'17.01"	E83°03'44.73"
20	P-20	N22°12'17.24"	E83°03'42.20"
21	P-21	N22°12'18.40"	E83°03'42.74"
22	P-22	N22°12'23.59"	E83°03'42.58"
23	P-23	N22°12'26.44"	E83°04'04.12"
24	P-24	N22°12'28.29"	E83°04'11.32"
25	P-25	N22°12'29.70"	E83°04'12.34"
26	P-26	N22°12'32.75"	E83°04'14.01"
27	P-27	N22°12'36.72"	E83°04'13.81"

LEGEND
SURVEY BOUNDARY
DGPS SURVEY POINTS



500 1000 1500

Area Details

SL_No	Village	Khasra No	Status of Forest	Range	Division	District	Area in Ha.
1		36/1	Orange Area	Chhal	Dharamjaigarh	Raigarh	16.699

Dharamjaigarh Forest Division
Geo Referenced map

**Dgps survey of CA area for the work
Rehabilitation and upgradation of
Dharamjaigarh - Kapu road , District Raigarh
Forest Division: Dharamjaigarh
Range : chaal
Narangi Vankhand : Kudhrikhar
Village : Ponichal
Orange Area**

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धरमजयगढ़ उप वन मण्डल

(AK. Diwan)
Project Manager
(ADB Project)
P.W.D. Bilaspur(C.G.)

RANGE OFFICER
Range - Chhal
Division - Dharamjaigarh

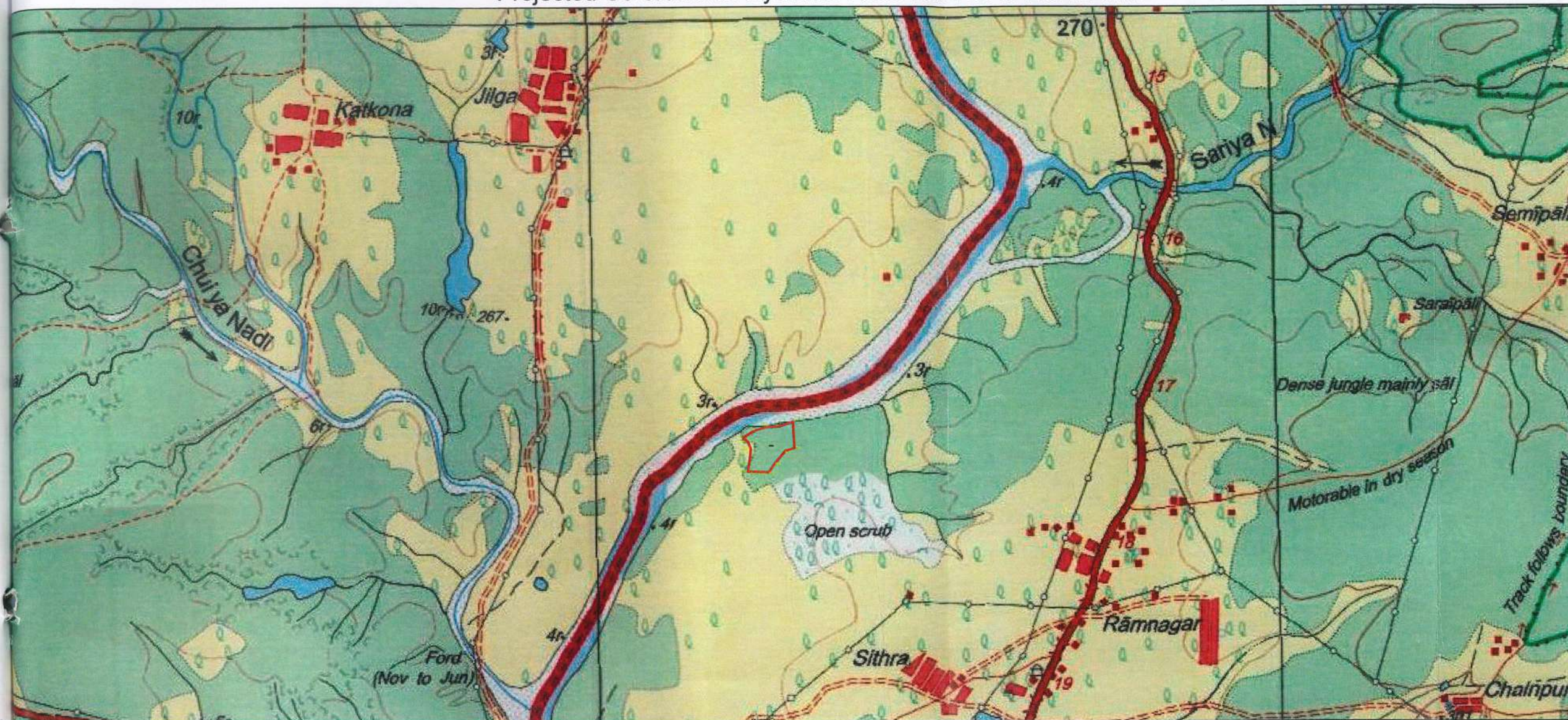
GEO-REFERENCED MAP SURVEY SITE FOREST DIVISION DHARAMJAIGARH, DISTRICT- RAIGARH

Geo-graphical Co-ordinate system WGS 1984

Projected Co-ordinates Systems WGS 1984 UTM ZONE 44N

TOPOSHEET NO. 64N/3

DGPS SURVEY POINTS



Point#	Description	Latitude (DMS)	Longitude (DMS)
1	P-1	N22°21'07.38"	E83°05'33.93"
2	P-2	N22°21'08.78"	E83°05'36.42"
3	P-3	N22°21'09.49"	E83°05'38.86"
4	P-4	N22°21'09.58"	E83°05'41.81"
5	P-5	N22°21'10.51"	E83°05'44.96"
6	P-6	N22°21'05.11"	E83°05'45.18"
7	P-7	N22°21'04.65"	E83°05'43.28"
8	P-8	N22°21'02.03"	E83°05'40.80"
9	P-9	N22°21'00.22"	E83°05'39.41"
10	P-10	N22°21'00.33"	E83°05'38.23"
11	P-11	N22°21'00.38"	E83°05'36.71"
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13	P-13	N22°21'01.82"	E83°05'35.13"
14	P-14	N22°21'04.44"	E83°05'35.53"
15	P-15	N22°21'05.09"	E83°05'35.56"
16	P-16	N22°21'06.51"	E83°05'34.97"
17	P-17	N22°21'07.34"	E83°05'33.98"

LEGEND
SURVEY BOUNDARY
DGPS SURVEY POINTS



0 500 1000 1500

Area Details

SL_No	Village	Khasra No.	Status of Forest Land	Range	Division	District	Area in Ha.
2	Sithra	69\1	Orange Area	Chhal	Dharamjaigarh	Raigarh	6.538

वन मण्डलाधिकारी
धरमजयगढ़ वन मण्डल
जिला रायगढ़ (छ.ग.)

Dharamjaigarh Forest Division
Geo Referenced map

**Dgps survey of CA area for the work
Rehabilitation and upgradation of
Dharamjaigarh - Kapu road , District Raigarh**
Forest Division: Dharamjaigarh
Range : chaal
Narangi Vankhand : Kudhrikhar
Village : Sithra
Orange Area

उप वन मण्डलाधिकारी
धरमजयगढ़ उप वन मण्डल

(AK. Diwan)
Project Manager
(ADB Project)
P.W.D. Bilaspur(C.G.)

RANGE OFFICER
Range - Chhal
Division - Dharamjaigarh

MADHYA PRADESH

FIRST EDITION

Magnetic Variation from True North about 1° West in 1970.
(Decreasing by about 1' annually)

No. 64 N

BILASPUR & RAIGARH DISTRICTS.

Surveyed 1967-68.



INDEX TO SHEETS

64/1	64/2	64/3
64/4	64/5	64/6
64/7	64/8	64/9

INDEX TO SHEETS

64/1	64/2	64/3
64/4	64/5	64/6
64/7	64/8	64/9

INDEX TO SHEETS

64/1	64/2	64/3
64/4	64/5	64/6
64/7	64/8	64/9

HEIGHTS & CONTOURS IN METRES
CONTOUR INTERVAL 20 METRES

*Water features are shown in blue where they generally contain water.
*Cultivated areas are coloured yellow.
The interior boundaries of areas of reserved or protected forests are shown by green lines.

Contours are approximate.
A rounded height, or represents the approximate height in metres, between the top and bottom of a steep slope.
Wooded areas are coloured green. Scattered trees and other vegetation are in green, and prominent scattered trees are in black.

*Not applicable.

The triangulated heights and contours in this sheet have not been adjusted to the heights of the surveyed benchmarks and may not be strictly in accordance with them.

REFERENCE
K. English



PRINTED AT THE 104 HINDI PRINTING, GROUP OF SURVEY OF INDIA

Towns or villages inhabited over 1000	1:50,000
Temples, Churches, Mosques, etc.	1:50,000
Light houses, etc.	1:50,000
Vine, etc.	1:50,000
Point of interest	1:50,000
Boundary, international	1:50,000
Boundary, district	1:50,000
Boundary, village	1:50,000
Height, triangulated station	1:50,000
Height, spot	1:50,000
Post office	1:50,000
Post office, sub post office	1:50,000
Post office, telegraph office	1:50,000
Post office, telegraph office, combined office	1:50,000
Post office, telegraph office, combined office, police station	1:50,000
Post office, telegraph office, combined office, police station, P.W.D. office	1:50,000
Post office, telegraph office, combined office, police station, P.W.D. office, N.C.D. office	1:50,000

REFER TO THIS MAP AS 1:50,000
SHEET 64 N/4 FIRST EDITION

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RANGE OFFICER
Range - Chhal
Division - Dharamjaigarh

(AK. Diwan)
Project Manager
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चप वन मंडलाधिकारी
धरमजागर उप वन मंडल

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धरमजागर उप वन मंडल
पिपरा चण्डिका (म.प्र.)



निर्माण के लिए नहीं NOT FOR EXPORT

OPEN SERIES
MAP

No. F44L3

Scale 1:50,000

F44K14 (64J/14)	F44L2 (64N/2)	F44L6 (64N/6)
Korba CHHATTISGARH F44K15 (64J/15)	F44L3 (64N/3)	F44L7 (64N/7) Raigarh CHHATTISGARH
F44K16 (64J/16) Jangli-Champa CHHATTISGARH	F44L4 (64N/4)	F44L8 (64N/8)

1 Surguja, CHHATTISGARH.
2 Jashpur, CHHATTISGARH.

भारतीय सर्वेक्षण विभाग

SURVEY OF INDIA

1st Edition 2011.

Price: Rs.118/-

CONVENTIONAL SYMBOLS

Express highway: with toll; with bridge; with distance stone	...
Roads, metalled: according to importance	...
Unmetalled road: Cart-track; Pack-track with pass; Foot-path	...
Ships: with track in bay; undredged; Canal	...
Dams: masonry or rock-fill; earthen; Weir	...
River: dry with water channel; with island & rocks; Tidal river	...
Submerged rocks; Shoal; Swamp; Reefs	...
Wells: lined; unlined; Tube-well; Spring; Tank; perennial; dry	...
Embankments: road or rail; tank; Broken ground	...
Railways: broad gauge; double; single with station; under constn.	...
Mineral line or tramway; Kin. Cutting with tunnel	...
Contours with sub-features. Rocky slopes. Cliffs	...
Land features: (1) flat; (2) sand-hills/permanent; (3) dunes/shifting	...
Towns or Villages: inhabited; deserted; Fort	...
Huts: permanent; temporary; Tower; Antiquities	...
Temple; Chhat; Church; Mosque; Jagin; Tomb; Graves	...
Lighthouse; Lightship; Buoy; lighted; unlighted; Anchorage	...
Mine: Vene on Indica; Grass; Scrub	...
Palms: palmyra; other; Plantain; Conifer; Bamboo; Other trees	...
Areas: cultivated; wooded; Surveyed tree	...
Boundary: international	...
state: demarcated; undemarcated	...
district: subdivided; taluk or taluk; forest	...
Boundary pillars: surveyed; unlocated	...
Heights: triangulated; station; point; approximate	...
BM 63-3	...
BM 62-3	...
BM 61-3	...
BM 60-3	...
BM 59-3	...
BM 58-3	...
BM 57-3	...
BM 56-3	...
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REFERENCE

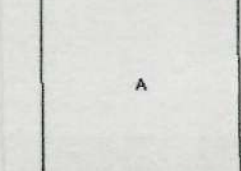
FWO: Public Works Department.

NOTES :-

Heights are in metres and above Indian mean sea level.
Contours are approximate.
A relative height, Δ , represents the approximate height, in metres, between the top and bottom of a steep slope.
Tanks shown dry in this area usually contain water from July to December.
Unmetalled roads and cart-tracks in this sheet are generally motorable in dry season. Permission to use these along canals is required from irrigation authorities.

COMPILATION INDEX

A. Surveyed during 1967-68. Updated for major details during 2004-05.



Projection - UTM Datum - WGS 84

Magnetic Variation from True North about $\frac{1}{2}$ West in 2005.
(Decreasing by about 1' annually).

1:50,000

Metres 1000 500 0 1 2 3 Kilometres

CONTOUR INTERVAL 20 METRES

For further details about this map, please contact

Director

Chhattisgarh Geo-Spatial Data Centre

Survey of India, Pachiguda Naka

Raipur.

WEBSITE - www.surveyofindia.gov.in



रेंज ऑफिसर
Range Officer
Range - Chhal
Division - Dharamjaigarh
Project Manager
(ADB Project)
W.D. Bilaspur
PRINTED AT THE SOUTHERN PRINTING GROUP OF SURVEY OF INDIA

DGPS SURVEY REPORT

FOR

Rehabilitation & Upgrading of Dharamjaygarh – kapu Road

DHARAMJAYGARHFOREST DIVISION

AREA :10.465 Ha.



PREPARED BY :
SAN SURVEY ENGINEERING
HOOGLY (W.B.)
& SS ENGINEERING SOLUTIONS
RAIPUR (C.G.)

Submitted by
PROJECT MANAGER
CSRSP, PWD, BILASPUR

To
DIVISIONAL FOREST OFFICER
DHARAMJAYGARH FOREST DIVISION

INTRODUCTION

Ministry of Environment and Forests, Govt. of India vide their circular No.F.No.-11-9/98-FC, dated 08-07-2011 have stipulated that to ensure accurate delineation of forest area proposed to be diverted for non-forestry purposes under Section-2 of Forest Conservation Act, 1980 the diversion proposal under Forest Conservation Act shall be accompanied by DGPS/ETS surveyed maps of the forest land proposed for diversion and for Compensatory Afforestation.

DGPS/ETS Survey Guidelines:

DGPS survey is undertaken in two methods; Real Time Kinetic mode and Rapid Static mode. In both the methods, primary control points (PCPs) are required to be set up before taking up detailed survey on all pillar positions that compose the forest area.

WHAT IS DGPS AND WHY USE IT?

Differential Global Positioning System (DGPS) is an enhancement to Global Positioning System that provides improved location accuracy, from the 15-meter nominal GPS accuracy to about 10 cm in case of the best implementations. DGPS refers to using a combination of receivers and satellites to reduce/eliminate common receiver based and satellite based errors reduce orbit errors reduce ionospheric and tropospheric errors reduce effects of SA eliminate satellite and receiver clock errors improve accuracy significantly 100's of metres to metres to centimetres to millimetres. DGPS uses one or several (network) fixed ground based reference stations (in known locations).

The base station compares its own known location, to that computed from a GPS receiver.

Any difference is then broadcast as a correction to the user.

Correction signals can be broadcast either from ground stations, or via additional satellites. These services are privately owned and usually require a user subscription.

Methodology

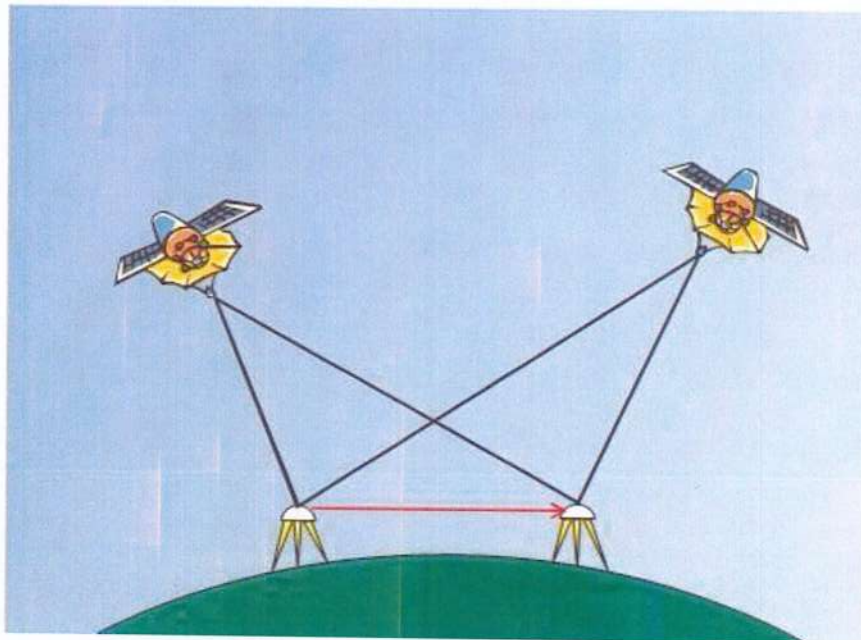
Here for survey of road side forest area recognized for the work **Widening & Upgrading to 2lane of Dharamjaygarh to Kapu road, District- Raigarh(C.G)**.DGPS survey is undertaken in Real Time Kinetic Mode (RTK).

a. Establishment of Primary Control Points (Base Stations):

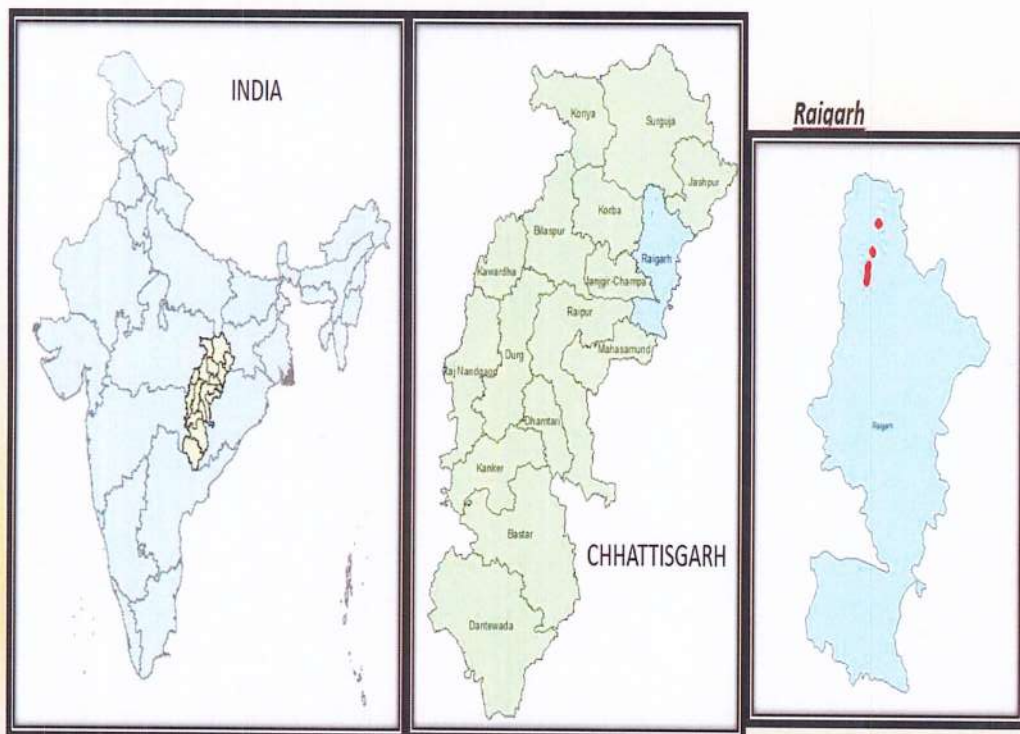
Two nos. of Primery control point (Base Station) has been established within the area and their Geo coordinates are taken with the help of Dual frequency DGPS survey machine through static mode of simultaneous and uninterrupted observation of 2.5 Hrs.

b. Geo-coordinates of other pillar positions:

The geo-coordinates of other pillar positions (SCPs) are determined through RTK mode of observations , with reference to the Base Stations with the help of Dual frequency DGPS survey machine in kinetic mode.



Location Plan





कार्यालय कलेक्टर (भू - अभिलेख शाखा) जिला रायगढ़ (छ0ग0)

क्रमांक 951 / भू.अ.लि./2019
पति.

रायगढ़ दिनांक 25/07/2019

सचिव

छ.ग. शासन

राजस्व एवं आपदा प्रबंधन विभाग

मंत्रालय महानदी भवन नया रायपुर (छ.ग.)

विषय :- छ0ग0 राज्य सड़क परियोजना (ए.डी.बी. लोन -3) के अंतर्गत धरमजयगढ़ कापू मार्ग के उन्नयन एवं पुनर्निर्माण कार्य में आने वाले राजस्व वन भूमि के गैर वानिकी प्रयोजन हेतु अनापत्ति प्रमाण पत्र वावत्।

संदर्भ :- परियोजना प्रबंधक (ए.डी.बी लोन 3) छत्तीसगढ़ विकास परियोजना लो. नि. वि. बिलासपुर का ज्ञापन क्रमांक 350/तक/ल-3/ए.डी.बी../2017-18 बिलासपुर दिनांक 08/3/2018।

.....00.....

विषयांतर्गत संदर्भित पत्र का अवलोकन करने का कष्ट करें। परियोजना प्रबंधक (ए.डी. बी. लोन -3) छत्तीसगढ़ विकास परियोजना लो. नि. वि. बिलासपुर द्वारा रायगढ़ जिले के धरमजयगढ़ - कापू मार्ग कुल लंबाई 32.87 कि. मी. के उन्नयन एवं पुनर्निर्माण कार्य के लिये प्रस्तावित ए.डी. बी. परियोजना को स्वीकृति प्रदान किये जाने के फलस्वरूप उक्त परियोजना में प्रभावित कुल राजस्व वन भूमि 4.832 हे. जो अभिलेख में बड़े झाड़ के जंगल मद में दर्ज है को गैर वानिकी प्रयोजन वन संरक्षण अधिनियम 1980 के तहत अनापत्ति चाही गई है। आवेदित भूमि के संबंध में अनुविभागीय अधिकारी (राजस्व) धरमजयगढ़ द्वारा निम्नांकित भूमि के लिये आवेदक कंपनी को अनापत्ति प्रमाण पत्र प्रदाय किये जाने में किसी प्रकार का आपत्ति नहीं होने को लेख किया गया है।

क्रमांक	तहसील का नाम	ग्राम का नाम	राजस्व वन भूमि		प्रभावित रकबा (हे. मे)	भूमि का मद
			खसरा नंबर	कुल रकबा		
1	2	3	4	5	6	7
1	धरमजयगढ़	धरमजयगढ़	1303/1क/1	2.263	0.434	बड़े झाड़ का जंगल
			1304/1क/1	8.044	0.650	बड़े झाड़ का जंगल
			1310/1क/1	24.850	0.344	बड़े झाड़ का जंगल
			1311/1क/1	165.967	0.902	बड़े झाड़ का जंगल
2		मिरीगुड़ा	558/1क	12.031	0.830	बड़े झाड़ का जंगल
			558/9क	60.813	1.132	बड़े झाड़ का जंगल
			560/1क			
			209/1क	11.096	0.540	बड़े झाड़ का जंगल
महायोग		02	08		4.832	

अतः अनुविभागीय अधिकारी (रा.) धरमजयगढ़ के प्रतिवेदन के अनुसार प्ररनाधिन भू - खण्ड बड़े झाड़ के जंगल मद की भूमि को गैरवानिकी प्रयोजन हेतु व्यपवर्तन कर उपयोग में लाने के लिये वरिष्ठ कार्यालय को आवेदन देने पर इस कार्यालय को कोई आपत्ति नहीं है।

उपरोक्तानुसार अनापत्ति भेजने को तात्पर्य यह कदापी नही माना जावेगी की उपर्युक्त भूमि आवेदक कंपनी को हस्तांतरित करने का निर्णय लिया जा चुका है।

कलेक्टर

रायगढ़ (छ.ग.)

रायगढ़ दिनांक 25/07/2019

पृ.क्रमांक 951 'A' / भू.अ.लि. / 2019
प्रतिलिपी :-

- (1) वन मंडलाधिकारी वन मंडल धरमजयगढ़ को सूचनार्थ ।
- (2) कार्यालय परियोजना प्रबंधक (ए.डी.बी.प्रोजेक्ट) छ0ग0 सडक विकास लो. नि. वि. बिलासपुर (छ.ग.) की ओर सूचनार्थ ।

कलेक्टर

रायगढ़ (छ.ग.)

FrestArea Details					
Sr. No.	Forest Range	Division	Compartment No.	Forest Type	Area in Hectare
1	Dharamjaygarh	Dharamjaygarh	360	PF	0.213
2	Dharamjaygarh	Dharamjaygarh	355	PF	0.311
3	Dharamjaygarh	Dharamjaygarh	354	PF	0.626
4	Boro	Dharamjaygarh	641	RF	0.462
5	Boro	Dharamjaygarh	629	PF	0.486
6	Kapu	Dharamjaygarh	80	RF	1.762
7	Kapu	Dharamjaygarh	35	RF	1.773
				Total	5.633

DETAILS OF REVENUE FOREST AREA					
Sr.No.	District	Tehsil	Village	Khasra no.	Area in Hectare
1	Raigarh	Dharamjaygarh	Dharamjaygarh	1303/1K/1	0.434
2				1304/1K/1	0.65
3				1310/1K/1	0.344
4				1311/1K/1	0.902
5			Miriguda	558/1k	0.83
6				558/9k 560/1k	1.132
7				209/1K	0.54
				Total	4.832

PROTECTED FOREST	1.636
RESERVED FOREST	3.997
REVENUE FOREST	4.832
TOTAL FOREST AREA	10.465 Ha.

वन परिक्षेत्र अधिकारी वन परिक्षेत्र अधिकारी
परिक्षेत्र बोर्ड (सू.)

Project Manager
(ADB Project)
C.G. Road Development Project
P.W.D. Bilaspur (C.G.)

वन परिक्षेत्र अधिकारी
धरमजयगढ़

उपवन मण्डलाधिकारी
धरमजयगढ़, उपवन मण्डल

उप निमण्डलाधिकारी
जयपुरा उपमण्डल

वनमण्डलाधिकारी
धरमजयगढ़ वन मंडल

CO-ORDINATE LIST **Dharamjaygarh Forest Division**

Date of Survey March 6th to 8th 2018 Time 09:15 to 18:0

Base Station PF 360,355, 354		
Pillar Id	Latitude (DMS)	Longitude (DMS)
Base Station	N22°30'19.23"	E83°13'17.26"

DGPS SURVEY POINTS

PF 360		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PL1	N22°29'47.13"	E83°13'10.08"
PL2	N22°29'49.91"	E83°13'10.97"
PR1	N22°29'44.07"	E83°13'10.78"
PR2	N22°29'47.13"	E83°13'10.57"
PR3	N22°29'49.78"	E83°13'11.45"
PR4	N22°29'50.77"	E83°13'11.89"

PF 355		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PR5	N22°30'08.91"	E83°13'18.25"
PR6	N22°30'13.61"	E83°13'18.98"
PR7	N22°30'18.27"	E83°13'17.57"
PR8	N22°30'19.86"	E83°13'17.10"
PR9	N22°30'23.03"	E83°13'16.54"

PF 354		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PL10	N22°30'49.25"	E83°13'16.28"
PL11	N22°30'53.27"	E83°13'17.46"
PL12	N22°30'55.47"	E83°13'18.02"
PL13	N22°30'58.96"	E83°13'17.92"
PL14	N22°31'03.47"	E83°13'17.32"
PR10	N22°30'49.19"	E83°13'16.77"
PR11	N22°30'53.11"	E83°13'17.92"
PR12	N22°30'55.42"	E83°13'18.51"
PR13	N22°30'59.00"	E83°13'18.41"

PR14	N22°31'03.51"	E83°13'17.81"
Base Station RF 641,PF 629		
Pillar Id	Latitude (DMS)	Longitude (DMS)
Base Station	N22°33'59.31"	E83°14'39.39"

RF 641		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PL17	N22°33'43.01"	E83°14'43.63"
PL15	N22°33'40.78"	E83°14'46.98"
PL16	N22°33'41.70"	E83°14'44.11"
PL18	N22°33'47.85"	E83°14'43.05"
PL19	N22°33'49.49"	E83°14'42.39"
PR15	N22°33'41.22"	E83°14'47.11"
PR16	N22°33'41.97"	E83°14'44.50"
PR17	N22°33'43.11"	E83°14'44.12"
PR18	N22°33'47.94"	E83°14'43.54"
PR19	N22°33'49.65"	E83°14'42.85"

PF 629		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PL20	N22°33'51.70"	E83°14'41.66"
PL21	N22°33'54.54"	E83°14'40.47"
PL22	N22°33'56.97"	E83°14'39.36"
PL23	N22°34'00.82"	E83°14'38.87"
PR20	N22°33'51.78"	E83°14'42.14"
PR21	N22°33'54.79"	E83°14'40.88"
PR22	N22°33'57.08"	E83°14'39.84"
PR23	N22°34'00.80"	E83°14'39.36"
PR24	N22°34'02.30"	E83°14'39.51"
PR25	N22°34'04.20"	E83°14'39.72"

Base station RF 35, 80		
Pillar Id	Latitude (DMS)	Longitude (DMS)
Base station	N22°38'40.11"	E83°16'45.13"

RF 80		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PR26	N22°38'30.98"	E83°16'18.83"
PR27	N22°38'32.34"	E83°16'14.99"

PR28	N22°38'35.90"	E83°16'12.23"
PR29	N22°38'36.57"	E83°16'10.81"
PR30	N22°38'39.68"	E83°16'08.62"
PR31	N22°38'40.31"	E83°16'10.55"
PR32	N22°38'39.84"	E83°16'13.41"
PR33	N22°38'38.62"	E83°16'13.82"
PR34	N22°38'38.85"	E83°16'16.31"
PR35	N22°38'37.02"	E83°16'17.56"
PR36	N22°38'37.12"	E83°16'21.96"
PR37	N22°38'35.71"	E83°16'26.50"
PR38	N22°38'33.90"	E83°16'29.51"
PR39	N22°38'31.79"	E83°16'32.99"
PR40	N22°38'35.14"	E83°16'33.04"
PR41	N22°38'39.89"	E83°16'28.98"
PR42	N22°38'43.75"	E83°16'27.82"
PR43	N22°38'44.76"	E83°16'26.46"
PR44	N22°38'43.35"	E83°16'35.06"
PR45	N22°38'40.32"	E83°16'43.05"
PR47	N22°38'39.63"	E83°16'48.60"

RF 35		
Pillar Id	Latitude (DMS)	Longitude (DMS)
PL26	N22°38'30.69"	E83°16'18.44"
PL27	N22°38'32.12"	E83°16'14.55"
PL28	N22°38'35.46"	E83°16'12.06"
PL29	N22°38'36.30"	E83°16'10.42"
PL30	N22°38'39.73"	E83°16'08.13"
PL31	N22°38'40.76"	E83°16'10.59"
PL32	N22°38'40.16"	E83°16'13.76"
PL33	N22°38'38.88"	E83°16'14.23"
PL34	N22°38'39.31"	E83°16'16.35"
PL35	N22°38'37.49"	E83°16'17.59"
PL36	N22°38'37.57"	E83°16'22.03"
PL37	N22°38'36.08"	E83°16'26.79"
PL38	N22°38'34.26"	E83°16'29.82"
PL39	N22°38'32.13"	E83°16'32.66"
PL40	N22°38'35.29"	E83°16'32.58"
PL41	N22°38'39.79"	E83°16'28.51"

PL42	N22°38'43.37"	E83°16'27.55"
PL43	N22°38'44.98"	E83°16'26.03"
PL44	N22°38'43.70"	E83°16'35.38"
PL45	N22°38'40.78"	E83°16'43.08"
PL46	N22°38'40.08"	E83°16'48.63"

वन वनिकार अधिकारी वन परिक्षेत्र अधिकारी
परिक्षेत्र कोठे कम्प्यूटर (सा.)

Project Manager
(ADB Project)
C.Q. Road Development Project
P.W.D. Bilaspur (C.G.)

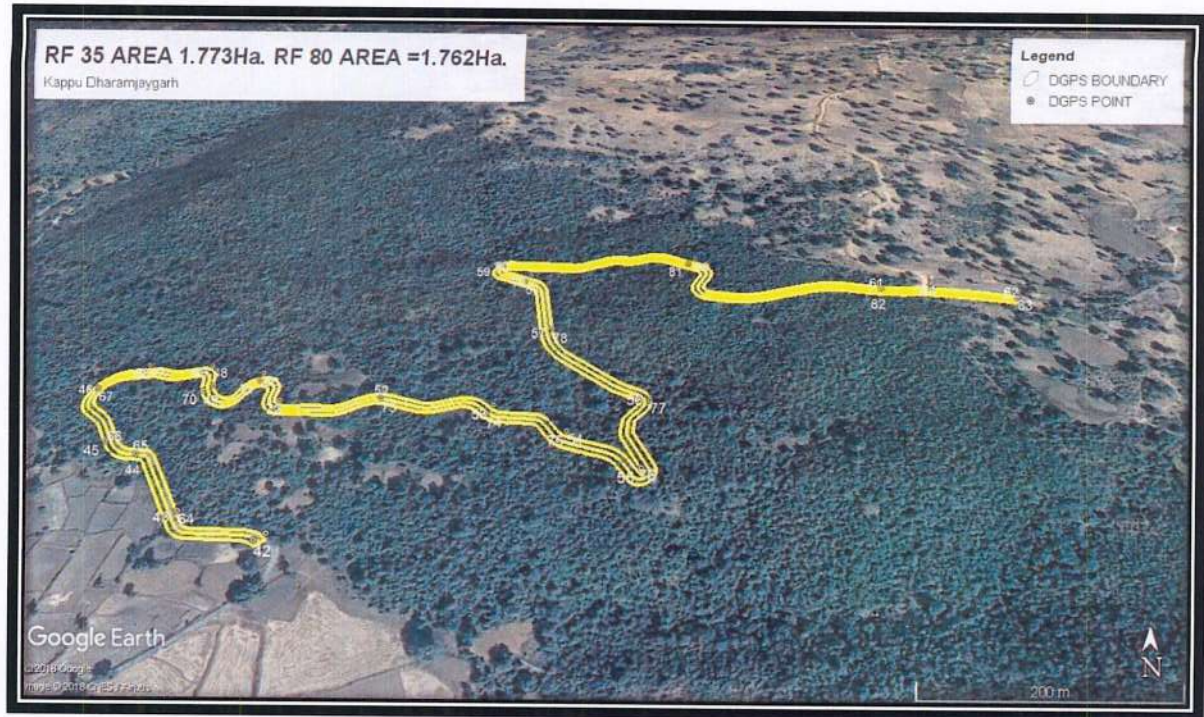
वन वनिकार अधिकारी
धरमजयगढ़

उपवन मण्डलाधिकारी
धरमजयगढ़, उपवन मण्डल

उप वनमण्डलाधिकारी
उपवन मण्डल

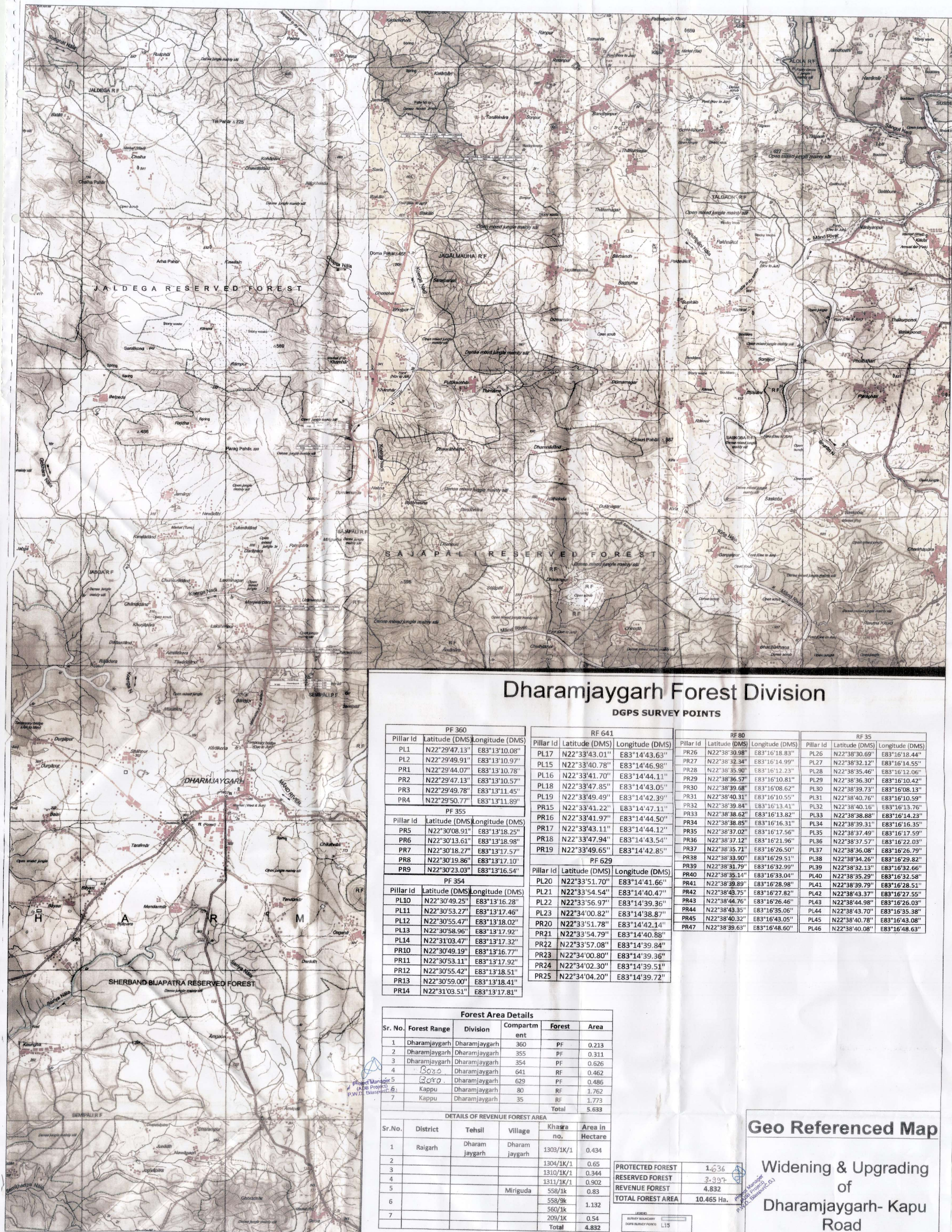
वनमण्डलाधिकारी
धरमजयगढ़ वन मंडल

Forest Area on Google Earth









Dharamjaygarh Forest Division

DGPS SURVEY POINTS

PF 360			RF 641			RF 80			RF 35		
Pillar Id	Latitude (DMS)	Longitude (DMS)	Pillar Id	Latitude (DMS)	Longitude (DMS)	Pillar Id	Latitude (DMS)	Longitude (DMS)	Pillar Id	Latitude (DMS)	Longitude (DMS)
PL1	N22°29'47.13"	E83°13'10.08"	PL17	N22°33'43.01"	E83°14'43.63"	PR26	N22°38'30.98"	E83°16'18.83"	PL26	N22°38'30.69"	E83°16'18.44"
PL2	N22°29'49.91"	E83°13'10.97"	PL15	N22°33'40.78"	E83°14'46.98"	PR27	N22°38'32.34"	E83°16'14.99"	PL27	N22°38'32.12"	E83°16'14.55"
PR1	N22°29'44.07"	E83°13'10.78"	PL16	N22°33'41.70"	E83°14'44.11"	PR28	N22°38'35.90"	E83°16'12.23"	PL28	N22°38'35.46"	E83°16'12.06"
PR2	N22°29'47.13"	E83°13'10.57"	PL18	N22°33'47.85"	E83°14'43.05"	PR29	N22°38'36.57"	E83°16'10.81"	PL29	N22°38'36.30"	E83°16'10.42"
PR3	N22°29'49.78"	E83°13'11.45"	PL19	N22°33'49.49"	E83°14'42.39"	PR30	N22°38'39.68"	E83°16'08.62"	PL30	N22°38'39.73"	E83°16'08.13"
PR4	N22°29'50.77"	E83°13'11.89"	PR15	N22°33'41.22"	E83°14'47.11"	PR31	N22°38'40.31"	E83°16'10.55"	PL31	N22°38'40.76"	E83°16'10.59"
PF 355			PR16	N22°33'41.97"	E83°14'44.50"	PR32	N22°38'39.84"	E83°16'13.41"	PL32	N22°38'40.16"	E83°16'13.76"
Pillar Id	Latitude (DMS)	Longitude (DMS)	PR17	N22°33'43.11"	E83°14'44.12"	PR33	N22°38'38.62"	E83°16'13.82"	PL33	N22°38'38.88"	E83°16'14.23"
PR5	N22°30'08.91"	E83°13'18.25"	PR18	N22°33'47.94"	E83°14'43.54"	PR34	N22°38'38.85"	E83°16'16.31"	PL34	N22°38'39.31"	E83°16'16.35"
PR6	N22°30'13.61"	E83°13'18.98"	PR19	N22°33'49.65"	E83°14'42.85"	PR35	N22°38'37.02"	E83°16'17.56"	PL35	N22°38'37.49"	E83°16'17.59"
PR7	N22°30'18.27"	E83°13'17.57"	PF 629			PR36	N22°38'37.12"	E83°16'21.96"	PL36	N22°38'37.57"	E83°16'22.03"
PR8	N22°30'19.86"	E83°13'17.10"	Pillar Id	Latitude (DMS)	Longitude (DMS)	PR37	N22°38'35.71"	E83°16'26.50"	PL37	N22°38'36.08"	E83°16'26.79"
PR9	N22°30'23.03"	E83°13'16.54"	PL20	N22°33'51.70"	E83°14'41.66"	PR38	N22°38'33.90"	E83°16'29.51"	PL38	N22°38'34.26"	E83°16'29.82"
PF 354			PL21	N22°33'54.54"	E83°14'40.47"	PR39	N22°38'31.79"	E83°16'32.99"	PL39	N22°38'32.13"	E83°16'32.66"
Pillar Id	Latitude (DMS)	Longitude (DMS)	PL22	N22°33'56.97"	E83°14'39.36"	PR40	N22°38'35.14"	E83°16'33.04"	PL40	N22°38'35.29"	E83°16'32.58"
PL10	N22°30'49.25"	E83°13'16.28"	PL23	N22°34'00.82"	E83°14'38.87"	PR41	N22°38'39.89"	E83°16'28.98"	PL41	N22°38'39.79"	E83°16'28.51"
PL11	N22°30'53.27"	E83°13'17.46"	PR20	N22°33'51.78"	E83°14'42.14"	PR42	N22°38'44.75"	E83°16'27.82"	PL42	N22°38'44.37"	E83°16'27.55"
PL12	N22°30'55.47"	E83°13'18.02"	PR21	N22°33'54.79"	E83°14'40.88"	PR43	N22°38'44.76"	E83°16'26.46"	PL43	N22°38'44.98"	E83°16'26.03"
PL13	N22°30'58.96"	E83°13'17.92"	PR22	N22°33'57.08"	E83°14'39.84"	PR44	N22°38'43.35"	E83°16'35.06"	PL44	N22°38'43.70"	E83°16'35.38"
PL14	N22°31'03.47"	E83°13'17.32"	PR23	N22°34'00.80"	E83°14'39.36"	PR45	N22°38'40.32"	E83°16'43.05"	PL45	N22°38'40.78"	E83°16'43.08"
PR10	N22°30'49.19"	E83°13'16.77"	PR24	N22°34'02.30"	E83°14'39.51"	PR47	N22°38'39.63"	E83°16'48.60"	PL46	N22°38'40.08"	E83°16'48.63"
PR11	N22°30'53.11"	E83°13'17.92"	PR25	N22°34'04.20"	E83°14'39.72"						
PR12	N22°30'55.42"	E83°13'18.51"									
PR13	N22°30'59.00"	E83°13'18.41"									
PR14	N22°31'03.51"	E83°13'17.81"									

Forest Area Details				
Sr. No.	Forest Range	Division	Compartment	Area
1	Dharamjaygarh	Dharamjaygarh	360	PF 0.213
2	Dharamjaygarh	Dharamjaygarh	355	PF 0.311
3	Dharamjaygarh	Dharamjaygarh	354	PF 0.626
4	Boro	Dharamjaygarh	641	RF 0.462
5	Boro	Dharamjaygarh	629	PF 0.486
6	Kappu	Dharamjaygarh	80	RF 1.762
7	Kappu	Dharamjaygarh	35	RF 1.773
			Total	5.633

DETAILS OF REVENUE FOREST AREA				
Sr.No.	District	Tehsil	Village	Area in Hectare
1	Raigarh	Dharamjaygarh	Dharamjaygarh	1303/1K/1 0.434
2				1304/1K/1 0.65
3				1310/1K/1 0.344
4				1311/1K/1 0.902
5		Miriguda		558/1k 0.83
6				558/9k 1.132
7				560/1k 0.54
			Total	4.832

PROTECTED FOREST	1.636
RESERVED FOREST	3.997
REVENUE FOREST	4.832
TOTAL FOREST AREA	10.465 Ha.

PROJECTED SURVEY BOUNDARY
DGPS SURVEY POINTS: L15

Geo Referenced Map

Widening & Upgrading
of
Dharamjaygarh- Kapu
Road

Project Manager
(ADB Project)
C.G. Road Development Project
P.W.D. Bilaspur(C.G.)

बनाम लालिकाठी
धरमजयगढ़ वन प्रभाग

ग. नवलपरासी-नामिकाठी
अन्तर्गत जंगल-विकास

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