DGPS / Total Station Survey Report

For

Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4- Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+500)

Katghora Forest Division

Protected? Orange Forest Land- 54.549 Ha

Revenue Forest Land- 29.093 Ha

Total Forest Land- 83.6421 Ha

Submitted To

DFO Katghora,

Korba, Chattishgarh

Submitted By

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
National Highways Authority Of India
(Ministry Of Road Transport & Highways Government Of India)
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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.

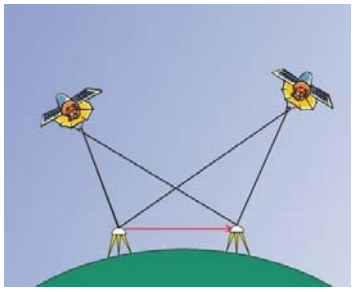
Why do we Need Differential GPS?

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 justby 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

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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 receivergenerated 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

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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 ¼-cycle shifts prior to RINEX file generation, if necessary, to facilitate the processing of such data.

• 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

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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–satellite clock offset + 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

1 Time (corr) = Time(r) - dT(r)

2 PR (corr) = PR (r) - dT(r)*c 3 phase (corr) = phase (r) - dT(r)*freq

Doppler:

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

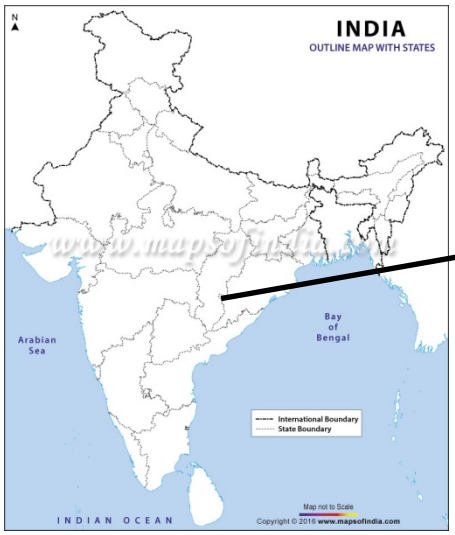
Satellite numbers:

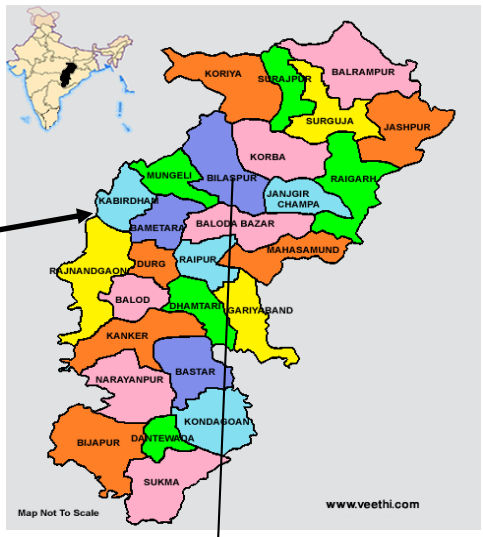
Starting with RINEX Version 2 the former two-digit satellite numbers **nn**are preceded by a one-character system identifier **s**. The same satellite system identifiers are also used in all header records when appropriate.

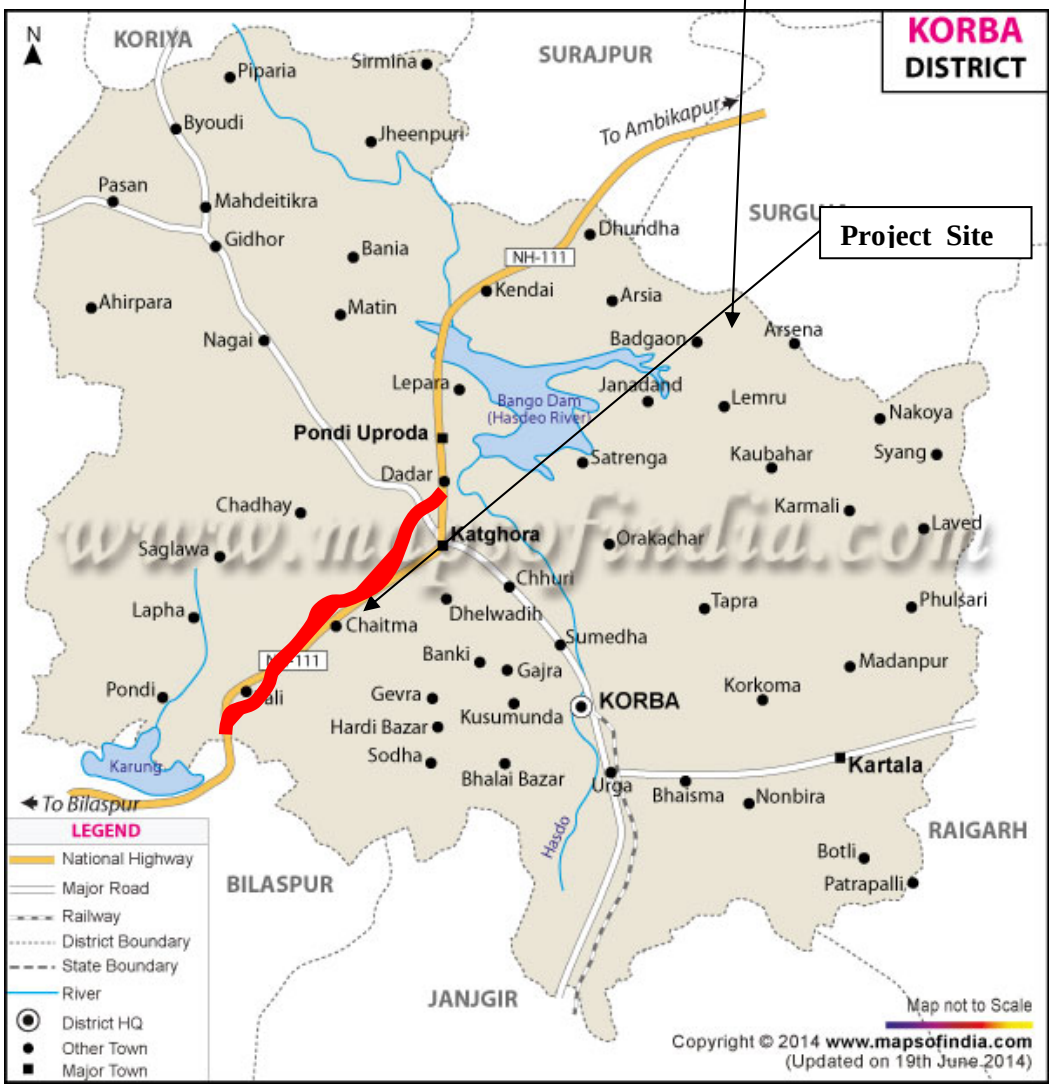
THE EXCHANGE OF RINEX FILES:

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







Diversion of 83.6421 Ha Forest Land for Rehabilitation and Upgrading to 4- Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 in the State of Chhattisgarh Pkg.-II(Km. 53+300 to Km 92+500)-Pathrapali to Katghora.

Details of Land Acquisition for Project

S.No.	Type of Land		Area (In Ha)	Area (In Ha)
1.	Non Forest Land		148.3639	148.3639
2.	Forest Land	Protected / Orange Forest	54.549	83.6421
3.		Revenue Forest	29.0931	
	Total Land Required		232.006	232.006

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Diversion of 83.6241 Ha Forest for Rehabilitation and Upgrading to 4- Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 in the State of Chhattisgarh Pkg.-II(Km. 53+300 to Km 92+500)-Pathrapali to Katghora.

Details of Forest Land

District	Tehsil	Village	Protected/ Orange Area Compartment No	Khasra No.	Area (in Ha)
Korba	Pali	Chepa		443/1	2.61
				419	0.895
				423	0.66
				34	2.9
				298/1	0.45
				32/1/1	0.202
				18	0.35
				1/1	0.202
		Bakasahi	P 152	986/1 k	1.07
				988	0.29
		Mungadih		565/1	2.14
				567/1k/1	0.52
				557	0.24
				296/1k	0.722
		Rahadih		104/1k	3.675
				113/1k	0.08
		Damiya	P 151	1/1	4.42
		Saraipali		14	1.916
			OA 385	9/1	3.354
			OA 383	124	3.705
		Pali	P 149	385/1	1.578
		Rangole		41/1/k	1.073
			OA 592	19/1	0.843
				4/1	7.654
				9/1, 19/6	0.0341
		Dhaurabhata	P 148	4/7k	0.328
		Makhanpur		3/1	7.202
		Dumarkachhar		121/1	2.7
		Banbandha		153	0.35
				139/1	0.202
				101	0.17
			P 143	3	2.19
				5/1	2.57
				128/1	0.143
		Kapot	P 143	727	0.376
				718/1	0.57

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			P 143	_	2.42
		Ghuichuwa		148	0.43
				126/1k	0.034
				125	0.05
				156/1	0.64
				163	0.11
				162/1k	0.95
				258/1	0.607
		Kanjipani		526	0.12
				607/1	1.05
				607/37	0.45
				607/55	0.137
				427	2.7
		Kutelamuda		5/1k	0.708
				44	0.036
				57	0.04
				96/1k	0.41
				707/1k	0.445
				713/1k	0.631
		Madanpur		628	0.267
				593/1	1.308
				631/1, 634/4	0.469
				684/1	0.081
				785/1, 785/2	0.02
	Katghora	Mohanpur		93	0.137
				100/1	0.998
				109/1/k	0.109
				71/1/k	0.12
	Pondi Uprora	Suttara	P 308	211/1	2.307
		Kapubahara		372/1k	4.209
				357/1k/1	0.75
				212/1/k/1, 212/1/k/2	0.202
		Jurali		246	0.012
				606/1	0.415
				610/4	0.202
	Katghora	Amakhokhara	OA 768	248/1 ch	1.684
		Total			**83.6421**

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Details of Forest Land as per DGPS Survey

Segment 1

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Chepa**	443/1	2.61	Revenue Forest
			419	0.895	Protected Forest
			423	0.66	Protected Forest
			Total	**4.165**	

Segment 1							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
53380	S1R1	635030.1	2466442		S1L1	634970.2	2466433
53400	S1R2	635030.5	2466462		S1L2	634970.1	2466453
53420	S1R3	635032	2466482		S1L3	634971	2466473
53440	S1R4	635034.7	2466502		S1L4	634972.8	2466493
53460	S1R5	635038.3	2466522		S1L5	634975.6	2466512
53480	S1R6	635043	2466541		S1L6	634979.2	2466532
53500	S1R7	635048.8	2466560		S1L7	634983.8	2466551
53520	S1R8	635055.6	2466579		S1L8	634989.2	2466571
53540	S1R9	635063.4	2466597		S1L9	634995.6	2466590
53560	S1R10	635071.8	2466616		S1L10	635002.8	2466608
53580	S1R11	635080.7	2466633		S1L11	635010.7	2466627
53600	S1R12	635089.9	2466651		S1L12	635019.3	2466645
53620	S1R13	635099.1	2466669		S1L13	635028.2	2466663
53640	S1R14	635108.3	2466687		S1L14	635037.4	2466680
53660	S1R15	635117.6	2466704		S1L15	635046.7	2466698
53680	S1R16	635126.8	2466722		S1L16	635055.9	2466716
53700	S1R17	635136.1	2466740		S1L17	635065.1	2466734
53720	S1R18	635145.3	2466758		S1L18	635074.4	2466751
53740	S1R19	635154.6	2466775		S1L19	635083.6	2466769
53760	S1R20	635163.8	2466793		S1L20	635092.9	2466787
53780	S1R21	635173	2466811		S1L21	635102.1	2466805
53800	S1R22	635182.2	2466829		S1L22	635111.4	2466822
53820	S1R23	635191.2	2466847		S1L23	635120.6	2466840

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53840	S1R24	635200	2466864		S1L24	635129.7	2466858
53860	S1R25	635208.6	2466883		S1L25	635138.7	2466876
53880	S1R26	635217	2466901		S1L26	635147.5	2466894
53900	S1R27	635225.3	2466919		S1L27	635156	2466912
53920	S1R28	635233.5	2466937		S1L28	635164.4	2466930
53940	S1R29	635241.8	2466955		S1L29	635172.7	2466948
53960	S1R30	635250	2466974		S1L30	635180.9	2466966
53980	S1R31	635258.2	2466992		S1L31	635189.2	2466985
54000	S1R32	635266.4	2467010		S1L32	635197.4	2467003
54020	S1R33	635274.7	2467028		S1L33	635205.6	2467021
54040	S1R34	635282.9	2467046		S1L34	635213.8	2467039
54060	S1R35	635291.1	2467065		S1L35	635222.1	2467058
54080	S1R36	635299.4	2467083		S1L36	635230.3	2467076
54100	S1R37	635307.6	2467101		S1L37	635238.5	2467094
54120	S1R38	635315.8	2467119		S1L38	635246.7	2467112
54140	S1R39	635324	2467138		S1L39	635255	2467130
54160	S1R40	635332.3	2467156		S1L40	635263.2	2467149
54180	S1R41	635340.5	2467174		S1L41	635271.4	2467167
54200	S1R42	635348.6	2467192		S1L42	635279.7	2467185
54220	S1R43	635356.6	2467211		S1L43	635287.9	2467203
54240	S1R44	635364.1	2467229		S1L44	635296	2467222
54260	S1R45	635371.1	2467248		S1L45	635303.8	2467240
54280	S1R46	635377.4	2467267		S1L46	635311.1	2467259
54300	S1R47	635383	2467286		S1L47	635317.8	2467278
54320	S1R48	635387.6	2467306		S1L48	635323.6	2467297
54340	S1R49	635391.3	2467325		S1L49	635328.4	2467316
54360	S1R50	635394	2467345		S1L50	635332.2	2467336
54380	S1R51	635395.9	2467365		S1L51	635334.9	2467356
54400	S1R52	635396.8	2467385		S1L52	635336.5	2467375
54420	S1R53	635396.9	2467405		S1L53	635337	2467395
54440	S1R54	635396	2467425		S1L54	635336.4	2467415
54460	S1R55	635394.1	2467445		S1L55	635334.8	2467435
54480	S1R56	635391.3	2467465		S1L56	635332.1	2467455
54500	S1R57	635387.6	2467484		S1L57	635328.3	2467475
54520	S1R58	635383	2467504		S1L58	635323.5	2467494
54540	S1R59	635377.5	2467523		S1L59	635317.7	2467513
54560	S1R60	635371.3	2467542		S1L60	635311.1	2467532
54580	S1R61	635364.6	2467561		S1L61	635304.1	2467551
54600	S1R62	635357.3	2467579		S1L62	635296.6	2467570
54620	S1R63	635349.8	2467598		S1L63	635289	2467588
54640	S1R64	635342.1	2467616		S1L64	635281.3	2467606
54660	S1R65	635334.4	2467635		S1L65	635273.6	2467625
54680	S1R66	635326.7	2467653		S1L66	635265.9	2467643

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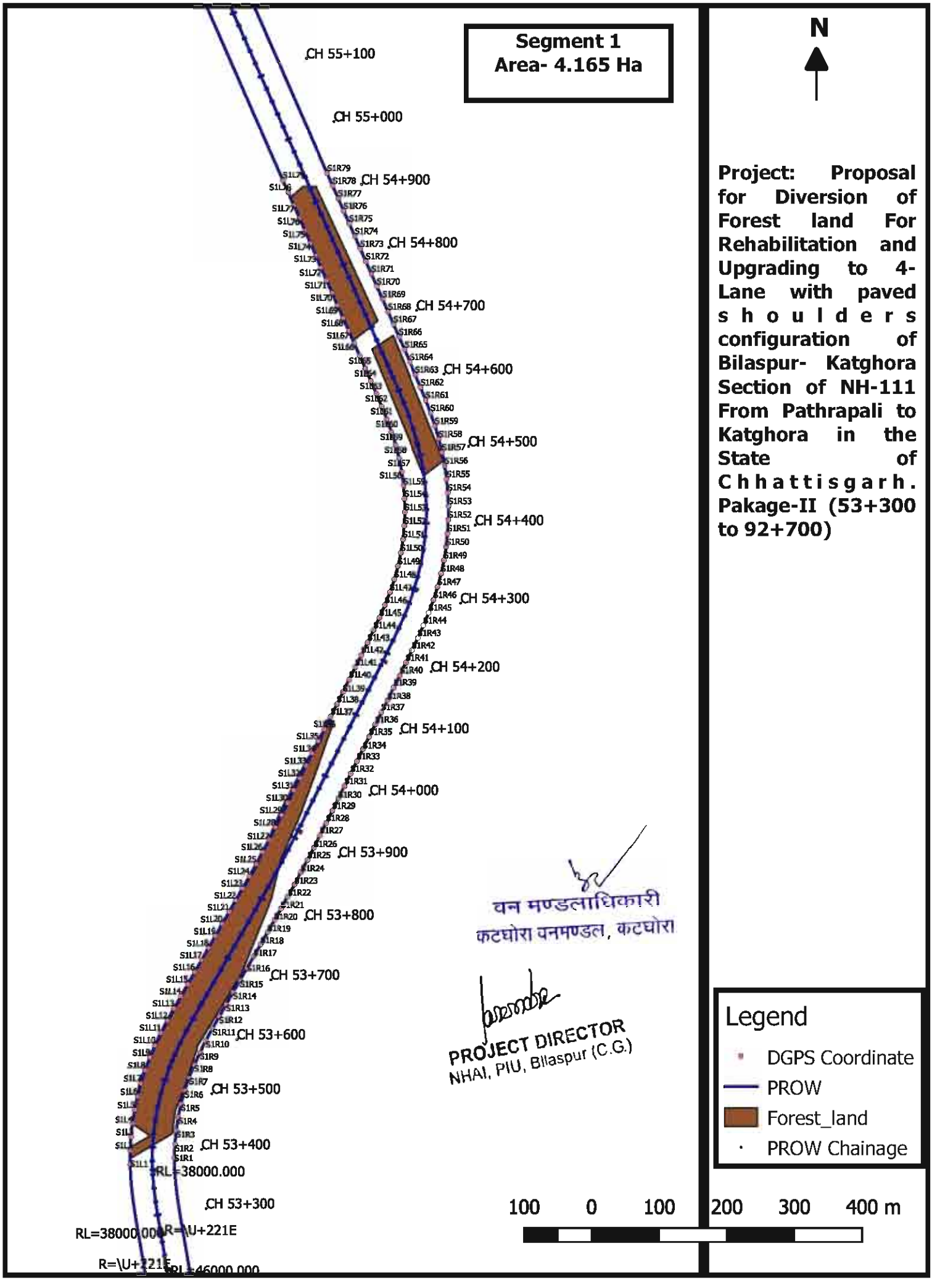
54700	S1R67	635319.1	2467672		S1L67	635258.2	2467662
54720	S1R68	635311.4	2467690		S1L68	635250.5	2467680
54740	S1R69	635303.7	2467709		S1L69	635242.9	2467699
54760	S1R70	635296	2467727		S1L70	635235.2	2467717
54780	S1R71	635288.3	2467746		S1L71	635227.5	2467736
54800	S1R72	635280.6	2467764		S1L72	635219.8	2467754
54820	S1R73	635272.9	2467783		S1L73	635212.1	2467773
54840	S1R74	635265.3	2467801		S1L74	635204.4	2467791
54860	S1R75	635257.6	2467820		S1L75	635196.7	2467810
54880	S1R76	635249.9	2467838		S1L76	635189.1	2467828
54900	S1R77	635242.2	2467856		S1L77	635181.4	2467847
54920	S1R78	635234.5	2467875		S1L78	635173.7	2467865
54940	S1R79	635226.8	2467893		S1L79	635166	2467883

PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)

वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा

DGPS Map


Segment 1
Area- 4.165 Ha
N
CH 55+100
CH 55+000
CH 54+900
CH 54+800
CH 54+700
CH 54+600
CH 54+500
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CH 54+300
CH 54+200
CH 54+100
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CH 53+800
CH 53+700
CH 53+600
CH 53+500
CH 53+400
CH 53+300
RL=38000.000
RL=38000.000
R=\U+221E
R=\U+221E
RL=46000.000
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
Legend
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 2

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Chepa**	34	2.9	Protected Forest
			298/1	0.45	Protected Forest
			32/1/1	0.202	Revenue Forest
			18	0.35	Revenue Forest
			1/1	0.202	Protected Forest
		Bakasahi	986/1 k	1.07	Protected Forest
			988	0.29	Protected Forest
		Mungadih	565/1	2.14	Protected Forest
			567/1k/1	0.52	Protected Forest
			Total	**8.124**	

Segment 2							
PROW Chainage	**Pillar ID**	**Right**			**Pillar ID**	**Left**	
		X	**Y**			**X**	**Y**
55440	S2R1	635034.7	2468355		S2L1	634973.9	2468345
55460	S2R2	635027	2468373		S2L2	634966.2	2468364
55480	S2R3	635019.3	2468392		S2L3	634958.5	2468382
55500	S2R4	635011.6	2468410		S2L4	634950.8	2468400
55520	S2R5	635003.9	2468429		S2L5	634943.1	2468419
55540	S2R6	634996.3	2468447		S2L6	634935.4	2468437
55560	S2R7	634988.6	2468466		S2L7	634927.7	2468456
55580	S2R8	634980.9	2468484		S2L8	634920.1	2468474
55600	S2R9	634973.3	2468503		S2L9	634912.7	2468493
55620	S2R10	634965.9	2468521		S2L10	634905.4	2468512
55640	S2R11	634958.8	2468540		S2L11	634898.4	2468530
55660	S2R12	634951.8	2468559		S2L12	634891.5	2468549
55680	S2R13	634945	2468578		S2L13	634884.8	2468568
55700	S2R14	634938.3	2468596		S2L14	634878.2	2468587
55720	S2R15	634931.8	2468615		S2L15	634871.7	2468606
55740	S2R16	634925.3	2468634		S2L16	634865.1	2468625

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PROJECT DIRECTOR
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55760	S2R17	634918.7	2468653		S2L17	634858.6	2468643
55780	S2R18	634912.2	2468672		S2L18	634852.1	2468662
55800	S2R19	634905.7	2468691		S2L19	634845.5	2468681
55820	S2R20	634899.1	2468710		S2L20	634839	2468700
55840	S2R21	634892.6	2468729		S2L21	634832.5	2468719
55860	S2R22	634886.1	2468748		S2L22	634825.9	2468738
55880	S2R23	634879.5	2468767		S2L23	634819.4	2468757
55900	S2R24	634873	2468785		S2L24	634812.9	2468776
55920	S2R25	634866.5	2468804		S2L25	634806.3	2468795
55940	S2R26	634859.9	2468823		S2L26	634799.8	2468814
55960	S2R27	634853.4	2468842		S2L27	634793.3	2468832
55980	S2R28	634846.9	2468861		S2L28	634786.7	2468851
56000	S2R29	634840.3	2468880		S2L29	634780.2	2468870
56020	S2R30	634833.8	2468899		S2L30	634773.7	2468889
56040	S2R31	634827.3	2468918		S2L31	634767.1	2468908
56060	S2R32	634820.7	2468937		S2L32	634760.6	2468927
56080	S2R33	634814.2	2468956		S2L33	634754.1	2468946
56100	S2R34	634807.7	2468975		S2L34	634747.5	2468965
56120	S2R35	634801.1	2468993		S2L35	634741	2468984
56140	S2R36	634794.6	2469012		S2L36	634734.5	2469003
56160	S2R37	634788	2469031		S2L37	634727.9	2469022
56180	S2R38	634781.5	2469050		S2L38	634721.4	2469040
56200	S2R39	634775	2469069		S2L39	634714.9	2469059
56220	S2R40	634768.4	2469088		S2L40	634708.3	2469078
56240	S2R41	634761.9	2469107		S2L41	634701.8	2469097
56260	S2R42	634755.4	2469126		S2L42	634695.3	2469116
56280	S2R43	634748.8	2469145		S2L43	634688.7	2469135
56300	S2R44	634742.3	2469164		S2L44	634682.2	2469154
56320	S2R45	634735.8	2469182		S2L45	634675.7	2469173
56340	S2R46	634729.2	2469201		S2L46	634669.1	2469192
56360	S2R47	634722.7	2469220		S2L47	634662.6	2469211
56380	S2R48	634716.2	2469239		S2L48	634656.1	2469229
56400	S2R49	634709.6	2469258		S2L49	634649.5	2469248
56420	S2R50	634703.1	2469277		S2L50	634643	2469267
56440	S2R51	634696.6	2469296		S2L51	634636.5	2469286
56460	S2R52	634690	2469315		S2L52	634629.9	2469305
56480	S2R53	634683.5	2469334		S2L53	634623.4	2469324
56500	S2R54	634677	2469353		S2L54	634616.8	2469343
56520	S2R55	634670.4	2469371		S2L55	634610.3	2469362
56540	S2R56	634663.9	2469390		S2L56	634603.8	2469381
56560	S2R57	634657.4	2469409		S2L57	634597.2	2469400
56580	S2R58	634650.8	2469428		S2L58	634590.7	2469418
56600	S2R59	634644.3	2469447		S2L59	634584.2	2469437

वन मण्डलाधिकारी
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56620	S2R60	634637.8	2469466		S2L60	634577.6	2469456
56640	S2R61	634631.2	2469485		S2L61	634571.1	2469475
56660	S2R62	634624.7	2469504		S2L62	634564.6	2469494
56680	S2R63	634618.2	2469523		S2L63	634558	2469513
56700	S2R64	634611.6	2469542		S2L64	634551.5	2469532
56720	S2R65	634605.1	2469560		S2L65	634545	2469551
56740	S2R66	634598.6	2469579		S2L66	634538.4	2469570
56760	S2R67	634592	2469598		S2L67	634531.9	2469589
56780	S2R68	634585.5	2469617		S2L68	634525.4	2469607
56800	S2R69	634579	2469636		S2L69	634518.8	2469626
56820	S2R70	634572.4	2469655		S2L70	634512.3	2469645
56840	S2R71	634565.9	2469674		S2L71	634505.8	2469664
56860	S2R72	634559.4	2469693		S2L72	634499.2	2469683
56880	S2R73	634552.8	2469712		S2L73	634492.7	2469702
56900	S2R74	634546.3	2469731		S2L74	634486.2	2469721
56920	S2R75	634539.8	2469750		S2L75	634479.6	2469740
56940	S2R76	634533.2	2469768		S2L76	634473.1	2469759
56960	S2R77	634526.7	2469787		S2L77	634466.6	2469778
56980	S2R78	634520.2	2469806		S2L78	634460	2469797
57000	S2R79	634513.6	2469825		S2L79	634453.5	2469815
57020	S2R80	634507.1	2469844		S2L80	634447	2469834
57040	S2R81	634500.6	2469863		S2L81	634440.4	2469853
57060	S2R82	634494	2469882		S2L82	634433.9	2469872
57080	S2R83	634487.5	2469901		S2L83	634427.4	2469891
57100	S2R84	634481	2469920		S2L84	634420.8	2469910
57120	S2R85	634474.4	2469939		S2L85	634414.3	2469929
57140	S2R86	634467.9	2469957		S2L86	634407.8	2469948
57160	S2R87	634461.4	2469976		S2L87	634401.3	2469967
57180	S2R88	634455.1	2469995		S2L88	634395.1	2469986
57200	S2R89	634449.1	2470014		S2L89	634389.3	2470005
57220	S2R90	634443.4	2470034		S2L90	634383.8	2470024
57240	S2R91	634438.1	2470053		S2L91	634378.5	2470043
57260	S2R92	634433.1	2470072		S2L92	634373.6	2470063
57280	S2R93	634428.4	2470092		S2L93	634369	2470082
57300	S2R94	634424.1	2470111		S2L94	634364.7	2470102
57320	S2R95	634420.1	2470131		S2L95	634360.8	2470121
57340	S2R96	634416.4	2470150		S2L96	634357.1	2470141
57360	S2R97	634413.1	2470170		S2L97	634353.8	2470161
57380	S2R98	634410.1	2470190		S2L98	634350.8	2470180
57400	S2R99	634407.4	2470210		S2L99	634348.1	2470200
57420	S2R100	634405.1	2470230		S2L100	634345.8	2470220

वन मण्डलाधिकारी
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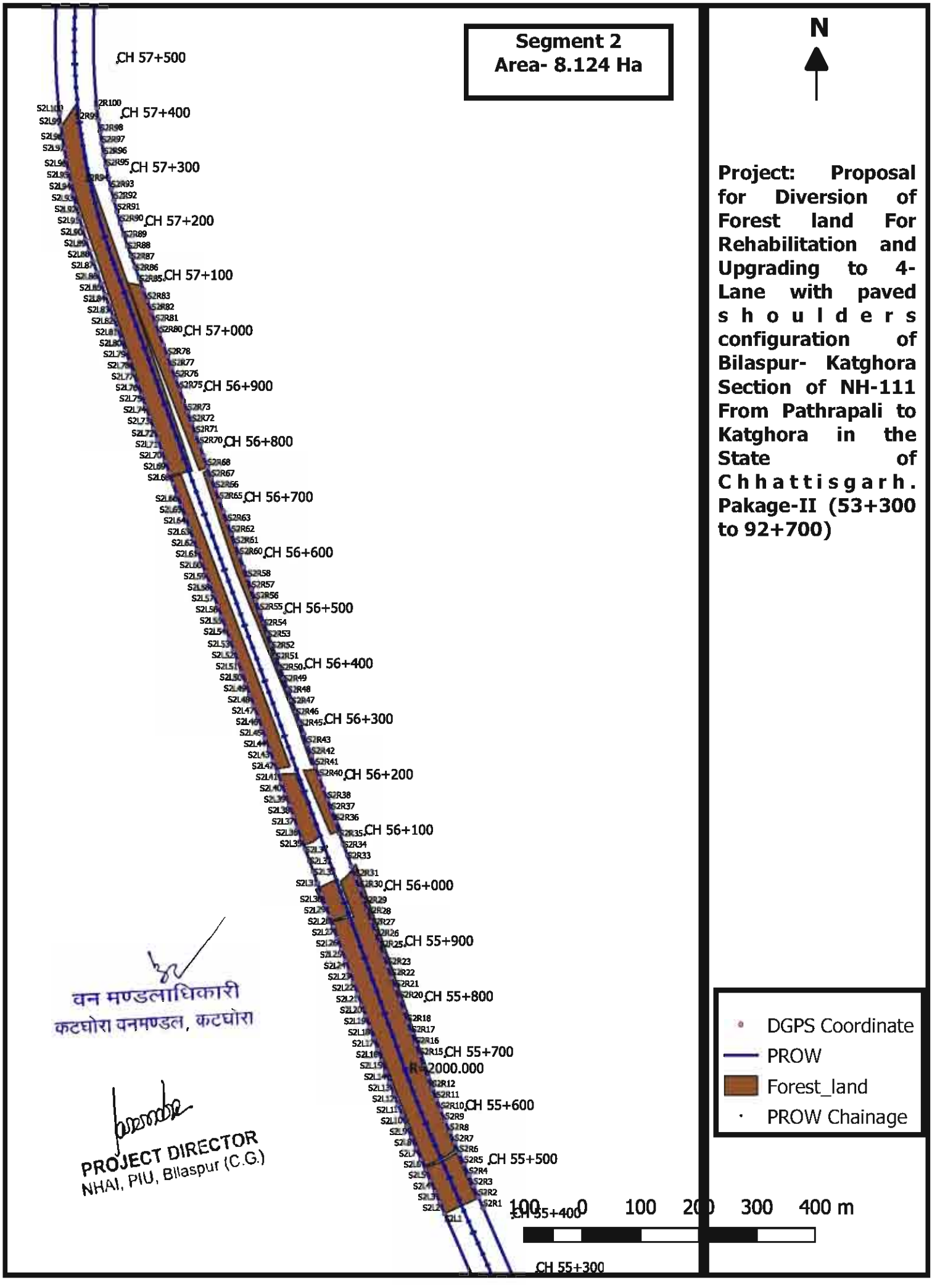
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)

DGPS Map


Segment 2
Area- 8.124 Ha
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CH 57+500
CH 57+400
CH 57+300
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CH 56+700
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CH 56+100
CH 56+000
CH 55+900
CH 55+800
CH 55+700
CH 55+600
CH 55+500
CH 55+400
CH 55+300
वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 3

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	Katghora	Mungadih	557	0.24	Revenue Forest
			Total	0.24	

Segment 3							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
57640	S3R1	634402.2	2470449		S3L1	634341.3	2470440
57660	S3R2	634403.9	2470469		S3L2	634342.8	2470460
57680	S3R3	634406.1	2470489		S3L3	634344.7	2470480
57700	S3R4	634408.5	2470509		S3L4	634346.9	2470500
57720	S3R5	634411.3	2470529		S3L5	634349.4	2470519

Segment 4

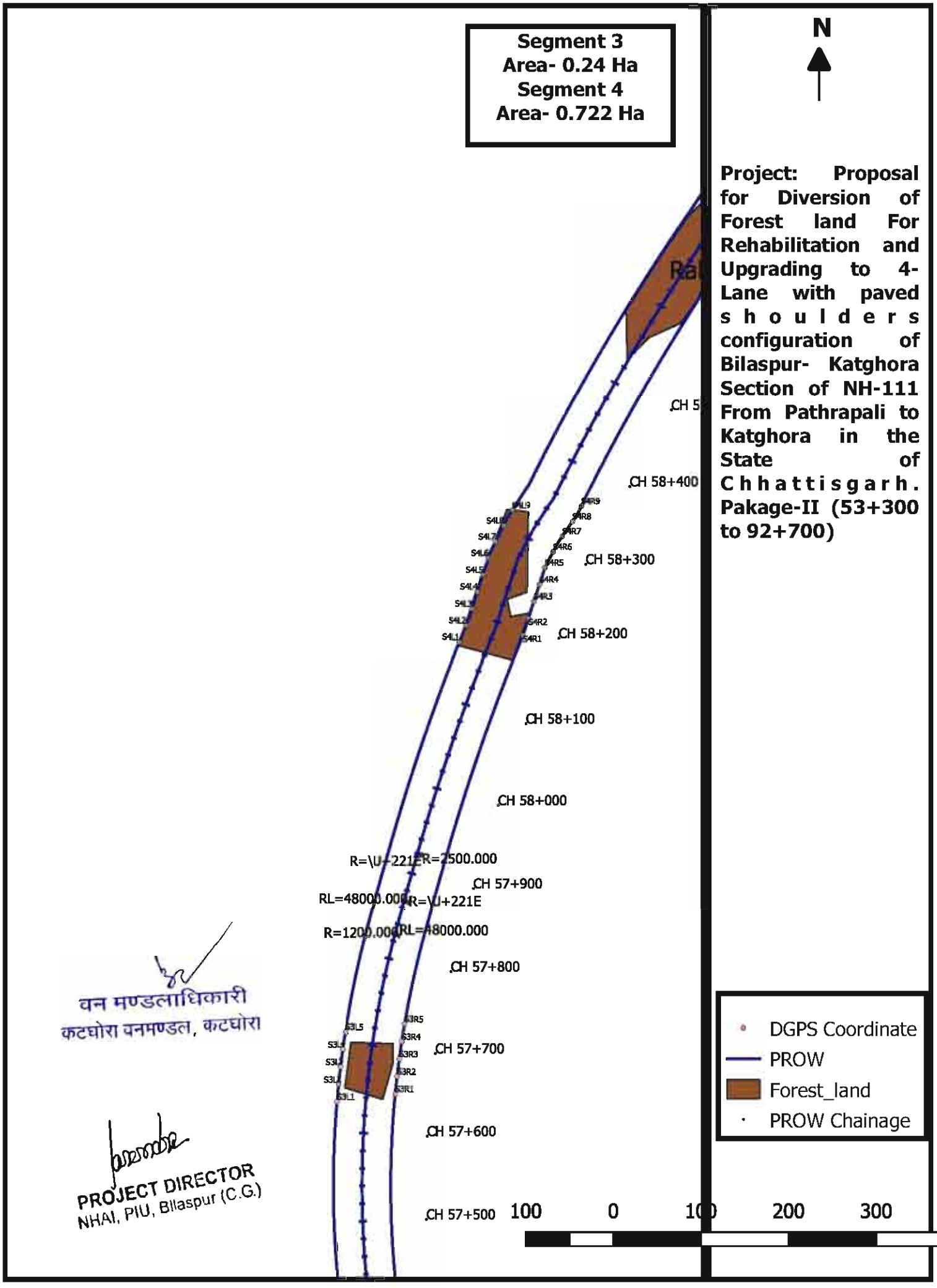
District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	Katghora	Mungadih	296/1k	0.722	Revenue Forest
			Total	0.722	

Segment 4							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
58180	S4R1	634532.6	2470972		S4L1	634465.7	2470964
58200	S4R2	634538.2	2470991		S4L2	634472.6	2470983
58220	S4R3	634543.6	2471010		S4L3	634478.8	2471002
58240	S4R4	634549.5	2471029		S4L4	634484.2	2471021
58260	S4R5	634554.9	2471049		S4L5	634489.9	2471040
58280	S4R6	634563.5	2471067		S4L6	634495.6	2471059
58300	S4R7	634572.9	2471084		S4L7	634503	2471078
58320	S4R8	634583.6	2471101		S4L8	634511.3	2471096
58340	S4R9	634592.8	2471119		S4L9	634520.4	2471114

PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)

वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा

DGPS Map



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PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)

Segment 5

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Rahadih**	104/1k	3.675	Protected Forest
			113/1k	0.08	Protected Forest
		Damiya	1/1	4.42	Protected Forest
		Saraipali	14	1.916	Protected Forest
			9/1	3.354	Orange Forest
			Total	**13.445**	

Segment 5							
PROW Chainage	**Pillar ID**	**Right**			**Pillar ID**	**Left**	
		X	**Y**			**X**	**Y**
58520	S5R1	634672.3	2471280		S5L1	634601.2	2471274
58540	S5R2	634681.9	2471298		S5L2	634610.5	2471292
58560	S5R3	634691.6	2471315		S5L3	634619.9	2471310
58580	S5R4	634701.4	2471333		S5L4	634629.5	2471327
58600	S5R5	634711.4	2471350		S5L5	634639.2	2471345
58620	S5R6	634721.5	2471367		S5L6	634649	2471362
58640	S5R7	634731.8	2471385		S5L7	634659	2471379
58660	S5R8	634742.2	2471402		S5L8	634669.1	2471397
58680	S5R9	634752.7	2471419		S5L9	634679.4	2471414
58700	S5R10	634763.4	2471436		S5L10	634689.7	2471431
58720	S5R11	634774.2	2471452		S5L11	634700.3	2471448
58740	S5R12	634785.1	2471469		S5L12	634710.9	2471465
58760	S5R13	634796.2	2471486		S5L13	634721.7	2471482
58780	S5R14	634807.4	2471502		S5L14	634732.6	2471498
58800	S5R15	634818.8	2471519		S5L15	634743.7	2471515
58820	S5R16	634830.2	2471535		S5L16	634754.8	2471532
58840	S5R17	634841.7	2471552		S5L17	634766.1	2471548
58860	S5R18	634853.2	2471568		S5L18	634777.6	2471565
58880	S5R19	634864.6	2471584		S5L19	634789	2471581
58900	S5R20	634876.1	2471601		S5L20	634800.5	2471597
58920	S5R21	634887.6	2471617		S5L21	634812	2471614
58940	S5R22	634899	2471634		S5L22	634823.4	2471630
58960	S5R23	634910.5	2471650		S5L23	634834.9	2471647

PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)

वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा

58980	S5R24	634922	2471666		S5L24	634846.4	2471663
59000	S5R25	634933.4	2471683		S5L25	634857.8	2471679
59020	S5R26	634944.9	2471699		S5L26	634869.3	2471696
59040	S5R27	634956.4	2471715		S5L27	634880.8	2471712
59060	S5R28	634967.8	2471732		S5L28	634892.2	2471729
59080	S5R29	634979.3	2471748		S5L29	634903.7	2471745
59100	S5R30	634990.8	2471765		S5L30	634915.2	2471761
59120	S5R31	635002.2	2471781		S5L31	634926.7	2471778
59140	S5R32	635013.7	2471797		S5L32	634938.1	2471794
59160	S5R33	635025.2	2471814		S5L33	634949.6	2471810
59180	S5R34	635036.6	2471830		S5L34	634961.1	2471827
59200	S5R35	635048.1	2471847		S5L35	634972.5	2471843
59220	S5R36	635059.6	2471863		S5L36	634984	2471860
59240	S5R37	635071	2471879		S5L37	634995.5	2471876
59260	S5R38	635082.5	2471896		S5L38	635006.9	2471892
59280	S5R39	635094	2471912		S5L39	635018.4	2471909
59300	S5R40	635105.4	2471928		S5L40	635029.9	2471925
59320	S5R41	635116.9	2471945		S5L41	635041.3	2471942
59340	S5R42	635128.4	2471961		S5L42	635052.8	2471958
59360	S5R43	635139.8	2471978		S5L43	635064.3	2471974
59380	S5R44	635151.3	2471994		S5L44	635075.7	2471991
59400	S5R45	635162.8	2472010		S5L45	635087.2	2472007
59420	S5R46	635174.2	2472027		S5L46	635098.7	2472023
59440	S5R47	635185.7	2472043		S5L47	635110.1	2472040
59460	S5R48	635197.1	2472060		S5L48	635121.6	2472056
59480	S5R49	635208.2	2472076		S5L49	635133.1	2472073
59500	S5R50	635219	2472093		S5L50	635144.5	2472089
59520	S5R51	635229.3	2472110		S5L51	635155.7	2472106
59540	S5R52	635239	2472128		S5L52	635166.5	2472122
59560	S5R53	635248	2472146		S5L53	635176.9	2472140
59580	S5R54	635256.3	2472164		S5L54	635186.6	2472157
59600	S5R55	635264	2472182		S5L55	635195.5	2472175
59620	S5R56	635270.9	2472201		S5L56	635203.7	2472193
59640	S5R57	635277.2	2472220		S5L57	635211	2472212
59660	S5R58	635282.7	2472239		S5L58	635217.6	2472231
59680	S5R59	635287.5	2472259		S5L59	635223.4	2472250
59700	S5R60	635291.5	2472278		S5L60	635228.3	2472269
59720	S5R61	635295	2472298		S5L61	635232.5	2472289
59740	S5R62	635298.1	2472318		S5L62	635236	2472308
59760	S5R63	635300.9	2472337		S5L63	635239	2472328
59780	S5R64	635303.6	2472357		S5L64	635241.8	2472348
59800	S5R65	635306.3	2472377		S5L65	635244.5	2472368
59820	S5R66	635308.9	2472397		S5L66	635247.1	2472388

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59840	S5R67	635311.6	2472417		S5L67	635249.8	2472407
59860	S5R68	635314.3	2472437		S5L68	635252.5	2472427
59880	S5R69	635316.9	2472456		S5L69	635255.1	2472447
59900	S5R70	635319.6	2472476		S5L70	635257.8	2472467
59920	S5R71	635322.3	2472496		S5L71	635260.5	2472487
59940	S5R72	635324.9	2472516		S5L72	635263.1	2472507
59960	S5R73	635327.6	2472536		S5L73	635265.8	2472526
59980	S5R74	635330.3	2472556		S5L74	635268.5	2472546
60000	S5R75	635332.9	2472575		S5L75	635271.1	2472566
60020	S5R76	635335.6	2472595		S5L76	635273.8	2472586
60040	S5R77	635338.3	2472615		S5L77	635276.5	2472606
60060	S5R78	635340.9	2472635		S5L78	635279.1	2472625
60080	S5R79	635343.6	2472655		S5L79	635281.8	2472645
60100	S5R80	635346.3	2472674		S5L80	635284.5	2472665
60120	S5R81	635348.9	2472694		S5L81	635287.1	2472685
60140	S5R82	635351.6	2472714		S5L82	635289.8	2472705
60160	S5R83	635354.3	2472734		S5L83	635292.5	2472725
60180	S5R84	635356.9	2472754		S5L84	635295.1	2472744
60200	S5R85	635359.6	2472774		S5L85	635297.8	2472764
60220	S5R86	635362.2	2472793		S5L86	635300.5	2472784
60240	S5R87	635364.9	2472813		S5L87	635303.1	2472804
60260	S5R88	635367.7	2472833		S5L88	635305.8	2472824
60280	S5R89	635370.6	2472853		S5L89	635308.5	2472844
60300	S5R90	635374	2472872		S5L90	635311.6	2472863
60320	S5R91	635378.1	2472892		S5L91	635315	2472883
60340	S5R92	635382.9	2472911		S5L92	635318.9	2472903
60360	S5R93	635388.7	2472931		S5L93	635323.6	2472922
60380	S5R94	635395.5	2472949		S5L94	635329.1	2472941
60400	S5R95	635403.4	2472968		S5L95	635335.5	2472960
60420	S5R96	635412.2	2472986		S5L96	635342.7	2472979
60440	S5R97	635422	2473003		S5L97	635350.8	2472997
60460	S5R98	635432.7	2473020		S5L98	635359.8	2473015
60480	S5R99	635444.3	2473036		S5L99	635369.6	2473032
60500	S5R100	635456.8	2473052		S5L100	635380.2	2473049
60520	S5R101	635470.1	2473067		S5L101	635391.5	2473066
60540	S5R102	635484.1	2473081		S5L102	635403.6	2473082
60560	S5R103	635499	2473095		S5L103	635416.4	2473097
60580	S5R104	635514.5	2473107		S5L104	635430	2473112
60600	S5R105	635530.7	2473119		S5L105	635444.2	2473126
60620	S5R106	635547.5	2473130		S5L106	635459	2473139
60640	S5R107	635564.9	2473140		S5L107	635474.5	2473152

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60660	S5R108	635582.7	2473149		S5L108	635490.5	2473164
60680	S5R109	635601.1	2473157		S5L109	635507.1	2473175
60700	S5R110	635619.7	2473164		S5L110	635524.1	2473186
60720	S5R111	635638.7	2473170		S5L111	635541.7	2473195
60740	S5R112	635657.8	2473176		S5L112	635559.6	2473204
60760	S5R113	635677.1	2473181		S5L113	635578	2473212
60780	S5R114	635696.4	2473187		S5L114	635596.6	2473219
60800	S5R115	635715.7	2473192		S5L115	635615.6	2473226
60820	S5R116	635734.9	2473197		S5L116	635634.6	2473232
60840	S5R117	635754.2	2473202		S5L117	635653.8	2473237
60860	S5R118	635773.5	2473208		S5L118	635673.1	2473243
60880	S5R119	635792.8	2473213		S5L119	635692.4	2473248
60900	S5R120	635812.1	2473218		S5L120	635711.7	2473253
60920	S5R121	635831.4	2473224		S5L121	635731	2473258
60940	S5R122	635850.7	2473229		S5L122	635750.3	2473264
60960	S5R123	635870	2473234		S5L123	635769.6	2473269
60980	S5R124	635889.3	2473239		S5L124	635788.9	2473274
61000	S5R125	635908.6	2473245		S5L125	635808.2	2473279
61020	S5R126	635927.9	2473250		S5L126	635827.5	2473285
61040	S5R127	635947.2	2473255		S5L127	635846.8	2473290
61060	S5R128	635966.5	2473260		S5L128	635866.1	2473295
61080	S5R129	635985.8	2473266		S5L129	635885.4	2473300
61100	S5R130	636005.1	2473271		S5L130	635904.7	2473306
61120	S5R131	636024.4	2473276		S5L131	635924	2473311
61140	S5R132	636043.7	2473281		S5L132	635943.3	2473316
61160	S5R133	636062.8	2473287		S5L133	635962.6	2473321
61180	S5R134	636081.9	2473293		S5L134	635981.9	2473327
61200	S5R135	636100.7	2473300		S5L135	636001.2	2473332
61220	S5R136	636119.3	2473307		S5L136	636020.4	2473337
61240	S5R137	636137.6	2473315		S5L137	636039.7	2473343
61260	S5R138	636155.5	2473324		S5L138	636058.7	2473349
61280	S5R139	636172.9	2473334		S5L139	636077.6	2473355
61300	S5R140	636189.8	2473345		S5L140	636096.3	2473363
61320	S5R141	636206.3	2473356		S5L141	636114.5	2473371
61340	S5R142	636222.1	2473368		S5L142	636132.2	2473380
61360	S5R143	636237.4	2473381		S5L143	636149.5	2473390
61380	S5R144	636252.1	2473395		S5L144	636166.1	2473401
61400	S5R145	636266.2	2473409		S5L145	636182.2	2473413

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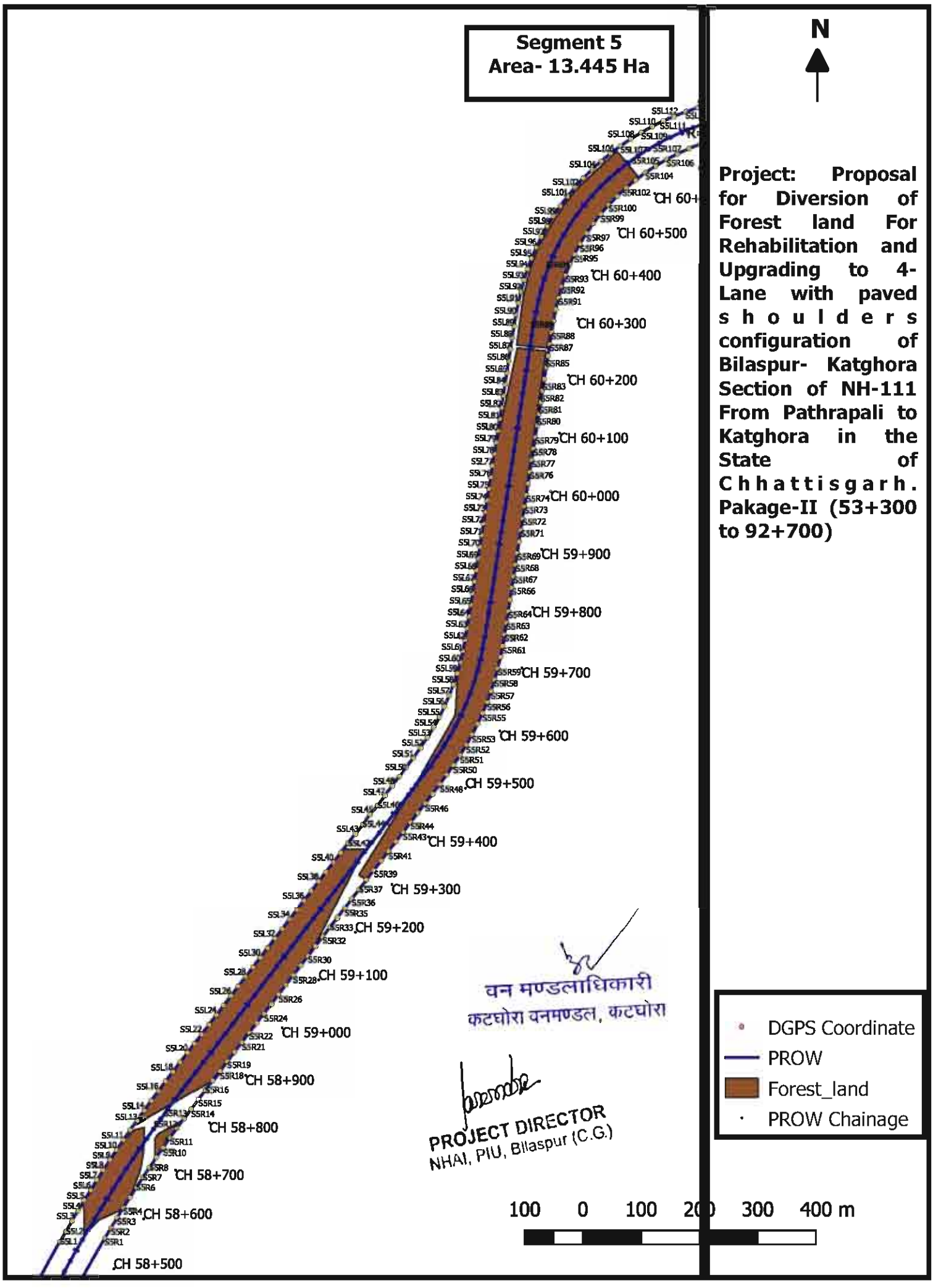
DGPS Map


Segment 5
Area- 13.445 Ha
N
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CH 60+
CH 60+500
CH 60+400
CH 60+300
CH 60+200
CH 60+100
CH 60+000
CH 59+900
CH 59+800
CH 59+700
CH 59+600
CH 59+500
CH 59+400
CH 59+300
CH 59+200
CH 59+100
CH 59+000
CH 58+900
CH 58+800
CH 58+700
CH 58+600
CH 58+500
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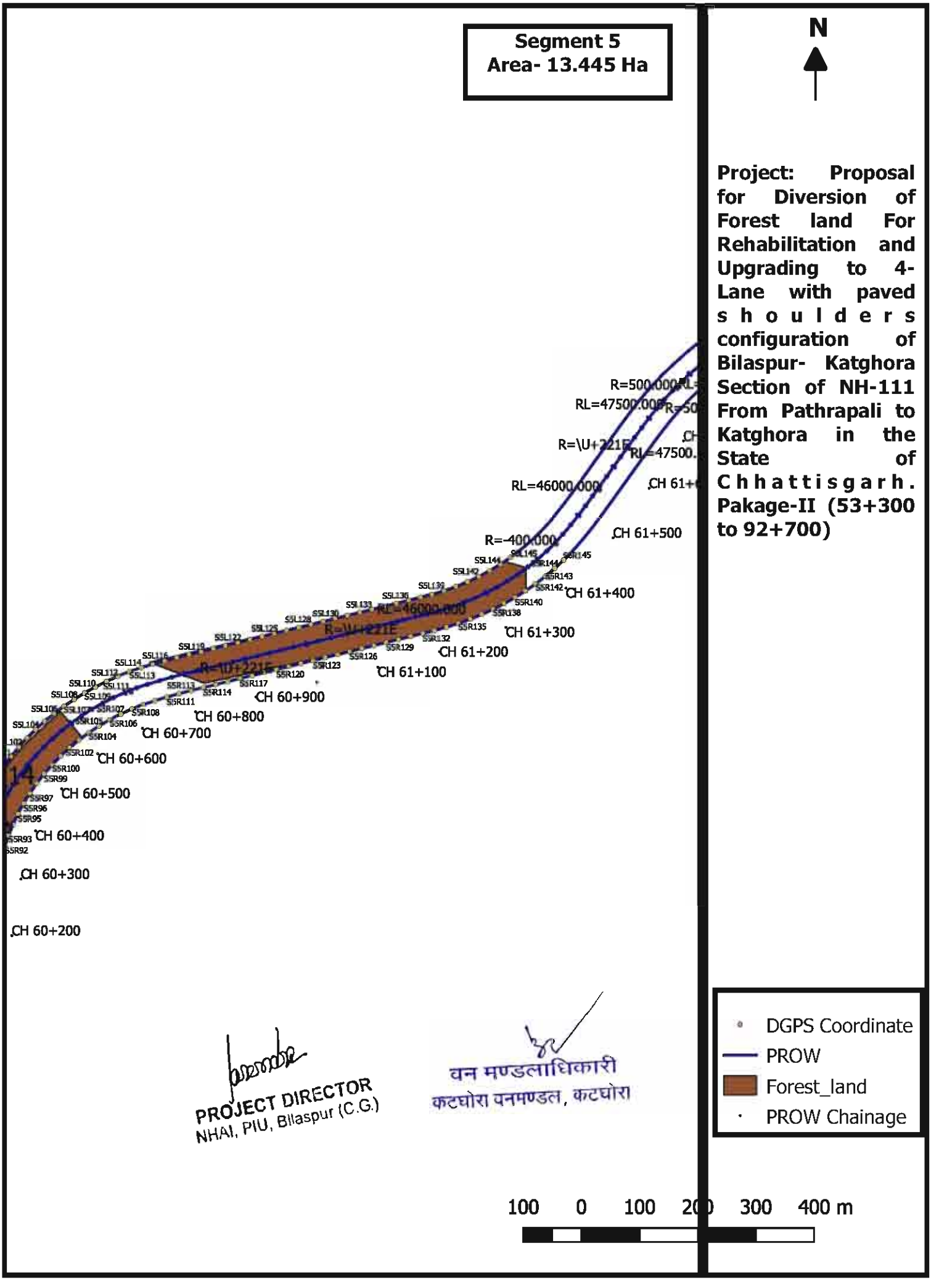
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

DGPS Map


Segment 5
Area- 13.445 Ha
N
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R=500.000
RL=47500.000
R=\U+221E
RL=47500.
RL=46000.000
CH 61+
CH 61+500
R=-400.000
CH 61+400
CH 61+300
CH 61+200
CH 61+100
CH 60+900
CH 60+800
CH 60+700
CH 60+600
CH 60+500
CH 60+400
CH 60+300
CH 60+200
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DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 6 & 7

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Saraipali**	124	3.705	Orange Forest
		Pali	385/1	1.578	Protected Forest
		Rangole	41/1/k	1.073	Protected Forest
			Total	**6.356**	

Segment 6							
PROW Chainage	**Pillar ID**	**Right**			**Pillar ID**	**Left**	
		X	**Y**			**X**	**Y**
61920	S6R1	636595.1	2473808		S6L1	636510.7	2473813
61940	S6R2	636609.9	2473822		S6L2	636525.6	2473826
61960	S6R3	636624.8	2473835		S6L3	636540.4	2473840
61980	S6R4	636639.6	2473848		S6L4	636555.2	2473853
62000	S6R5	636654.4	2473862		S6L5	636570	2473866
62020	S6R6	636669.2	2473875		S6L6	636584.8	2473880
62040	S6R7	636684	2473889		S6L7	636599.7	2473893
62060	S6R8	636698.9	2473902		S6L8	636614.5	2473907
62080	S6R9	636713.7	2473916		S6L9	636629.3	2473920
62100	S6R10	636728.5	2473929		S6L10	636644.1	2473934
62120	S6R11	636743.3	2473943		S6L11	636658.9	2473947
62140	S6R12	636758.1	2473956		S6L12	636673.7	2473960
62160	S6R13	636773	2473969		S6L13	636688.6	2473974
62180	S6R14	636787.8	2473983		S6L14	636703.4	2473987
62200	S6R15	636802.6	2473996		S6L15	636718.2	2474001
62220	S6R16	636817.4	2474010		S6L16	636733	2474014
62240	S6R17	636832.2	2474023		S6L17	636747.8	2474028
62260	S6R18	636847	2474037		S6L18	636762.7	2474041
62280	S6R19	636861.9	2474050		S6L19	636777.5	2474054
62300	S6R20	636876.7	2474063		S6L20	636792.3	2474068
62320	S6R21	636891.5	2474077		S6L21	636807.1	2474081
62340	S6R22	636906.4	2474090		S6L22	636821.9	2474095
62360	S6R23	636921.4	2474103		S6L23	636836.7	2474108
62380	S6R24	636936.5	2474117		S6L24	636851.6	2474122
62400	S6R25	636951.6	2474130		S6L25	636866.5	2474135
62420	S6R26	636966.6	2474143		S6L26	636881.5	2474148

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62440	S6R27	636981.7	2474156		S6L27	636896.6	2474161
62460	S6R28	636996.8	2474169		S6L28	636911.6	2474174
62480	S6R29	637011.9	2474182		S6L29	636926.7	2474188

Segment 7							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
62620	S7R1	637117.4	2474274		S7L1	637032.2	2474280
62640	S7R2	637132.5	2474287		S7L2	637047.3	2474293
62660	S7R3	637147.5	2474301		S7L3	637062.4	2474306
62680	S7R4	637162.6	2474314		S7L4	637077.5	2474319
62700	S7R5	637177.7	2474327		S7L5	637092.5	2474332
62720	S7R6	637192.8	2474340		S7L6	637107.6	2474345
62740	S7R7	637207.8	2474353		S7L7	637122.7	2474358
62760	S7R8	637222.9	2474366		S7L8	637137.7	2474372
62780	S7R9	637238	2474379		S7L9	637152.8	2474385
62800	S7R10	637253	2474393		S7L10	637167.9	2474398
62820	S7R11	637268.1	2474406		S7L11	637183	2474411
62840	S7R12	637283.2	2474419		S7L12	637198	2474424
62860	S7R13	637298.3	2474432		S7L13	637213.1	2474437
62880	S7R14	637313.3	2474445		S7L14	637228.2	2474450
62900	S7R15	637328.4	2474458		S7L15	637243.3	2474464
62920	S7R16	637343.5	2474471		S7L16	637258.3	2474477
62940	S7R17	637358.6	2474485		S7L17	637273.4	2474490
62960	S7R18	637373.6	2474498		S7L18	637288.5	2474503
62980	S7R19	637388.7	2474511		S7L19	637303.6	2474516
63000	S7R20	637403.8	2474524		S7L20	637318.6	2474529
63020	S7R21	637418.9	2474537		S7L21	637333.7	2474542
63040	S7R22	637433.9	2474550		S7L22	637348.8	2474556
63060	S7R23	637448.8	2474564		S7L23	637363.9	2474569
63080	S7R24	637463.5	2474577		S7L24	637378.9	2474582
63100	S7R25	637477.9	2474591		S7L25	637394	2474595
63120	S7R26	637492	2474605		S7L26	637408.9	2474608
63140	S7R27	637505.7	2474620		S7L27	637423.6	2474622
63160	S7R28	637519	2474635		S7L28	637437.9	2474636
63180	S7R29	637532	2474650		S7L29	637451.9	2474650
63200	S7R30	637544.6	2474666		S7L30	637465.5	2474665
63220	S7R31	637556.8	2474681		S7L31	637478.7	2474680

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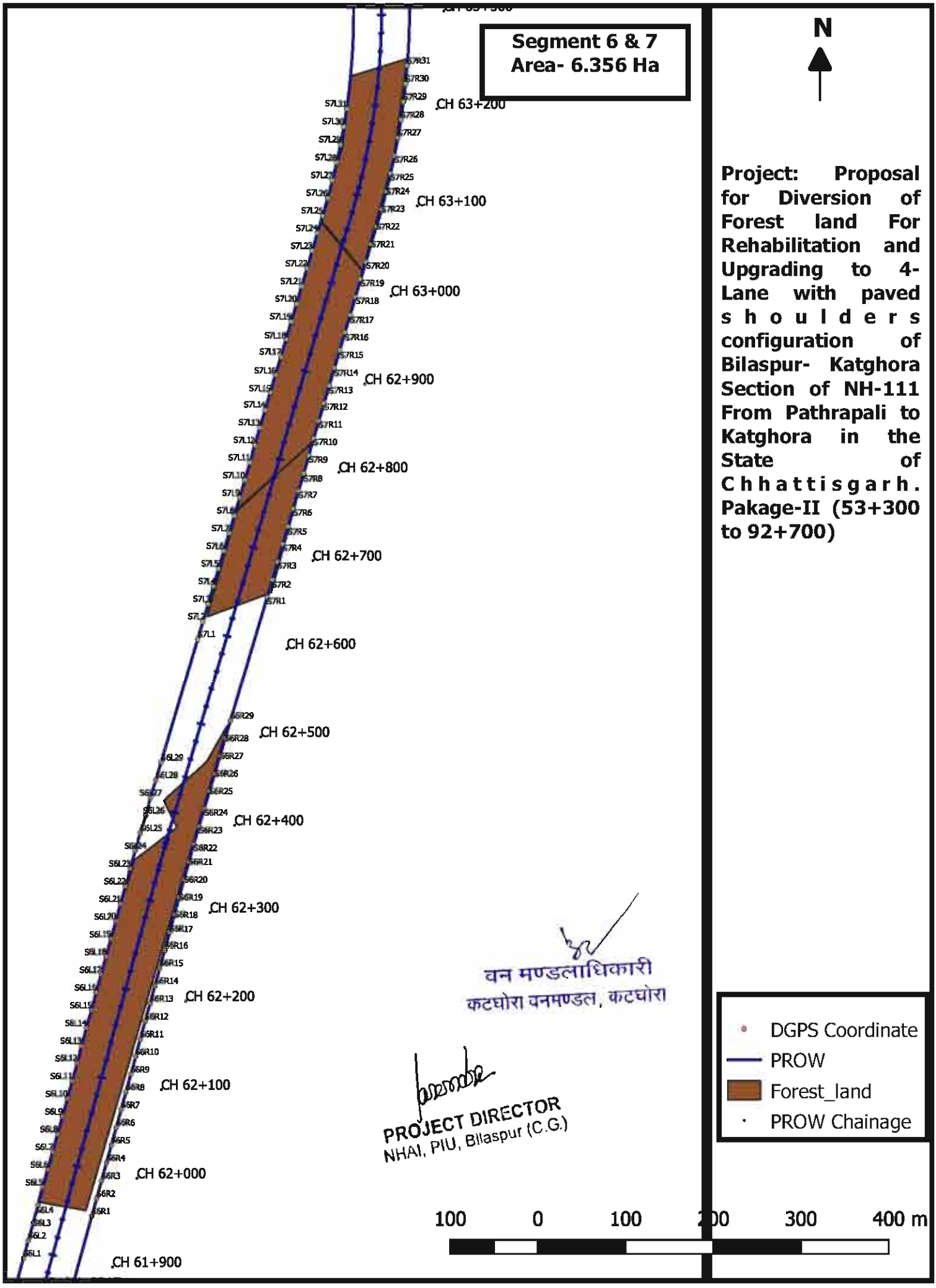
DGPS Map



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Segment 8

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	Katghora	Rangole	19/1	0.843	Orange Forest
			4/1	7.654	Orange Forest
			9/1, 19/6	0.0341	Revenue Forest
			Total	**8.5311**	

Segment 8							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
63400	S8R1	637651.1	2474834		S8L1	637579.4	2474829
63420	S8R2	637660.8	2474852		S8L2	637589.1	2474846
63440	S8R3	637670.5	2474869		S8L3	637598.7	2474864
63460	S8R4	637680.1	2474887		S8L4	637608.4	2474881
63480	S8R5	637689.8	2474904		S8L5	637618.1	2474899
63500	S8R6	637699.5	2474922		S8L6	637627.8	2474916
63520	S8R7	637709.2	2474939		S8L7	637637.4	2474934
63540	S8R8	637718.8	2474957		S8L8	637647.1	2474951
63560	S8R9	637728.5	2474974		S8L9	637656.8	2474969
63580	S8R10	637738.2	2474992		S8L10	637666.5	2474986
63600	S8R11	637747.9	2475009		S8L11	637676.1	2475004
63620	S8R12	637757.5	2475027		S8L12	637685.8	2475021
63640	S8R13	637767.2	2475044		S8L13	637695.5	2475039
63660	S8R14	637776.9	2475062		S8L14	637705.2	2475056
63680	S8R15	637786.6	2475080		S8L15	637714.8	2475074
63700	S8R16	637796.3	2475097		S8L16	637724.5	2475091
63720	S8R17	637805.9	2475115		S8L17	637734.2	2475109
63740	S8R18	637815.7	2475132		S8L18	637743.9	2475126
63760	S8R19	637825.6	2475149		S8L19	637753.5	2475144
63780	S8R20	637835.8	2475167		S8L20	637763.3	2475161
63800	S8R21	637846.6	2475183		S8L21	637773.2	2475179
63820	S8R22	637858	2475200		S8L22	637783.4	2475196
63840	S8R23	637870.1	2475216		S8L23	637794.1	2475213
63860	S8R24	637882.9	2475231		S8L24	637805.3	2475229
63880	S8R25	637896.3	2475246		S8L25	637817.2	2475245
63900	S8R26	637910.3	2475260		S8L26	637829.6	2475261
63920	S8R27	637924.9	2475274		S8L27	637842.6	2475276

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63940	S8R28	637940.1	2475287		S8L28	637856.2	2475291
63960	S8R29	637955.8	2475299		S8L29	637870.3	2475305
63980	S8R30	637972.1	2475311		S8L30	637885	2475319
64000	S8R31	637988.8	2475322		S8L31	637900.1	2475332
64020	S8R32	638005.9	2475332		S8L32	637915.8	2475344
64040	S8R33	638023.5	2475342		S8L33	637931.9	2475356
64060	S8R34	638041.5	2475350		S8L34	637948.4	2475367
64080	S8R35	638059.8	2475358		S8L35	637965.3	2475378
64100	S8R36	638078.5	2475366		S8L36	637982.7	2475388
64120	S8R37	638097.5	2475372		S8L37	638000.4	2475397
64140	S8R38	638116.7	2475378		S8L38	638018.4	2475406
64160	S8R39	638136.1	2475382		S8L39	638036.8	2475414
64180	S8R40	638155.7	2475386		S8L40	638055.4	2475421
64200	S8R41	638175.4	2475389		S8L41	638074.3	2475428
64220	S8R42	638195.3	2475392		S8L42	638093.4	2475433
64240	S8R43	638215.3	2475393		S8L43	638112.8	2475439
64260	S8R44	638235.3	2475394		S8L44	638132.3	2475443
64280	S8R45	638255.2	2475393		S8L45	638151.9	2475447
64300	S8R46	638275.2	2475392		S8L46	638171.7	2475449
64320	S8R47	638295.1	2475390		S8L47	638191.6	2475452
64340	S8R48	638315	2475388		S8L48	638211.6	2475453
64360	S8R49	638334.8	2475385		S8L49	638231.6	2475454
64380	S8R50	638354.6	2475383		S8L50	638251.6	2475453
64400	S8R51	638374.4	2475380		S8L51	638271.5	2475453
64420	S8R52	638394.2	2475377		S8L52	638291.5	2475451
64440	S8R53	638414	2475374		S8L53	638311.4	2475449
64460	S8R54	638433.8	2475371		S8L54	638331.2	2475446
64480	S8R55	638453.6	2475369		S8L55	638351	2475444
64500	S8R56	638473.5	2475366		S8L56	638370.8	2475441
64520	S8R57	638493.3	2475363		S8L57	638390.6	2475438
64540	S8R58	638513.1	2475360		S8L58	638410.4	2475435
64560	S8R59	638532.9	2475357		S8L59	638430.2	2475433
64580	S8R60	638552.7	2475355		S8L60	638450	2475430
64600	S8R61	638572.5	2475352		S8L61	638469.8	2475427
64620	S8R62	638592.3	2475349		S8L62	638489.7	2475424
64640	S8R63	638612.1	2475346		S8L63	638509.5	2475421
64660	S8R64	638631.9	2475343		S8L64	638529.3	2475419
64680	S8R65	638651.7	2475341		S8L65	638549.1	2475416
64700	S8R66	638671.5	2475338		S8L66	638568.9	2475413
64720	S8R67	638691.3	2475335		S8L67	638588.7	2475410
64740	S8R68	638711.1	2475332		S8L68	638608.5	2475407
64760	S8R69	638730.9	2475330		S8L69	638628.3	2475405

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64780	S8R70	638750.7	2475327		S8L70	638648.1	2475402
64800	S8R71	638770.5	2475324		S8L71	638667.9	2475399
64820	S8R72	638790.3	2475321		S8L72	638687.7	2475396
64840	S8R73	638810.1	2475318		S8L73	638707.5	2475393
64860	S8R74	638829.9	2475316		S8L74	638727.3	2475391
64880	S8R75	638849.7	2475313		S8L75	638747.1	2475388
64900	S8R76	638869.5	2475310		S8L76	638766.9	2475385
64920	S8R77	638889.3	2475307		S8L77	638786.7	2475382
64940	S8R78	638909.1	2475304		S8L78	638806.5	2475379
64960	S8R79	638928.9	2475302		S8L79	638826.3	2475377
64980	S8R80	638948.7	2475299		S8L80	638846.1	2475374
65000	S8R81	638968.5	2475296		S8L81	638865.9	2475371
65020	S8R82	638988.4	2475293		S8L82	638885.7	2475368
65040	S8R83	639008.2	2475290		S8L83	638905.5	2475365

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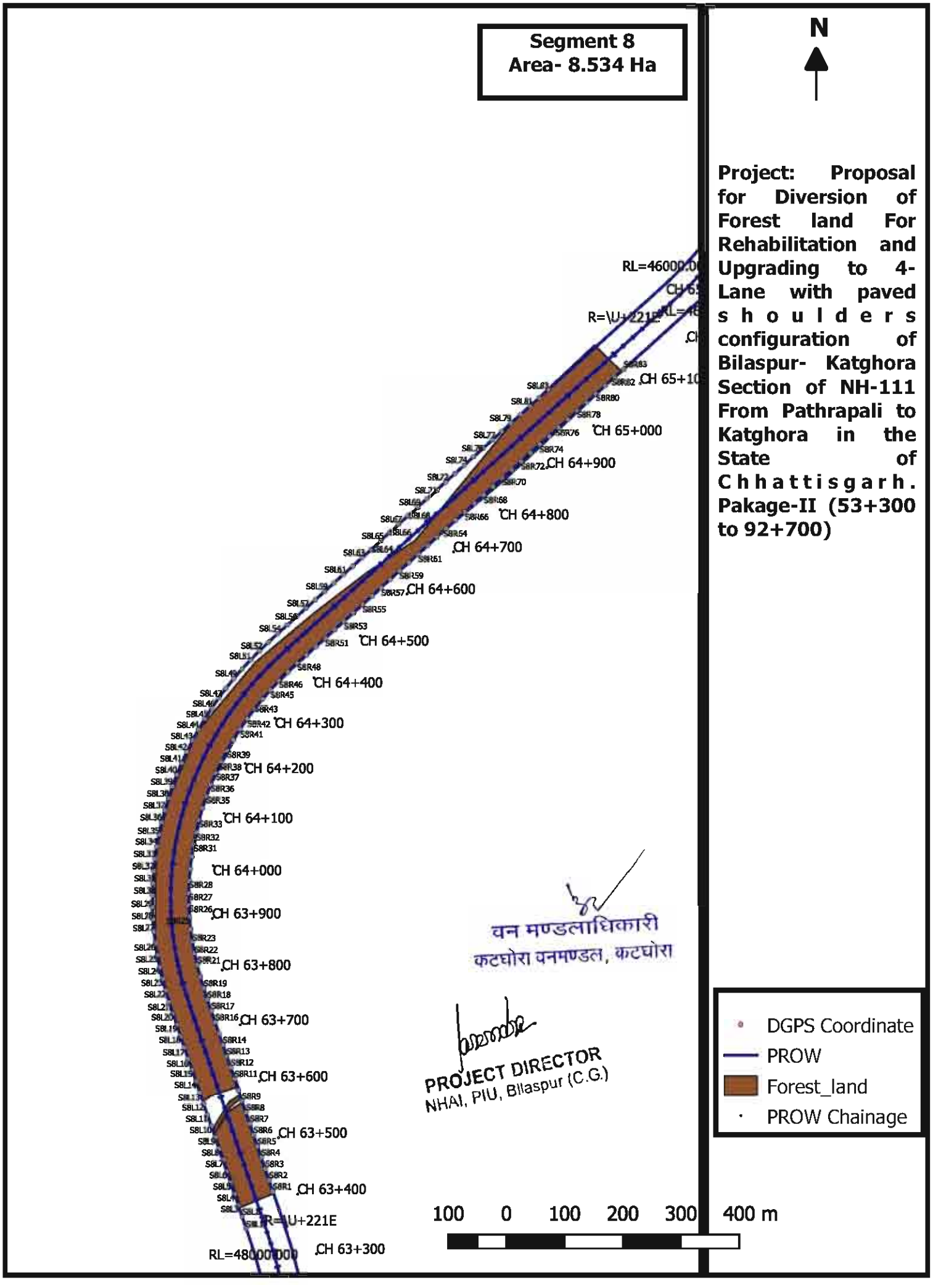
DGPS Map


Segment 8
Area- 8.534 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 65+000
CH 64+900
CH 64+800
CH 64+700
CH 64+600
CH 64+500
CH 64+400
CH 64+300
CH 64+200
CH 64+100
CH 64+000
CH 63+900
CH 63+800
CH 63+700
CH 63+600
CH 63+500
CH 63+400
CH 63+300
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PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 9

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Dhaurabhata**	4/7k	0.328	Orange Forest
		Makhanpur	3/1	7.202	Orange Forest
		Dumarkachhar	121/1	2.7	Orange Forest
			Total	**10.23**	

Segment 9							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
65740	S9R1	639644.8	2475478		S9L1	639557.6	2475486
65760	S9R2	639660.6	2475490		S9L2	639573.3	2475498
65780	S9R3	639676.3	2475503		S9L3	639589.1	2475510
65800	S9R4	639692	2475515		S9L4	639604.8	2475523
65820	S9R5	639707.8	2475527		S9L5	639620.5	2475535
65840	S9R6	639723.5	2475540		S9L6	639636.3	2475547
65860	S9R7	639739.3	2475552		S9L7	639652	2475560
65880	S9R8	639755	2475564		S9L8	639667.8	2475572
65900	S9R9	639770.8	2475577		S9L9	639683.5	2475584
65920	S9R10	639786.5	2475589		S9L10	639699.3	2475597
65940	S9R11	639802.2	2475601		S9L11	639715	2475609
65960	S9R12	639818	2475614		S9L12	639730.7	2475621
65980	S9R13	639833.7	2475626		S9L13	639746.5	2475634
66000	S9R14	639849.5	2475638		S9L14	639762.2	2475646
66020	S9R15	639865.2	2475651		S9L15	639778	2475658
66040	S9R16	639881	2475663		S9L16	639793.7	2475671
66060	S9R17	639896.7	2475675		S9L17	639809.5	2475683
66080	S9R18	639912.4	2475688		S9L18	639825.2	2475695
66100	S9R19	639928.2	2475700		S9L19	639840.9	2475708
66120	S9R20	639943.9	2475712		S9L20	639856.7	2475720
66140	S9R21	639959.7	2475725		S9L21	639872.4	2475732
66160	S9R22	639975.4	2475737		S9L22	639888.2	2475745
66180	S9R23	639991.2	2475749		S9L23	639903.9	2475757
66200	S9R24	640006.9	2475762		S9L24	639919.7	2475769
66220	S9R25	640022.6	2475774		S9L25	639935.4	2475782

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66240	S9R26	640038.4	2475786		S9L26	639951.2	2475794
66260	S9R27	640054.1	2475799		S9L27	639966.9	2475806
66280	S9R28	640069.9	2475811		S9L28	639982.6	2475819
66300	S9R29	640085.6	2475823		S9L29	639998.4	2475831
66320	S9R30	640101.4	2475836		S9L30	640014.1	2475843
66340	S9R31	640117.1	2475848		S9L31	640029.9	2475856
66360	S9R32	640132.8	2475860		S9L32	640045.6	2475868
66380	S9R33	640148.6	2475873		S9L33	640061.4	2475880
66400	S9R34	640164.3	2475885		S9L34	640077.1	2475893
66420	S9R35	640180.1	2475897		S9L35	640092.8	2475905
66440	S9R36	640195.8	2475910		S9L36	640108.6	2475917
66460	S9R37	640211.6	2475922		S9L37	640124.3	2475930
66480	S9R38	640227.3	2475934		S9L38	640140.1	2475942
66500	S9R39	640243	2475947		S9L39	640155.8	2475954
66520	S9R40	640258.8	2475959		S9L40	640171.6	2475967
66540	S9R41	640274.5	2475971		S9L41	640187.3	2475979
66560	S9R42	640290.2	2475984		S9L42	640203	2475991
66580	S9R43	640305.8	2475996		S9L43	640218.8	2476004
66600	S9R44	640321.1	2476009		S9L44	640234.5	2476016
66620	S9R45	640336.1	2476022		S9L45	640250.2	2476028
66640	S9R46	640350.8	2476036		S9L46	640265.8	2476041
66660	S9R47	640365.2	2476050		S9L47	640281.2	2476054
66680	S9R48	640379.2	2476064		S9L48	640296.2	2476067
66700	S9R49	640392.9	2476079		S9L49	640310.9	2476081
66720	S9R50	640406.2	2476094		S9L50	640325.2	2476095
66740	S9R51	640419.2	2476109		S9L51	640339.1	2476109
66760	S9R52	640431.7	2476124		S9L52	640352.7	2476124
66780	S9R53	640443.9	2476140		S9L53	640365.9	2476139
66800	S9R54	640455.8	2476156		S9L54	640378.7	2476154
66820	S9R55	640467.2	2476173		S9L55	640391.1	2476170
66840	S9R56	640478.3	2476189		S9L56	640403	2476186
66860	S9R57	640489.3	2476206		S9L57	640414.6	2476202
66880	S9R58	640500.2	2476223		S9L58	640425.8	2476219
66900	S9R59	640511.2	2476240		S9L59	640436.8	2476235
66920	S9R60	640522.1	2476256		S9L60	640447.7	2476252
66940	S9R61	640533	2476273		S9L61	640458.7	2476269
66960	S9R62	640543.9	2476290		S9L62	640469.6	2476286
66980	S9R63	640554.9	2476307		S9L63	640480.5	2476302
67000	S9R64	640565.8	2476323		S9L64	640491.4	2476319
67020	S9R65	640576.7	2476340		S9L65	640502.4	2476336
67040	S9R66	640587.6	2476357		S9L66	640513.3	2476353
67060	S9R67	640598.6	2476374		S9L67	640524.2	2476369

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67080	S9R68	640609.5	2476390		S9L68	640535.1	2476386
67100	S9R69	640620.4	2476407		S9L69	640546.1	2476403
67120	S9R70	640631.3	2476424		S9L70	640557	2476420
67140	S9R71	640642.3	2476441		S9L71	640567.9	2476436
67160	S9R72	640653.2	2476457		S9L72	640578.8	2476453
67180	S9R73	640664.2	2476474		S9L73	640589.8	2476470
67200	S9R74	640675.5	2476490		S9L74	640600.7	2476487
67220	S9R75	640687.1	2476507		S9L75	640611.7	2476503
67240	S9R76	640699.3	2476523		S9L76	640622.9	2476520
67260	S9R77	640712	2476538		S9L77	640634.4	2476536
67280	S9R78	640725.3	2476553		S9L78	640646.3	2476552
67300	S9R79	640739.1	2476568		S9L79	640658.8	2476568
67320	S9R80	640753.3	2476582		S9L80	640671.7	2476583
67340	S9R81	640767.8	2476595		S9L81	640685.2	2476598
67360	S9R82	640782.5	2476609		S9L82	640699	2476612
67380	S9R83	640797.3	2476622		S9L83	640713.3	2476626
67400	S9R84	640812.2	2476636		S9L84	640727.9	2476640
67420	S9R85	640827	2476649		S9L85	640742.6	2476654
67440	S9R86	640841.8	2476663		S9L86	640757.4	2476667
67460	S9R87	640856.6	2476676		S9L87	640772.2	2476681
67480	S9R88	640871.4	2476690		S9L88	640787	2476694
67500	S9R89	640886.2	2476703		S9L89	640801.8	2476707
67520	S9R90	640901	2476716		S9L90	640816.6	2476721
67540	S9R91	640915.8	2476730		S9L91	640831.5	2476734
67560	S9R92	640930.6	2476743		S9L92	640846.3	2476748
67580	S9R93	640945.4	2476757		S9L93	640861.1	2476761
67600	S9R94	640960.2	2476770		S9L94	640875.9	2476775
67620	S9R95	640975.1	2476784		S9L95	640890.7	2476788
67640	S9R96	640989.9	2476797		S9L96	640905.5	2476802
67660	S9R97	641004.7	2476810		S9L97	640920.3	2476815
67680	S9R98	641019.5	2476824		S9L98	640935.1	2476828
67700	S9R99	641034.3	2476837		S9L99	640949.9	2476842
67720	S9R100	641049.1	2476851		S9L100	640964.7	2476855
67740	S9R101	641063.9	2476864		S9L101	640979.6	2476869
67760	S9R102	641078.7	2476878		S9L102	640994.4	2476882
67780	S9R103	641093.5	2476891		S9L103	641009.2	2476896
67800	S9R104	641108.3	2476905		S9L104	641024	2476909
67820	S9R105	641123.2	2476918		S9L105	641038.8	2476922
67840	S9R106	641138	2476931		S9L106	641053.6	2476936
67860	S9R107	641152.8	2476945		S9L107	641068.4	2476949
67880	S9R108	641167.6	2476958		S9L108	641083.2	2476963

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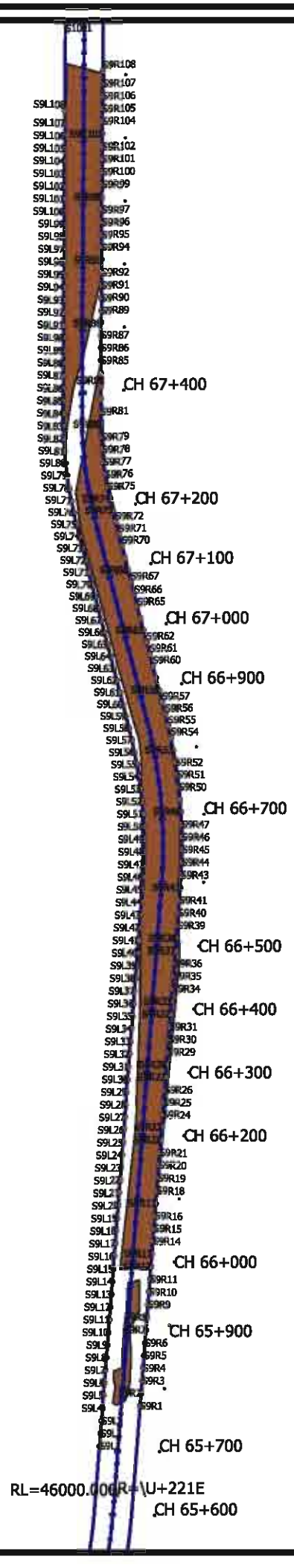
DGPS Map



Segment 9
Area- 10.23 Ha

N

Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)

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- DGPS Coordinate
- PROW
- Forest_land
- PROW Chainage

100 0 100 200 300 400 m

Segment 10

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Banbandha**	153	0.35	Revenue Forest
			Total	**0.35**	

Segment 10							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
68020	S10R1	641271.3	2477052		S10L1	641186.9	2477057
68040	S10R2	641286.1	2477066		S10L2	641201.7	2477070
68060	S10R3	641300.9	2477079		S10L3	641216.5	2477084
68080	S10R4	641315.7	2477093		S10L4	641231.3	2477097
68100	S10R5	641330.5	2477106		S10L5	641246.1	2477111
68120	S10R6	641345.3	2477120		S10L6	641260.9	2477124
68140	S10R7	641360.1	2477133		S10L7	641275.7	2477138
68160	S10R8	641374.9	2477147		S10L8	641290.6	2477151
68180	S10R9	641389.7	2477160		S10L9	641305.4	2477164
68200	S10R10	641404.5	2477173		S10L10	641320.2	2477178
68220	S10R11	641419.3	2477187		S10L11	641335	2477191
68240	S10R12	641434.2	2477200		S10L12	641349.8	2477205

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Segment 11

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	Katghora	Banbandha	139/1	0.202	Revenue Forest
			101	0.17	Revenue Forest
			Total	**0.372**	

Segment 11							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
68540	S11R1	641656.3	2477402		S11L1	641571.9	2477406
68560	S11R2	641671.1	2477415		S11L2	641586.8	2477420
68580	S11R3	641685.9	2477429		S11L3	641601.6	2477433
68600	S11R4	641700.7	2477442		S11L4	641616.4	2477447
68620	S11R5	641715.5	2477456		S11L5	641631.2	2477460
68640	S11R6	641730.4	2477469		S11L6	641646	2477474
68660	S11R7	641745.2	2477483		S11L7	641660.8	2477487
68680	S11R8	641760	2477496		S11L8	641675.6	2477500
68700	S11R9	641774.8	2477509		S11L9	641690.4	2477514
68720	S11R10	641789.6	2477523		S11L10	641705.2	2477527
68740	S11R11	641804.5	2477536		S11L11	641720	2477541
68760	S11R12	641819.5	2477549		S11L12	641734.8	2477554
68780	S11R13	641834.8	2477562		S11L13	641749.7	2477568
68800	S11R14	641850.4	2477575		S11L14	641764.5	2477581
68820	S11R15	641866.1	2477587		S11L15	641779.6	2477594
68840	S11R16	641882.1	2477599		S11L16	641794.8	2477607
68860	S11R17	641898.1	2477611		S11L17	641810.4	2477620
68880	S11R18	641914.1	2477623		S11L18	641826.1	2477632

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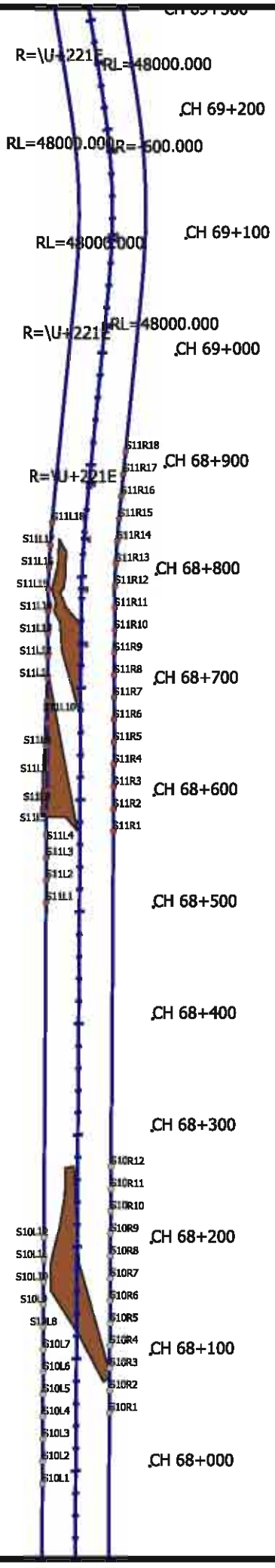
DGPS Map



Segment 10
Area- 0.35 Ha
Segment 11
Area-0.372 Ha

N

Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)

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- DGPS Coordinate
- PROW
- Forest_land
- PROW Chainage

100 0 100 200 300 400 m

Segment 12

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Banbandha**	3	2.19	Protected Forest
			5/1	2.57	Protected Forest
			128/1	0.143	Protected Forest
		Kapot	727	0.376	Protected Forest
			718/1	0.57	Protected Forest
			–	2.42	Protected Forest
		Ghuichuwa	148	0.43	Revenue Forest
			126/1k	0.034	Revenue Forest
			125	0.05	Revenue Forest
			156/1	0.64	Revenue Forest
			163	0.11	Revenue Forest
			162/1k	0.95	Revenue Forest
			258/1	0.607	Orange Forest
		Kanjipani	526	0.12	Revenue Forest
			607/1	1.05	Revenue Forest
			607/37	0.45	Revenue Forest
			607/55	0.137	Revenue Forest
			427	2.7	Orange Forest
			Total	15.547	

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Segment 12							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
69460	S12R1	642320.2	2478033		S12L1	642239.7	2478033
69480	S12R2	642334.4	2478047		S12L2	642252.8	2478048
69500	S12R3	642348.7	2478061		S12L3	642266.3	2478063
69520	S12R4	642363.3	2478074		S12L4	642280.2	2478078
69540	S12R5	642377.8	2478088		S12L5	642294.4	2478092
69560	S12R6	642392.4	2478102		S12L6	642308.8	2478105
69580	S12R7	642406.9	2478116		S12L7	642323.3	2478119
69600	S12R8	642421.5	2478129		S12L8	642337.9	2478133
69620	S12R9	642436.1	2478143		S12L9	642352.4	2478147
69640	S12R10	642450.6	2478157		S12L10	642367	2478160
69660	S12R11	642465.2	2478170		S12L11	642381.6	2478174
69680	S12R12	642479.8	2478184		S12L12	642396.1	2478188
69700	S12R13	642494.3	2478198		S12L13	642410.7	2478201
69720	S12R14	642508.9	2478212		S12L14	642425.2	2478215
69740	S12R15	642523.4	2478225		S12L15	642439.8	2478229
69760	S12R16	642538.1	2478239		S12L16	642454.4	2478243
69780	S12R17	642553	2478252		S12L17	642468.9	2478256
69800	S12R18	642568.1	2478265		S12L18	642483.5	2478270
69820	S12R19	642583.8	2478278		S12L19	642498.2	2478284
69840	S12R20	642599.9	2478290		S12L20	642513	2478297
69860	S12R21	642616.5	2478301		S12L21	642528.2	2478310
69880	S12R22	642633.5	2478311		S12L22	642543.7	2478323
69900	S12R23	642651	2478321		S12L23	642559.7	2478335
69920	S12R24	642668.7	2478330		S12L24	642576.1	2478346
69940	S12R25	642686.6	2478339		S12L25	642593	2478357
69960	S12R26	642704.5	2478348		S12L26	642610.2	2478367
69980	S12R27	642722.5	2478357		S12L27	642627.8	2478377
70000	S12R28	642740.5	2478365		S12L28	642645.5	2478386
70020	S12R29	642758.5	2478374		S12L29	642663.4	2478395
70040	S12R30	642776.5	2478383		S12L30	642681.4	2478403
70060	S12R31	642794.5	2478392		S12L31	642699.4	2478412
70080	S12R32	642812.5	2478400		S12L32	642717.4	2478421
70100	S12R33	642830.5	2478409		S12L33	642735.4	2478430
70120	S12R34	642848.5	2478418		S12L34	642753.4	2478438
70140	S12R35	642866.5	2478427		S12L35	642771.4	2478447
70160	S12R36	642884.5	2478435		S12L36	642789.4	2478456

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70180	S12R37	642902.5	2478444		S12L37	642807.4	2478465
70200	S12R38	642920.5	2478453		S12L38	642825.4	2478473
70220	S12R39	642938.5	2478461		S12L39	642843.4	2478482
70240	S12R40	642956.4	2478470		S12L40	642861.4	2478491
70260	S12R41	642974.4	2478479		S12L41	642879.3	2478499
70280	S12R42	642992.4	2478488		S12L42	642897.3	2478508
70300	S12R43	643010.4	2478496		S12L43	642915.3	2478517
70320	S12R44	643028.4	2478505		S12L44	642933.3	2478526
70340	S12R45	643046.4	2478514		S12L45	642951.3	2478534
70360	S12R46	643064.4	2478523		S12L46	642969.3	2478543
70380	S12R47	643082.4	2478531		S12L47	642987.3	2478552
70400	S12R48	643100.4	2478540		S12L48	643005.3	2478561
70420	S12R49	643118.4	2478549		S12L49	643023.3	2478569
70440	S12R50	643136.4	2478558		S12L50	643041.3	2478578
70460	S12R51	643154.4	2478566		S12L51	643059.3	2478587
70480	S12R52	643172.4	2478575		S12L52	643077.3	2478596
70500	S12R53	643190.3	2478584		S12L53	643095.3	2478604
70520	S12R54	643208.3	2478592		S12L54	643113.2	2478613
70540	S12R55	643226.3	2478601		S12L55	643131.2	2478622
70560	S12R56	643244.3	2478610		S12L56	643149.2	2478630
70580	S12R57	643262.3	2478619		S12L57	643167.2	2478639
70600	S12R58	643280.3	2478627		S12L58	643185.2	2478648
70620	S12R59	643298.3	2478636		S12L59	643203.2	2478657
70640	S12R60	643316.3	2478645		S12L60	643221.2	2478665
70660	S12R61	643334.3	2478654		S12L61	643239.2	2478674
70680	S12R62	643352.3	2478662		S12L62	643257.2	2478683
70700	S12R63	643370.2	2478671		S12L63	643275.2	2478692
70720	S12R64	643388	2478680		S12L64	643293.2	2478700
70740	S12R65	643405.6	2478690		S12L65	643311.2	2478709
70760	S12R66	643422.9	2478700		S12L66	643329.1	2478718
70780	S12R67	643439.8	2478711		S12L67	643347.1	2478727
70800	S12R68	643456.2	2478722		S12L68	643364.8	2478736
70820	S12R69	643472	2478734		S12L69	643382.3	2478746
70840	S12R70	643487.3	2478747		S12L70	643399.4	2478756
70860	S12R71	643501.9	2478761		S12L71	643416	2478767
70880	S12R72	643515.9	2478775		S12L72	643432	2478779
70900	S12R73	643529.3	2478790		S12L73	643447.3	2478792
70920	S12R74	643541.9	2478805		S12L74	643461.9	2478806
70940	S12R75	643553.8	2478822		S12L75	643475.8	2478820
70960	S12R76	643564.9	2478838		S12L76	643488.9	2478835
70980	S12R77	643575.2	2478855		S12L77	643501.1	2478851
71000	S12R78	643584.7	2478873		S12L78	643512.4	2478868

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71020	S12R79	643593.5	2478891		S12L79	643522.8	2478885
71040	S12R80	643601.5	2478909		S12L80	643532.3	2478902
71060	S12R81	643609.1	2478928		S12L81	643540.9	2478920
71080	S12R82	643616.1	2478946		S12L82	643548.8	2478939
71100	S12R83	643623	2478965		S12L83	643556.1	2478957
71120	S12R84	643629.6	2478984		S12L84	643563.1	2478976
71140	S12R85	643636.3	2479003		S12L85	643569.8	2478995
71160	S12R86	643643	2479022		S12L86	643576.5	2479014
71180	S12R87	643649.7	2479041		S12L87	643583.2	2479033
71200	S12R88	643656.4	2479059		S12L88	643589.8	2479051
71220	S12R89	643663.1	2479078		S12L89	643596.5	2479070
71240	S12R90	643669.7	2479097		S12L90	643603.2	2479089
71260	S12R91	643676.4	2479116		S12L91	643609.9	2479108
71280	S12R92	643683.1	2479135		S12L92	643616.6	2479127
71300	S12R93	643689.8	2479154		S12L93	643623.3	2479146
71320	S12R94	643696.5	2479173		S12L94	643629.9	2479164
71340	S12R95	643703.2	2479191		S12L95	643636.6	2479183
71360	S12R96	643709.9	2479210		S12L96	643643.3	2479202
71380	S12R97	643715.7	2479229		S12L97	643650	2479221
71400	S12R98	643720.9	2479249		S12L98	643656.3	2479240
71420	S12R99	643726.2	2479268		S12L99	643661.6	2479259
71440	S12R100	643731.5	2479287		S12L100	643666.9	2479279
71460	S12R101	643736.8	2479307		S12L101	643672.2	2479298
71480	S12R102	643742.1	2479326		S12L102	643677.5	2479317
71500	S12R103	643747.8	2479345		S12L103	643682.8	2479336
71520	S12R104	643753.9	2479364		S12L104	643688.2	2479356
71540	S12R105	643760	2479383		S12L105	643694.3	2479375
71560	S12R106	643766.6	2479402		S12L106	643700.4	2479394
71580	S12R107	643773.4	2479421		S12L107	643706.8	2479413
71600	S12R108	643780.1	2479440		S12L108	643713.5	2479432
71620	S12R109	643786.8	2479458		S12L109	643720.2	2479450
71640	S12R110	643793.5	2479477		S12L110	643726.9	2479469
71660	S12R111	643800	2479496		S12L111	643733.7	2479488
71680	S12R112	643806.4	2479515		S12L112	643740.3	2479507
71700	S12R113	643812.8	2479534		S12L113	643746.7	2479526
71720	S12R114	643819.2	2479553		S12L114	643753.1	2479545
71740	S12R115	643825.6	2479572		S12L115	643759.5	2479564
71760	S12R116	643832.7	2479591		S12L116	643765.9	2479583
71780	S12R117	643840.1	2479609		S12L117	643772.4	2479602
71800	S12R118	643847.6	2479628		S12L118	643779.9	2479620
71820	S12R119	643855	2479646		S12L119	643787.3	2479639
71840	S12R120	643862.4	2479665		S12L120	643794.7	2479657

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71860	S12R121	643869.2	2479684		S12L121	643802.2	2479676
71880	S12R122	643876	2479703		S12L122	643809.4	2479695
71900	S12R123	643882.8	2479721		S12L123	643816.1	2479713
71920	S12R124	643889.5	2479740		S12L124	643822.9	2479732
71940	S12R125	643896.3	2479759		S12L125	643829.7	2479751
71960	S12R126	643903.1	2479778		S12L126	643836.4	2479770
71980	S12R127	643909.8	2479797		S12L127	643843.2	2479789
72000	S12R128	643916.6	2479816		S12L128	643850	2479807
72020	S12R129	643923.4	2479834		S12L129	643856.7	2479826
72040	S12R130	643930.1	2479853		S12L130	643863.5	2479845
72060	S12R131	643936.9	2479872		S12L131	643870.2	2479864
72080	S12R132	643943.7	2479891		S12L132	643877	2479883
72100	S12R133	643950.4	2479910		S12L133	643883.8	2479902
72120	S12R134	643957.2	2479928		S12L134	643890.5	2479920
72140	S12R135	643964	2479947		S12L135	643897.3	2479939
72160	S12R136	643970.7	2479966		S12L136	643904.1	2479958
72180	S12R137	643977.5	2479985		S12L137	643910.8	2479977
72200	S12R138	643984.2	2480004		S12L138	643917.6	2479996
72220	S12R139	643990.7	2480023		S12L139	643924.4	2480014
72240	S12R140	643997.2	2480042		S12L140	643930.9	2480033
72260	S12R141	644003.7	2480061		S12L141	643937.4	2480052
72280	S12R142	644010.2	2480079		S12L142	643943.9	2480071
72300	S12R143	644019.4	2480097		S12L143	643950.4	2480090
72320	S12R144	644030.8	2480113		S12L144	643957	2480109
72340	S12R145	644042.1	2480130		S12L145	643966.8	2480126
72360	S12R146	644053.5	2480146		S12L146	643978.1	2480143
72380	S12R147	644066.2	2480162		S12L147	643989.5	2480159
72400	S12R148	644079.6	2480177		S12L148	644000.8	2480176
72420	S12R149	644093	2480191		S12L149	644012.6	2480192
72440	S12R150	644106.4	2480206		S12L150	644026	2480207
72460	S12R151	644120.7	2480220		S12L151	644039.3	2480222
72480	S12R152	644136.7	2480232		S12L152	644052.7	2480236
72500	S12R153	644152.6	2480244		S12L153	644066.1	2480251
72520	S12R154	644168.6	2480256		S12L154	644080.6	2480265
72540	S12R155	644184.5	2480268		S12L155	644096.5	2480277
72560	S12R156	644200.5	2480280		S12L156	644112.5	2480289
72580	S12R157	644216.4	2480293		S12L157	644128.4	2480301
72600	S12R158	644232.1	2480305		S12L158	644144.4	2480313
72620	S12R159	644247.3	2480318		S12L159	644160.3	2480325
72640	S12R160	644262.5	2480331		S12L160	644176.3	2480337
72660	S12R161	644277.7	2480344		S12L161	644192.1	2480350
72680	S12R162	644293	2480357		S12L162	644207.2	2480363
72700	S12R163	644308.4	2480370		S12L163	644222.4	2480376

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72720	S12R164	644323.7	2480382		S12L164	644237.6	2480389
72740	S12R165	644338.8	2480396		S12L165	644252.9	2480402
72760	S12R166	644353.9	2480409		S12L166	644268.4	2480414
72780	S12R167	644369.6	2480421		S12L167	644283.7	2480427
72800	S12R168	644385.3	2480433		S12L168	644298.8	2480440
72820	S12R169	644401.1	2480446		S12L169	644313.9	2480453
72840	S12R170	644416.9	2480458		S12L170	644329.4	2480466
72860	S12R171	644432.7	2480470		S12L171	644345.2	2480478
72880	S12R172	644448	2480483		S12L172	644361	2480490
72900	S12R173	644463.4	2480496		S12L173	644376.8	2480503
72920	S12R174	644478.7	2480509		S12L174	644392.5	2480515
72940	S12R175	644494.1	2480522		S12L175	644408	2480528
72960	S12R176	644509.4	2480534		S12L176	644423.3	2480541
72980	S12R177	644525.1	2480547		S12L177	644438.6	2480553
73000	S12R178	644540.9	2480559		S12L178	644454	2480566
73020	S12R179	644556.7	2480571		S12L179	644469.3	2480579
73040	S12R180	644572.5	2480584		S12L180	644485	2480592
73060	S12R181	644588.3	2480596		S12L181	644500.8	2480604
73240	S12R182	644730.9	2480706		S12L182	644690.7	2480751
73260	S12R183	644746.9	2480718		S12L183	644706.7	2480763
73280	S12R184	644762.5	2480730		S12L184	644722.4	2480775
73300	S12R185	644778.1	2480743		S12L185	644738	2480787
73320	S12R186	644793.7	2480755		S12L186	644753.6	2480800
74320	S12R187	645573	2481381		S12L187	645517.6	2481413
74340	S12R188	645588.3	2481394		S12L188	645533	2481426
74360	S12R189	645603.6	2481407		S12L189	645548.3	2481439
74380	S12R190	645618.9	2481420		S12L190	645563.6	2481452
74400	S12R191	645634.2	2481433		S12L191	645578.9	2481464
74420	S12R192	645649.5	2481446		S12L192	645594.2	2481477
74440	S12R193	645664.8	2481458		S12L193	645609.5	2481490
74460	S12R194	645680.1	2481471		S12L194	645624.8	2481503
74480	S12R195	645695.4	2481484		S12L195	645640	2481516
74500	S12R196	645710.7	2481497		S12L196	645655.3	2481529
74520	S12R197	645726.5	2481509		S12L197	645670.6	2481542
74540	S12R198	645743	2481521		S12L198	645686.1	2481554
74560	S12R199	645759.6	2481532		S12L199	645702.6	2481566
74580	S12R200	645776.1	2481543		S12L200	645719.2	2481577
74600	S12R201	645792.7	2481554		S12L201	645735.7	2481588
74620	S12R202	645808.5	2481566		S12L202	645752.3	2481599
74640	S12R203	645823.6	2481579		S12L203	645768.5	2481611
74660	S12R204	645838.7	2481593		S12L204	645783.6	2481624
74680	S12R205	645854.2	2481605		S12L205	645798.6	2481637
74700	S12R206	645869.9	2481618		S12L206	645814.1	2481650

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74720	S12R207	645885.5	2481630		S12L207	645829.8	2481662
74740	S12R208	645900.9	2481643		S12L208	645845.4	2481675
74880	S12R209	646010.4	2481730		S12L209	645860.9	2481688
74900	S12R210	646025.6	2481743		S12L210	645955	2481762
74920	S12R211	646040.8	2481756		S12L211	645970.4	2481775
74940	S12R212	646056	2481769		S12L212	645985.6	2481788
74960	S12R213	646071.2	2481782		S12L213	646000.8	2481801
74980	S12R214	646086.9	2481795		S12L214	646016	2481814
75000					S12L215	646031.2	2481827
75020					S12L216	646046.8	2481839

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वन मण्डलाधिकारी
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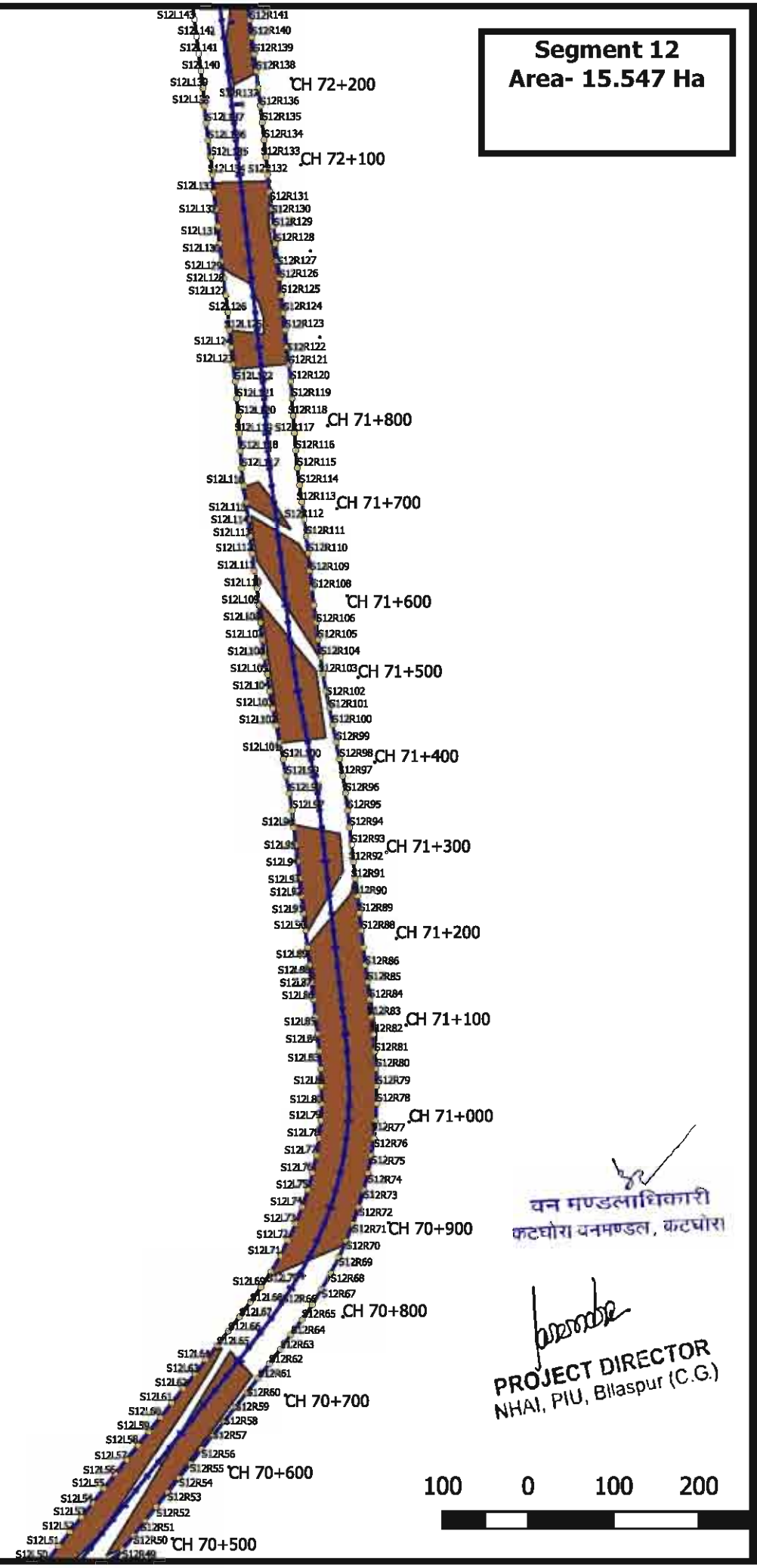
DGPS Map



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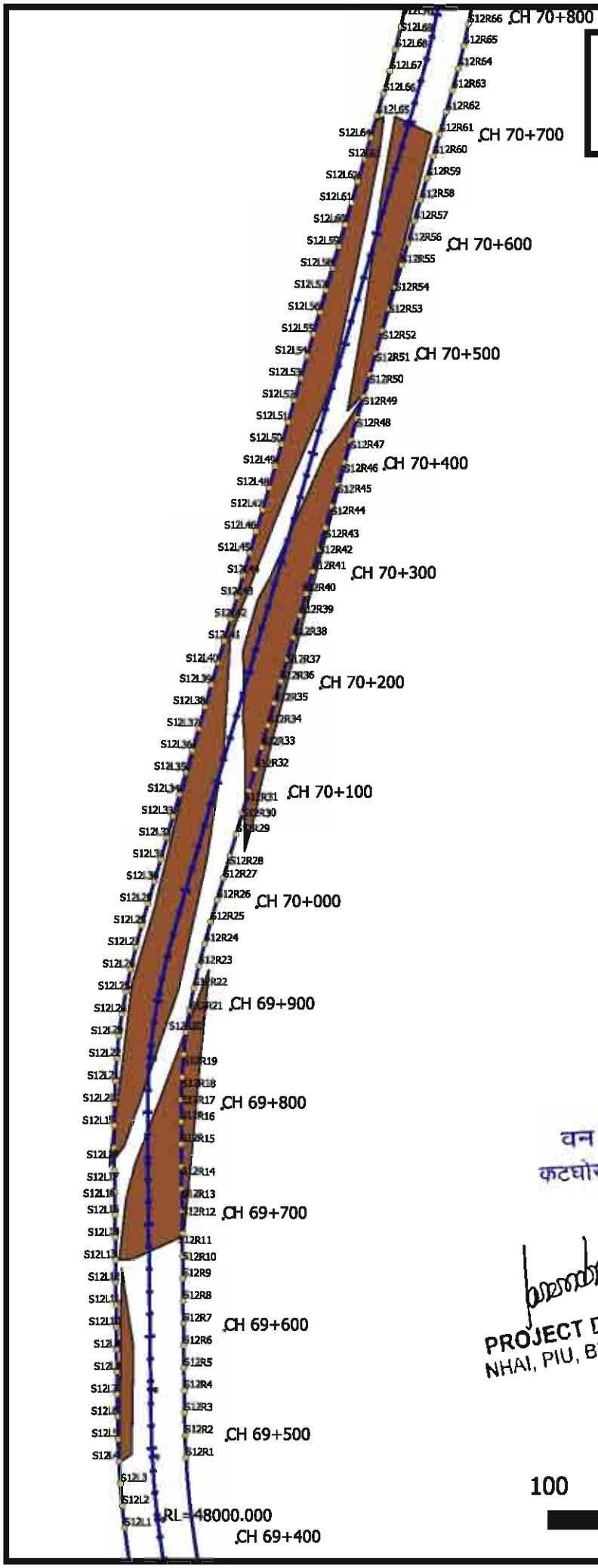
DGPS Map



Segment 12
Area- 15.547 Ha

N

Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)

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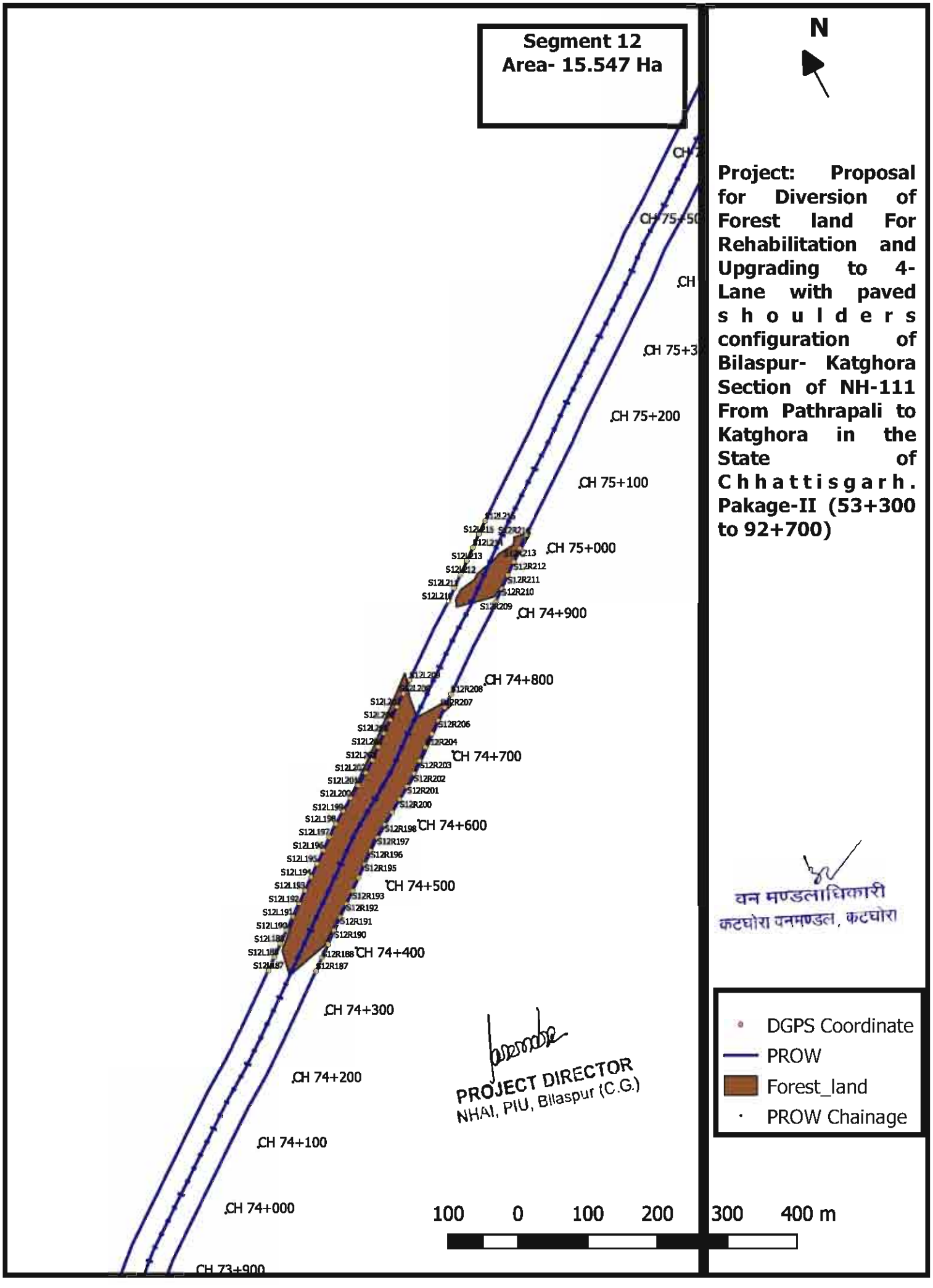
- DGPS Coordinate
- PROW
- Forest_land
- PROW Chainage

100 0 100 200 300 400 m

DGPS Map


Segment 12
Area- 15.547 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 75+000
CH 74+900
CH 74+800
CH 74+700
CH 74+600
CH 74+500
CH 74+400
CH 74+300
CH 74+200
CH 74+100
CH 74+000
CH 73+900
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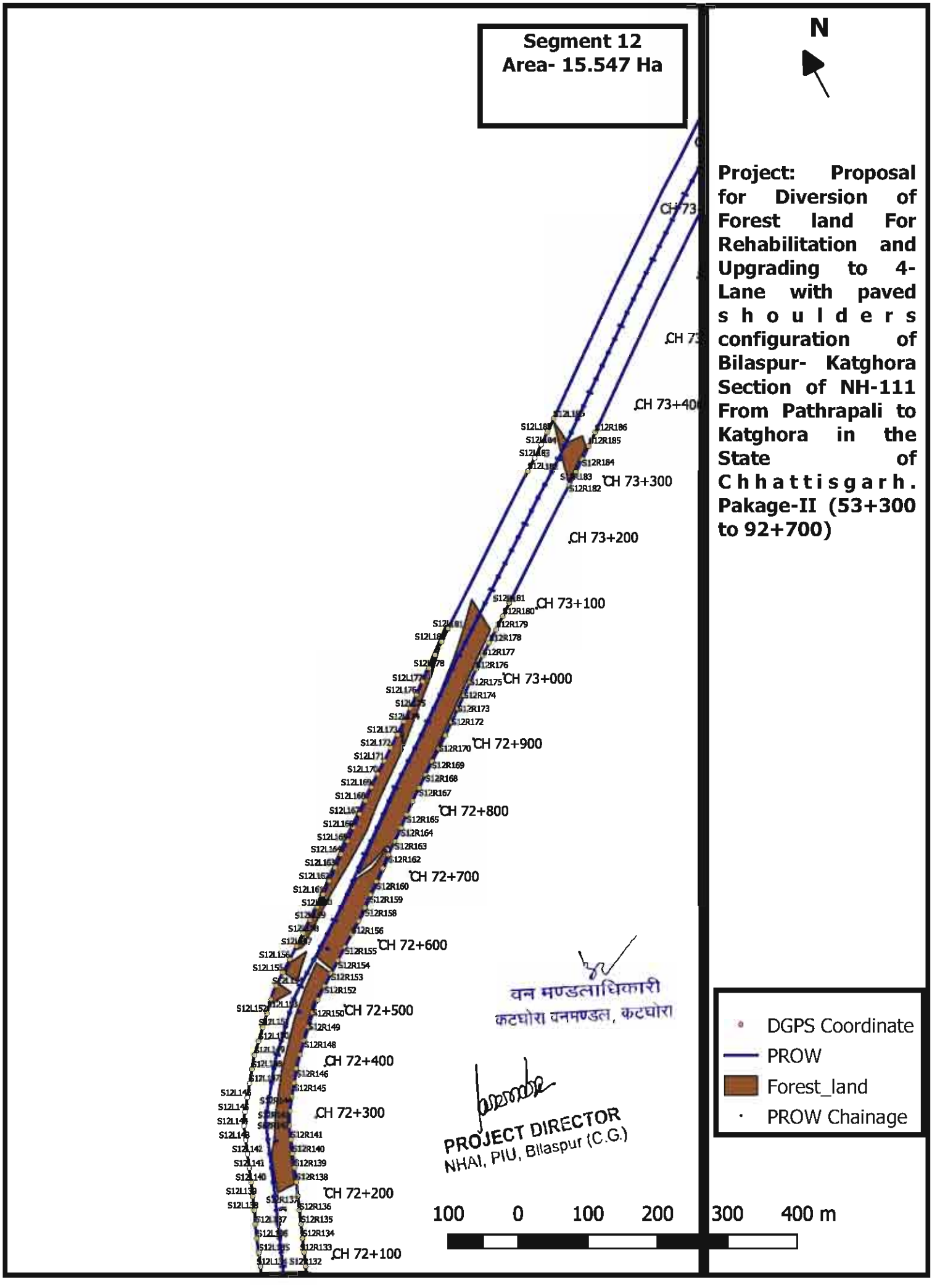
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

DGPS Map


Segment 12
Area- 15.547 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 73+300
CH 73+200
CH 73+100
CH 73+000
CH 72+900
CH 72+800
CH 72+700
CH 72+600
CH 72+500
CH 72+400
CH 72+300
CH 72+200
CH 72+100
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DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 13

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Kutelamuda**	5/1k	0.708	Revenue Forest
			44	0.036	Revenue Forest
			57	0.04	Revenue Forest
			Total	**0.784**	

Segment 13							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
77140	S13R1	648004.4	2482636		S13L1	647980.7	2482694
77160	S13R2	648024.2	2482639		S13L2	648000.5	2482696
77180	S13R3	648044.1	2482641		S13L3	648020.4	2482699
77200	S13R4	648063.9	2482644		S13L4	648040.2	2482701
77220	S13R5	648083.7	2482647		S13L5	648060	2482704
77240	S13R6	648103.4	2482650		S13L6	648079.8	2482707
77260	S13R7	648123.2	2482653		S13L7	648099.5	2482710
77280	S13R8	648143	2482656		S13L8	648119.3	2482713
77300	S13R9	648162.7	2482659		S13L9	648139.1	2482716
77320	S13R10	648182.4	2482663		S13L10	648158.8	2482720
77340	S13R11	648202.2	2482666		S13L11	648178.5	2482723
77540	S13R12	648400	2482695		S13L12	648376.3	2482753
77560	S13R13	648419.7	2482698		S13L13	648396.1	2482755
77580	S13R14	648439.5	2482702		S13L14	648415.8	2482759
77780	S13R15	648638.1	2482724		S13L15	648634.2	2482784
77800	S13R16	648657.7	2482728		S13L16	648653.7	2482789
77820	S13R17	648677.2	2482733		S13L17	648673.1	2482794
77840	S13R18	648696.7	2482737		S13L18	648692.8	2482797
77860	S13R19	648716.5	2482740				

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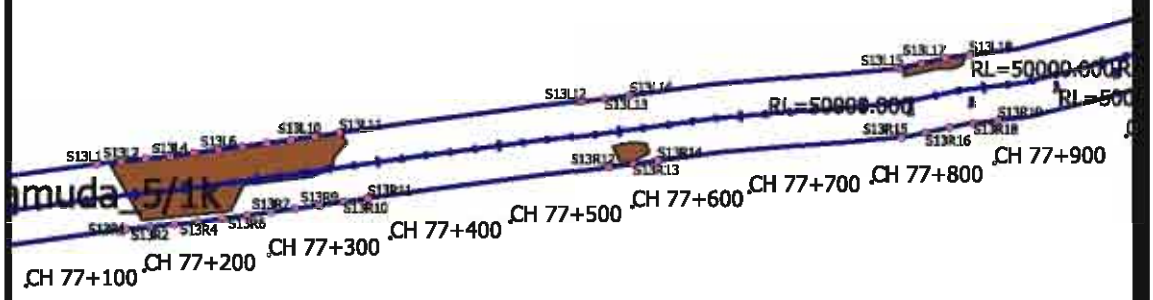
DGPS Map

Segment 13
Area- 0.784 Ha



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N

- DGPS Coordinate
- PROW
- Forest_land
- PROW Chainage

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100 0 100 200 300 400 m

Segment 14

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pali	**Katghora**	**Kutelamuda**	96/1k	0.41	Revenue Forest
			707/1k	0.445	Revenue Forest
			713/1k	0.631	Orange Forest
		Madanpur	628	0.267	Revenue Forest
			593/1	1.308	Orange Forest
			631/1, 634/4	0.469	Orange Forest
			684/1	0.081	Orange Forest
			785/1, 785/2	0.02	Revenue Forest
			Total	**3.631**	

Segment 14							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
78980	S14R1	649745.3	2483153		S14L1	649654.5	2483165
79000	S14R2	649761.9	2483164		S14L2	649671.3	2483176
79020	S14R3	649778.5	2483175		S14L3	649688.2	2483187
79040	S14R4	649795.1	2483186		S14L4	649705	2483198
79060	S14R5	649811.6	2483197		S14L5	649721.5	2483209
79080	S14R6	649828	2483209		S14L6	649738.1	2483220
79100	S14R7	649844.4	2483220		S14L7	649754.7	2483231
79120	S14R8	649860.8	2483232		S14L8	649771.3	2483242
79180	S14R9	649909.9	2483266		S14L9	649820.5	2483277
79200	S14R10	649928	2483273		S14L10	649836.8	2483288
79220	S14R11	649945.6	2483283		S14L11	649853.1	2483300
79240	S14R12	649963.2	2483293		S14L12	649869.5	2483311
79260	S14R13	649981.2	2483301		S14L13	649885.8	2483323
79280	S14R14	649999.7	2483309		S14L14	649904.1	2483329
79300	S14R15	650018.3	2483316		S14L15	649921.7	2483338
79320	S14R16	650037.2	2483323		S14L16	649939.3	2483348
79700	S14R17	650412	2483378		S14L17	650308.1	2483427
79720	S14R18	650431.9	2483380		S14L18	650328.1	2483429
79740	S14R19	650451.7	2483383		S14L19	650348	2483431
79760	S14R20	650471.4	2483386		S14L20	650367.8	2483433
79780	S14R21	650491.1	2483389		S14L21	650387.7	2483435
79800	S14R22	650511	2483392		S14L22	650407.5	2483438

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79820	S14R23	650530.8	2483394		S14L23	650427.4	2483440
79840	S14R24	650550.4	2483398		S14L24	650447.2	2483443
79860	S14R25	650569.7	2483403		S14L25	650466.9	2483446
79880	S14R26	650589	2483409		S14L26	650486.7	2483449
79900	S14R27	650608.2	2483414		S14L27	650506.5	2483452
79920	S14R28	650627.3	2483420		S14L28	650526.3	2483454
79940	S14R29	650646.4	2483426		S14L29	650545.8	2483459
79960	S14R30	650664.7	2483434		S14L30	650565	2483464
79980	S14R31	650682.7	2483443		S14L31	650584.3	2483470
80000	S14R32	650700.7	2483452		S14L32	650603.4	2483476
80020	S14R33	650719.2	2483459		S14L33	650622.5	2483482
80040	S14R34	650737.7	2483467		S14L34	650640.9	2483489
80060	S14R35	650756.3	2483474		S14L35	650658.9	2483498
80080	S14R36	650774.9	2483482		S14L36	650676.9	2483507
80100	S14R37	650793.5	2483489		S14L37	650695.4	2483514
80120	S14R38	650812	2483496		S14L38	650713.9	2483522
80140	S14R39	650830.6	2483504		S14L39	650732.5	2483529
80160	S14R40	650849.2	2483511		S14L40	650751.1	2483537
80180	S14R41	650867.8	2483518		S14L41	650769.7	2483544
80200	S14R42	650886.4	2483526		S14L42	650788.3	2483551
80220	S14R43	650905.1	2483533		S14L43	650806.9	2483559
80240	S14R44	650923.7	2483540		S14L44	650825.5	2483566
80260	S14R45	650942.9	2483546		S14L45	650844.1	2483574
80280	S14R46	650962.4	2483550		S14L46	650862.7	2483581
80300	S14R47	650981.8	2483555		S14L47	650881.3	2483588
80320	S14R48	651001.2	2483560		S14L48	650899.9	2483595
80340	S14R49	651020.6	2483565		S14L49	650918.9	2483601
80360	S14R50	651040	2483570		S14L50	650938.3	2483606
80380	S14R51	651059.4	2483575		S14L51	650957.8	2483611
80400	S14R52	651078.9	2483579		S14L52	650977.2	2483616
80420	S14R53	651098.4	2483583		S14L53	650996.6	2483621
80440	S14R54	651118	2483588		S14L54	651016	2483626
80460	S14R55	651137.5	2483592		S14L55	651035.4	2483630
80480	S14R56	651157	2483596		S14L56	651054.8	2483635
80740	S14R57	651413	2483642		S14L57	651310	2483685
80760	S14R58	651432.7	2483645		S14L58	651329.7	2483688
80780	S14R59	651452.4	2483649		S14L59	651349.4	2483692
80800	S14R60	651472.1	2483652		S14L60	651369.1	2483695
80820	S14R61	651491.7	2483656		S14L61	651388.8	2483699
80840	S14R62	651511.4	2483660		S14L62	651408.5	2483702
80860	S14R63	651530.9	2483664		S14L63	651428.2	2483706
80880	S14R64	651550.5	2483668		S14L64	651447.9	2483709
81980	S14R65	652624.4	2483889		S14L65	652524.3	2483920

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82000	S14R66	652643.5	2483895		S14L66	652543.4	2483926
82020	S14R67	652662.7	2483901		S14L67	652562.4	2483932
82040	S14R68	652681.8	2483907		S14L68	652581.5	2483938
82060	S14R69	652701.1	2483912		S14L69	652600.6	2483944

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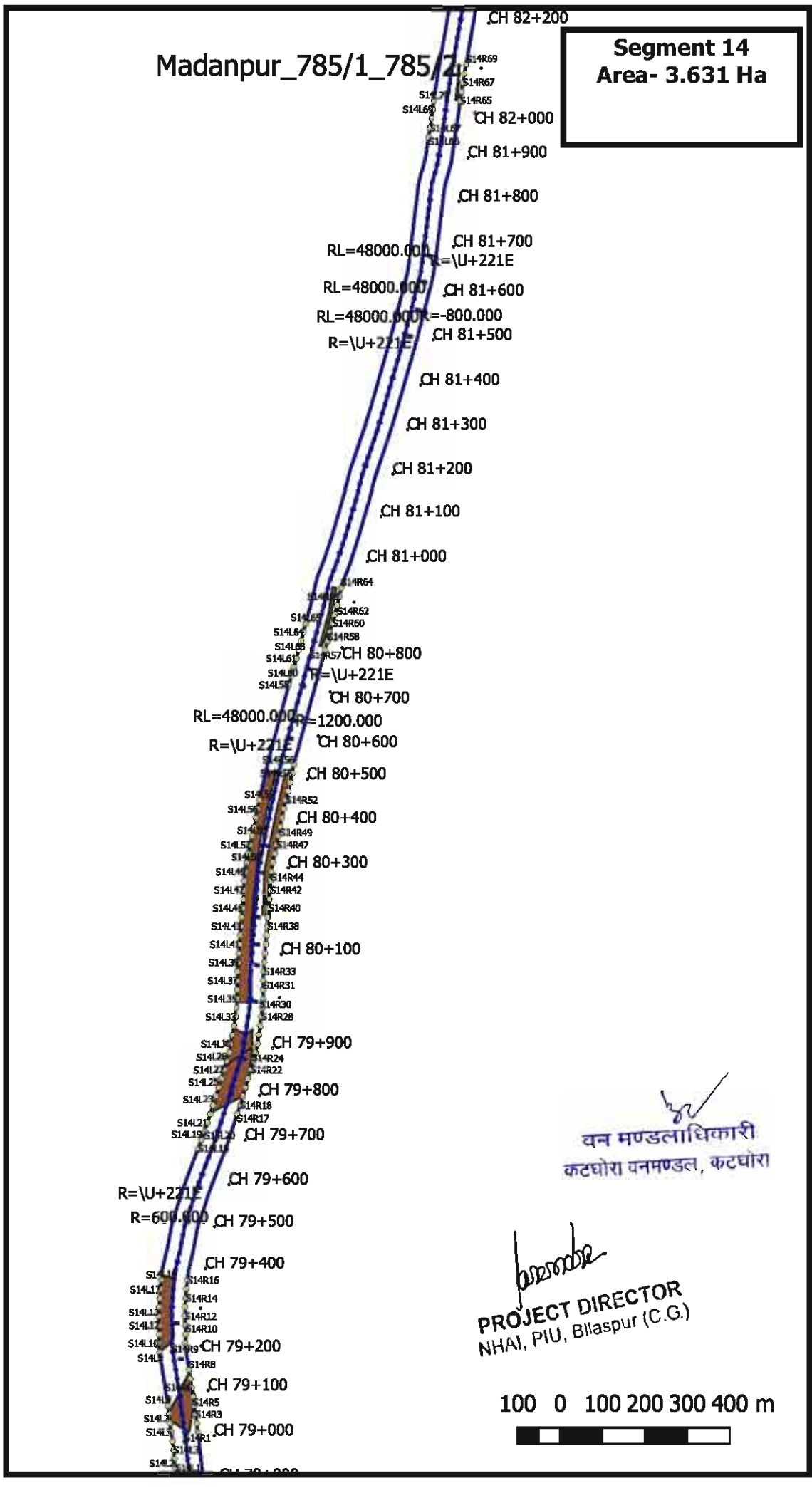
DGPS Map



Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)

Segment 15

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Katghora	Katghora	Mohanpur	93	0.137	Revenue Forest
			100/1	0.998	Revenue Forest
			109/1/k	0.109	Revenue Forest
			71/1/k	0.12	Revenue Forest
			Total	**1.364**	

Segment 15							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
83240	S15R1	653822.6	2484241		S15L1	653729.9	2484256
83260	S15R2	653839.8	2484251		S15L2	653747	2484266
83280	S15R3	653857.1	2484261		S15L3	653764.2	2484276
83300	S15R4	653874.3	2484271		S15L4	653781.4	2484286
83320	S15R5	653891.5	2484282		S15L5	653798.6	2484296
83680	S15R6	654184	2484490		S15L6	654096.8	2484497
83700	S15R7	654199.6	2484503		S15L7	654112.3	2484509
83720	S15R8	654215.2	2484515		S15L8	654127.9	2484522
83740	S15R9	654230.7	2484528		S15L9	654143.5	2484534
83760	S15R10	654246.3	2484540		S15L10	654159	2484547
83780	S15R11	654261.8	2484553		S15L11	654174.6	2484560
83800	S15R12	654277.2	2484566		S15L12	654190.2	2484572
83820	S15R13	654292.6	2484578		S15L13	654205.7	2484585
83840	S15R14	654307.3	2484592		S15L14	654221.3	2484597
83860	S15R15	654321.7	2484606		S15L15	654236.7	2484610
83880	S15R16	654336.1	2484620		S15L16	654252.1	2484623
83900	S15R17	654350.6	2484634		S15L17	654266.8	2484636
83920	S15R18	654365.1	2484647		S15L18	654281.2	2484650
83940	S15R19	654379.6	2484661		S15L19	654295.6	2484664
83960	S15R20	654394.2	2484675		S15L20	654310.1	2484678
83980	S15R21	654409.1	2484688		S15L21	654324.6	2484692
84000	S15R22	654424.1	2484701		S15L22	654339.1	2484705
84020	S15R23	654439.6	2484714		S15L23	654353.7	2484719

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84040	S15R24	654456.3	2484725		S15L24	654368.6	2484732
84060	S15R25	654473.1	2484736		S15L25	654383.6	2484746
84080	S15R26	654489.4	2484747		S15L26	654398.7	2484759
84100	S15R27	654505.6	2484759		S15L27	654415.4	2484770
84120	S15R28	654521.9	2484771		S15L28	654432.1	2484781
84140	S15R29	654537.8	2484783		S15L29	654448.6	2484792
84160	S15R30	654553.8	2484795		S15L30	654464.9	2484804
84180	S15R31	654570.1	2484807		S15L31	654481.1	2484815
84200	S15R32	654586.4	2484818		S15L32	654497.2	2484827
84220	S15R33	654602.6	2484830		S15L33	654513.1	2484839
84240	S15R34	654618.4	2484842		S15L34	654529.3	2484851
84260	S15R35	654634.2	2484854		S15L35	654545.6	2484863

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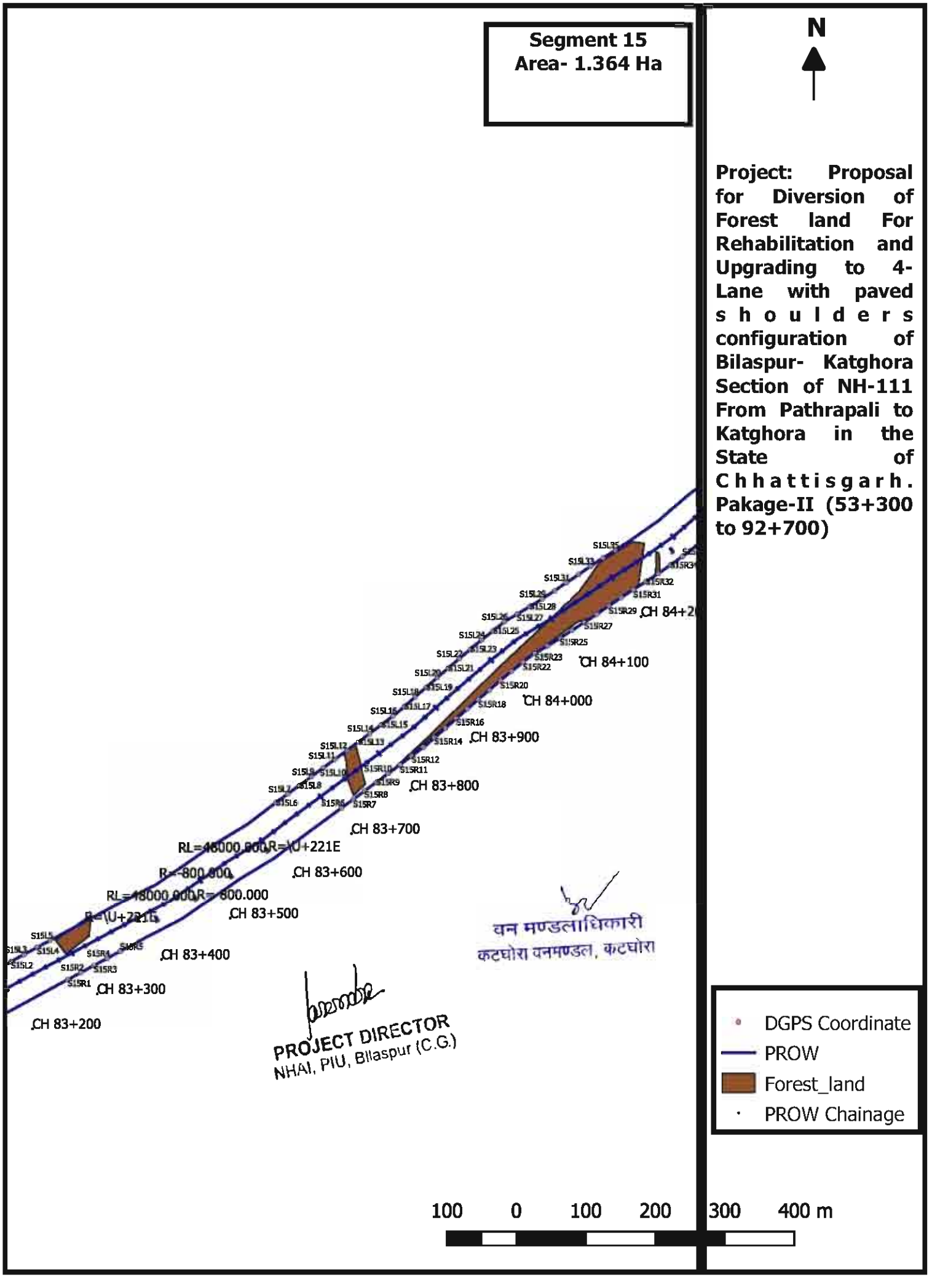
DGPS Map


Segment 15
Area- 1.364 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 84+200
CH 84+100
CH 84+000
CH 83+900
CH 83+800
CH 83+700
CH 83+600
CH 83+500
CH 83+400
CH 83+300
CH 83+200
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कटघोरा वनमण्डल, कटघोरा
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 16

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pondi Uprora	**Katghora**	**Sutarra**	211/1	2.307	Protected Forest
			Total	**2.307**	

Segment 16							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
86280	S16R1	655503.3	2486615		S16L1	655421.5	2486615
86300	S16R2	655517	2486629		S16L2	655435.2	2486630
86320	S16R3	655530.7	2486644		S16L3	655449	2486644
86340	S16R4	655543.7	2486659		S16L4	655462.7	2486659
86360	S16R5	655556	2486675		S16L5	655476.4	2486674
86380	S16R6	655568.4	2486690		S16L6	655490.2	2486688
86400	S16R7	655581.4	2486706		S16L7	655502.6	2486704
86420	S16R8	655594.6	2486721		S16L8	655515	2486719
86440	S16R9	655607.7	2486736		S16L9	655527.5	2486735
86460	S16R10	655621	2486751		S16L10	655540.7	2486750
86480	S16R11	655634.3	2486766		S16L11	655553.8	2486765
86500	S16R12	655648.3	2486780		S16L12	655567	2486780
86520	S16R13	655662.2	2486794		S16L13	655580.2	2486795
86540	S16R14	655676.1	2486809		S16L14	655593.8	2486810
86560	S16R15	655689.9	2486823		S16L15	655607.7	2486824
86580	S16R16	655703.8	2486837		S16L16	655621.7	2486839
86600	S16R17	655717.6	2486852		S16L17	655635.5	2486853
86620	S16R18	655731.5	2486866		S16L18	655649.4	2486867
86640	S16R19	655744.7	2486881		S16L19	655663.2	2486882
86660	S16R20	655754.9	2486898		S16L20	655677.1	2486896
86680	S16R21	655765	2486916		S16L21	655690.9	2486911
86700	S16R22	655778.3	2486930		S16L22	655702.1	2486927

PROJECT DIRECTOR
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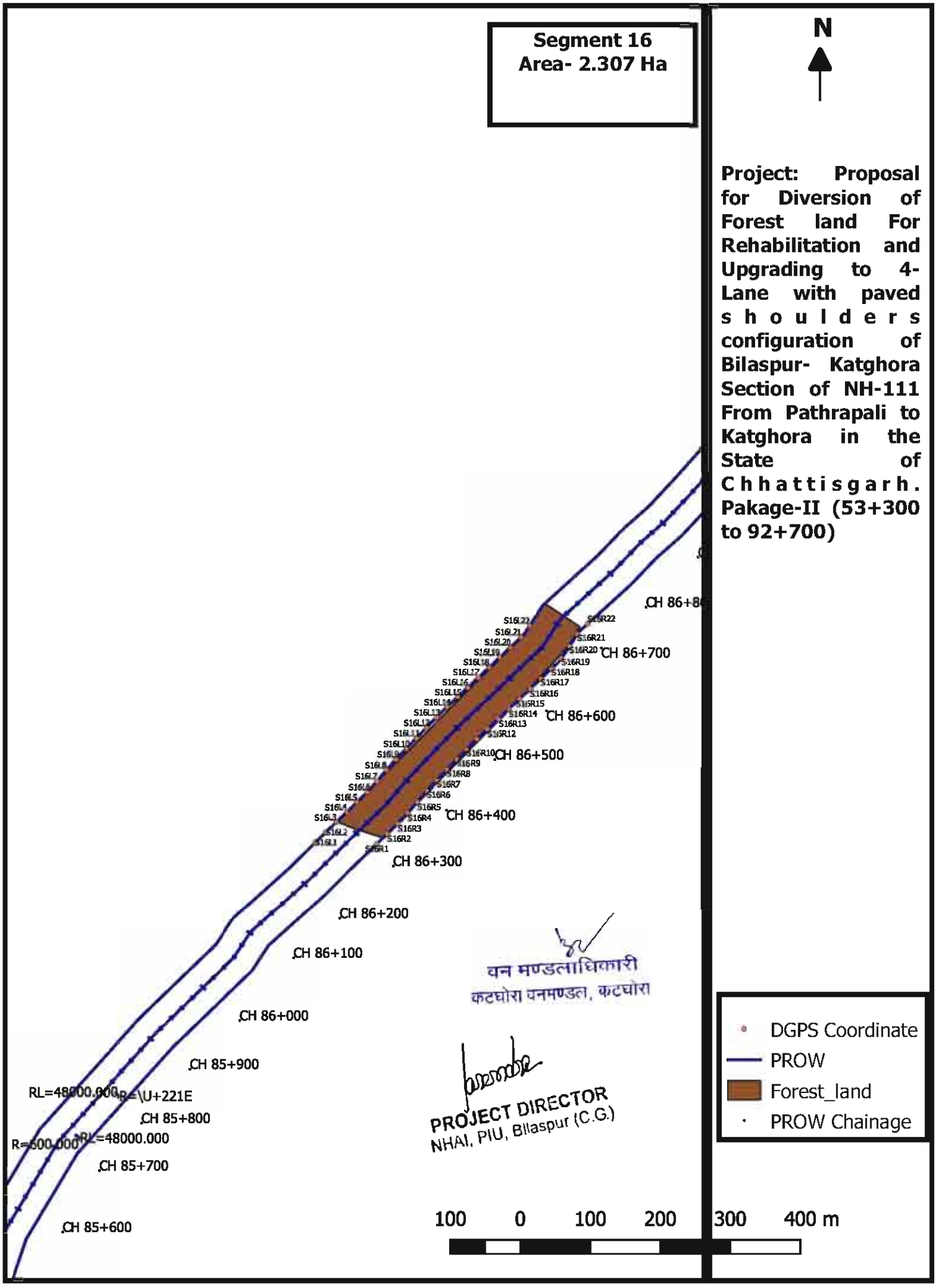
DGPS Map


Segment 16
Area- 2.307 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 86+700
CH 86+600
CH 86+500
CH 86+400
CH 86+300
CH 86+200
CH 86+100
CH 86+000
CH 85+900
CH 85+800
CH 85+700
CH 85+600
RL=48000.000
R=\U+221E
R=600.000
वन मण्डलाधिकारी
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PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 17

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pondi Uprora	**Katghora**	**Kapubahara**	372/1k	4.209	Protected Forest
			Total	**4.209**	

Segment 17							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
87040	S17R1	656006.9	2487182		S17L1	655926.2	2487182
87060	S17R2	656020.5	2487196		S17L2	655939.5	2487196
87080	S17R3	656034	2487211		S17L3	655952.8	2487211
87100	S17R4	656047.5	2487226		S17L4	655966.3	2487226
87120	S17R5	656061	2487241		S17L5	655979.8	2487241
87140	S17R6	656074.5	2487255		S17L6	655993.4	2487256
87160	S17R7	656088	2487270		S17L7	656006.9	2487270
87180	S17R8	656101.5	2487285		S17L8	656020.4	2487285
87200	S17R9	656115	2487300		S17L9	656033.9	2487300
87220	S17R10	656128.5	2487314		S17L10	656047.4	2487315
87240	S17R11	656142	2487329		S17L11	656060.9	2487329
87260	S17R12	656155.5	2487344		S17L12	656074.4	2487344
87280	S17R13	656169	2487359		S17L13	656087.9	2487359
87300	S17R14	656182.5	2487373		S17L14	656101.4	2487374
87320	S17R15	656196	2487388		S17L15	656114.9	2487388
87340	S17R16	656209.5	2487403		S17L16	656128.3	2487403
87360	S17R17	656223	2487418		S17L17	656141.8	2487418
87380	S17R18	656236.5	2487433		S17L18	656155.3	2487433
87400	S17R19	656250	2487447		S17L19	656168.8	2487447
87420	S17R20	656263.5	2487462		S17L20	656182.3	2487462
87440	S17R21	656277	2487477		S17L21	656195.8	2487477
87460	S17R22	656290.5	2487492		S17L22	656209.3	2487492
87480	S17R23	656304	2487506		S17L23	656222.8	2487506
87500	S17R24	656317.5	2487521		S17L24	656236.3	2487521
87520	S17R25	656331	2487536		S17L25	656249.8	2487536
87540	S17R26	656344.5	2487551		S17L26	656263.3	2487551
87560	S17R27	656358	2487565		S17L27	656276.8	2487566
87580	S17R28	656371.5	2487580		S17L28	656290.3	2487580

PROJECT DIRECTOR
PIU, Bilaspur (C.G.)

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87600	S17R29	656385	2487595		S17L29	656303.8	2487595
87620	S17R30	656397.5	2487610		S17L30	656317.3	2487610
87640	S17R31	656409.5	2487626		S17L31	656330.8	2487625
87660	S17R32	656421.5	2487642		S17L32	656344.3	2487639
87680	S17R33	656433.4	2487658		S17L33	656356.2	2487655
87700	S17R34	656445.4	2487674		S17L34	656368.2	2487671
87720	S17R35	656457.4	2487690		S17L35	656380.2	2487687
87740	S17R36	656469.3	2487707		S17L36	656392.2	2487703
87760	S17R37	656481.2	2487723		S17L37	656404.1	2487719
87780	S17R38	656493.1	2487739		S17L38	656416.1	2487735
87800	S17R39	656505.2	2487755		S17L39	656428	2487752
87820	S17R40	656517.4	2487770		S17L40	656439.9	2487768
87840	S17R41	656528.9	2487787		S17L41	656451.9	2487784
87860	S17R42	656538.7	2487804		S17L42	656464.1	2487799
87880	S17R43	656548.4	2487822		S17L43	656476.2	2487815
87900	S17R44	656558.2	2487839		S17L44	656486	2487833
87920	S17R45	656567.9	2487857		S17L45	656495.7	2487850
87940	S17R46	656577.6	2487874		S17L46	656505.4	2487868

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PROJECT DIRECTOR
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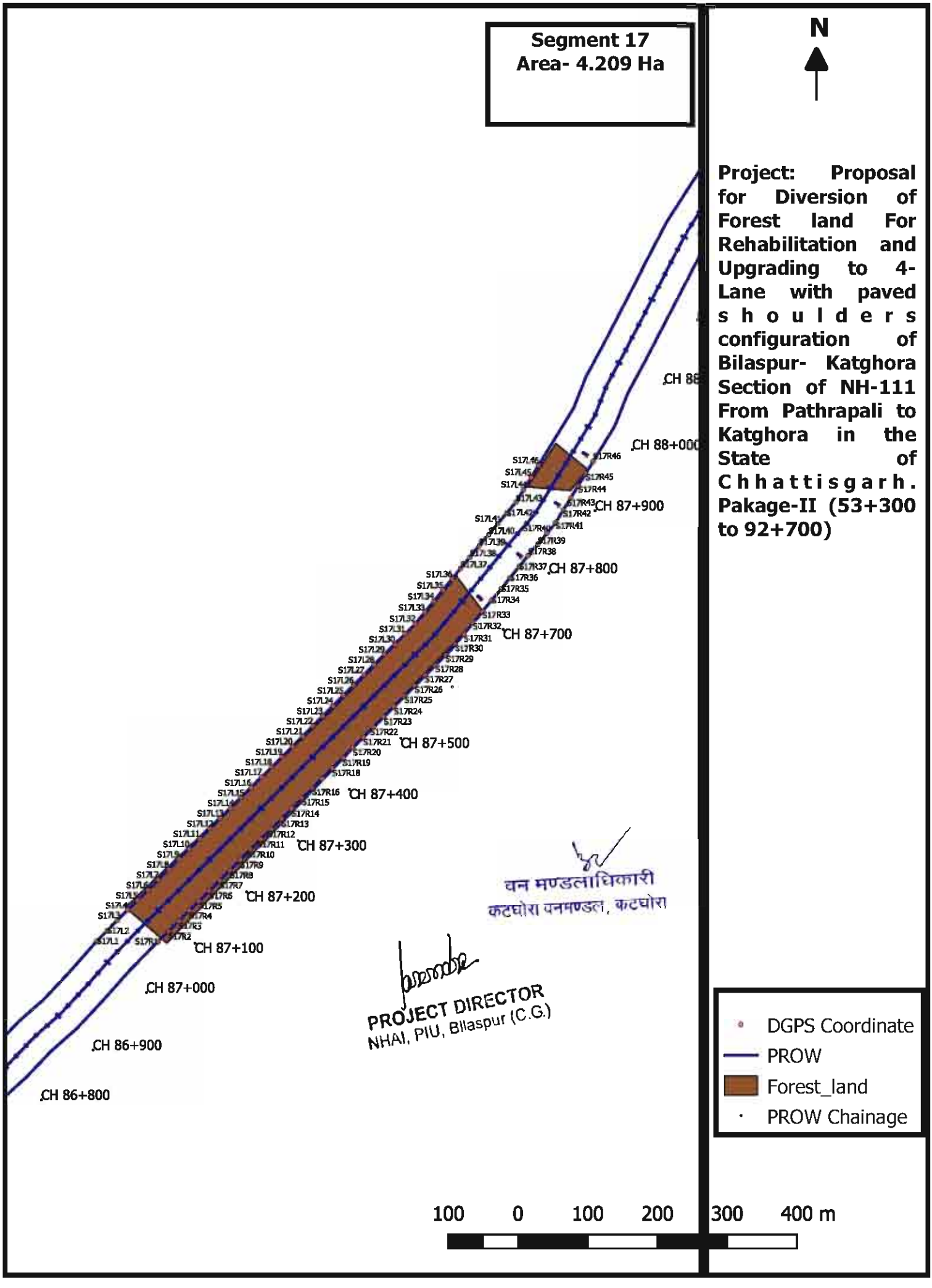
DGPS Map


Segment 17
Area- 4.209 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 88
CH 88+000
CH 87+900
CH 87+800
CH 87+700
CH 87+500
CH 87+400
CH 87+300
CH 87+200
CH 87+100
CH 87+000
CH 86+900
CH 86+800
वन मण्डलाधिकारी
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PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 18

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pondi Uprora	Katghora	Kapubahara	357/1k/1	0.75	Orange Forest
			212/1/k/1, 212/1/k/2	0.202	Revenue Forest
		Jurali	246	0.012	Revenue Forest
			606/1	0.415	Revenue Forest
			610/4	0.202	Revenue Forest
			Total	**1.581**	

Segment 18							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
88540	S18R1	656887.5	2488378		S18L1	656801.2	2488383
88560	S18R2	656902.8	2488391		S18L2	656816.4	2488396
88580	S18R3	656918	2488403		S18L3	656831.7	2488409
88600	S18R4	656933.3	2488416		S18L4	656847	2488422
88620	S18R5	656950.6	2488426		S18L5	656862.3	2488435
88640	S18R6	656968.6	2488435		S18L6	656877.5	2488448
88660	S18R7	656985.6	2488445		S18L7	656892.8	2488461
88680	S18R8	657000.9	2488458		S18L8	656908.6	2488473
88700	S18R9	657016.2	2488471		S18L9	656926.7	2488481
88720	S18R10	657031.5	2488484		S18L10	656944.7	2488490
88740	S18R11	657046.8	2488497		S18L11	656960.4	2488502
88760	S18R12	657062.1	2488510		S18L12	656975.7	2488515
88920	S18R13	657180.6	2488617		S18L13	657096.5	2488620
88940	S18R14	657193.9	2488632		S18L14	657111.1	2488634
88960	S18R15	657206.7	2488647		S18L15	657125.6	2488647
88980	S18R16	657219.5	2488663		S18L16	657140.1	2488661
89000	S18R17	657231.4	2488679		S18L17	657153	2488676
89020	S18R18	657242.8	2488695		S18L18	657165.8	2488692
89040	S18R19	657254.1	2488712		S18L19	657178.3	2488707
89060	S18R20	657265.5	2488728		S18L20	657189.7	2488724
89080	S18R21	657276.9	2488744		S18L21	657201.1	2488740
89100	S18R22	657288.3	2488761		S18L22	657212.5	2488757
89120	S18R23	657299.6	2488777		S18L23	657223.8	2488773
89140	S18R24	657311	2488794		S18L24	657235.2	2488790
90440	S18R25	658029	2489870		S18L25	657958.2	2489863
90460	S18R26	658038.1	2489888		S18L26	657967.2	2489881
90480	S18R27	658047.1	2489906		S18L27	657976.3	2489899

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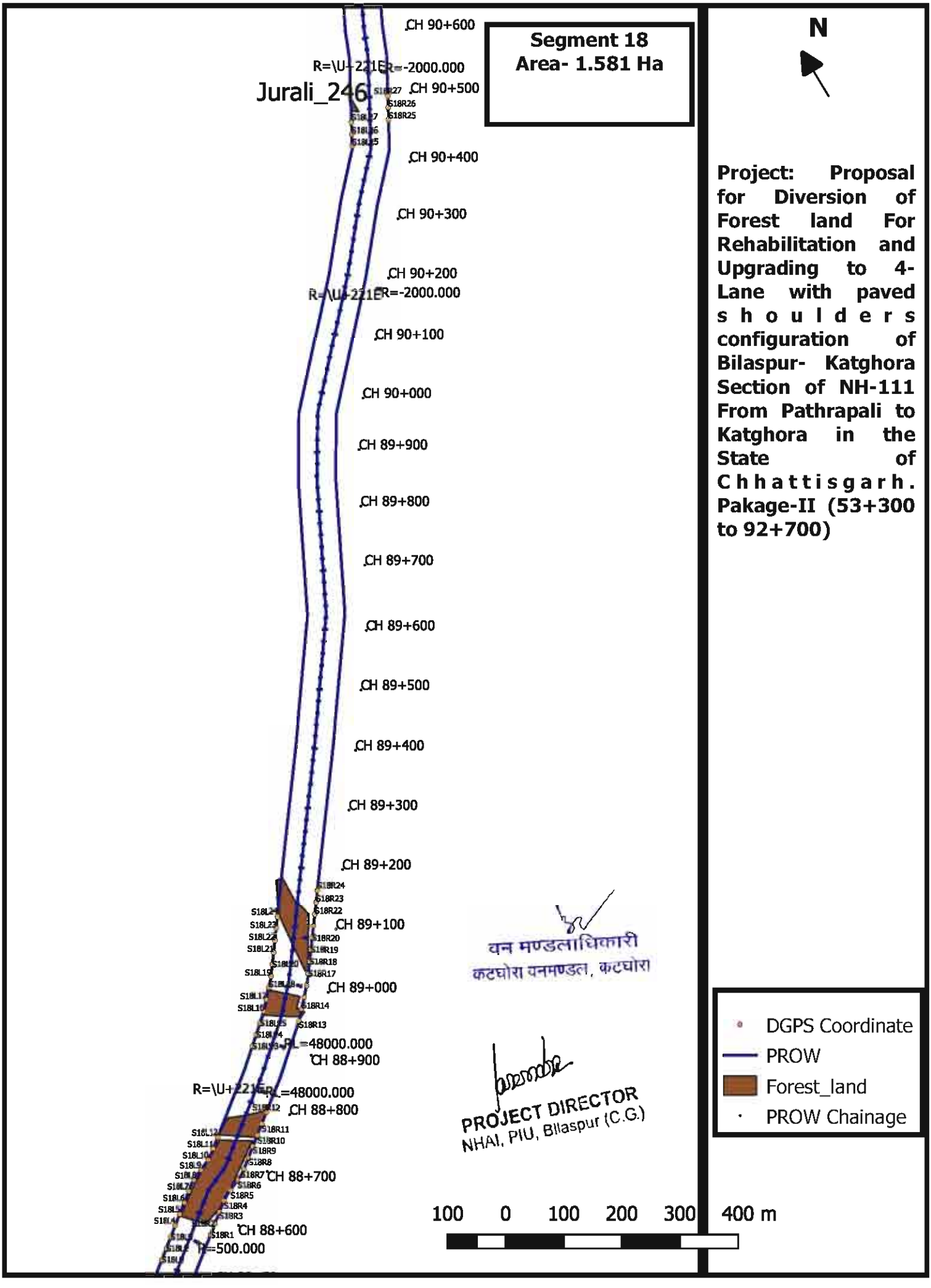
DGPS Map


Segment 18
Area- 1.581 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
CH 90+600
R=\U+221ER=-2000.000
Jurali_246
CH 90+500
CH 90+400
CH 90+300
CH 90+200
R=\U+221ER=-2000.000
CH 90+100
CH 90+000
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CH 89+000
R=\U+221ER=48000.000
CH 88+900
R=\U+221ER=48000.000
CH 88+800
CH 88+700
CH 88+600
R=500.000
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PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m

Segment 19

District /Tehsil	Forest Division	Village	Khasra No.	Area (In Ha.)	Types of Forest
Korba/ Pondi Uprora	Katghora	Amakhokhara	248/1 ch	1.684	Orange Forest
			Total	1.684	

Segment 19							
PROW Chainage	Pillar ID	Right			Pillar ID	Left	
		X	Y			X	Y
92080	S19R1	658841.2	2491289		S19L1	658766.3	2491284
92100	S19R2	658852.4	2491306		S19L2	658777.2	2491301
92120	S19R3	658863.7	2491322		S19L3	658788.2	2491318
92140	S19R4	658875.1	2491338		S19L4	658799.4	2491334
92160	S19R5	658886.6	2491355		S19L5	658810.7	2491351
92180	S19R6	658898.1	2491371		S19L6	658822.1	2491367
92200	S19R7	658909.5	2491388		S19L7	658833.5	2491384
92220	S19R8	658918.1	2491406		S19L8	658845	2491400
92240	S19R9	658926.8	2491424		S19L9	658856.6	2491416
92260	S19R10	658935.5	2491442		S19L10	658865.4	2491434
92280	S19R11	658944.2	2491460		S19L11	658874	2491452
92300	S19R12	658952.9	2491478		S19L12	658882.7	2491470
92320	S19R13	658958.2	2491497		S19L13	658891.4	2491488
92340	S19R14	658963.3	2491516		S19L14	658898.8	2491507
92360	S19R15	658968.3	2491536		S19L15	658903.8	2491526
92380	S19R16	658973.3	2491555		S19L16	658908.9	2491546
92400	S19R17	658978.4	2491574		S19L17	658913.9	2491565

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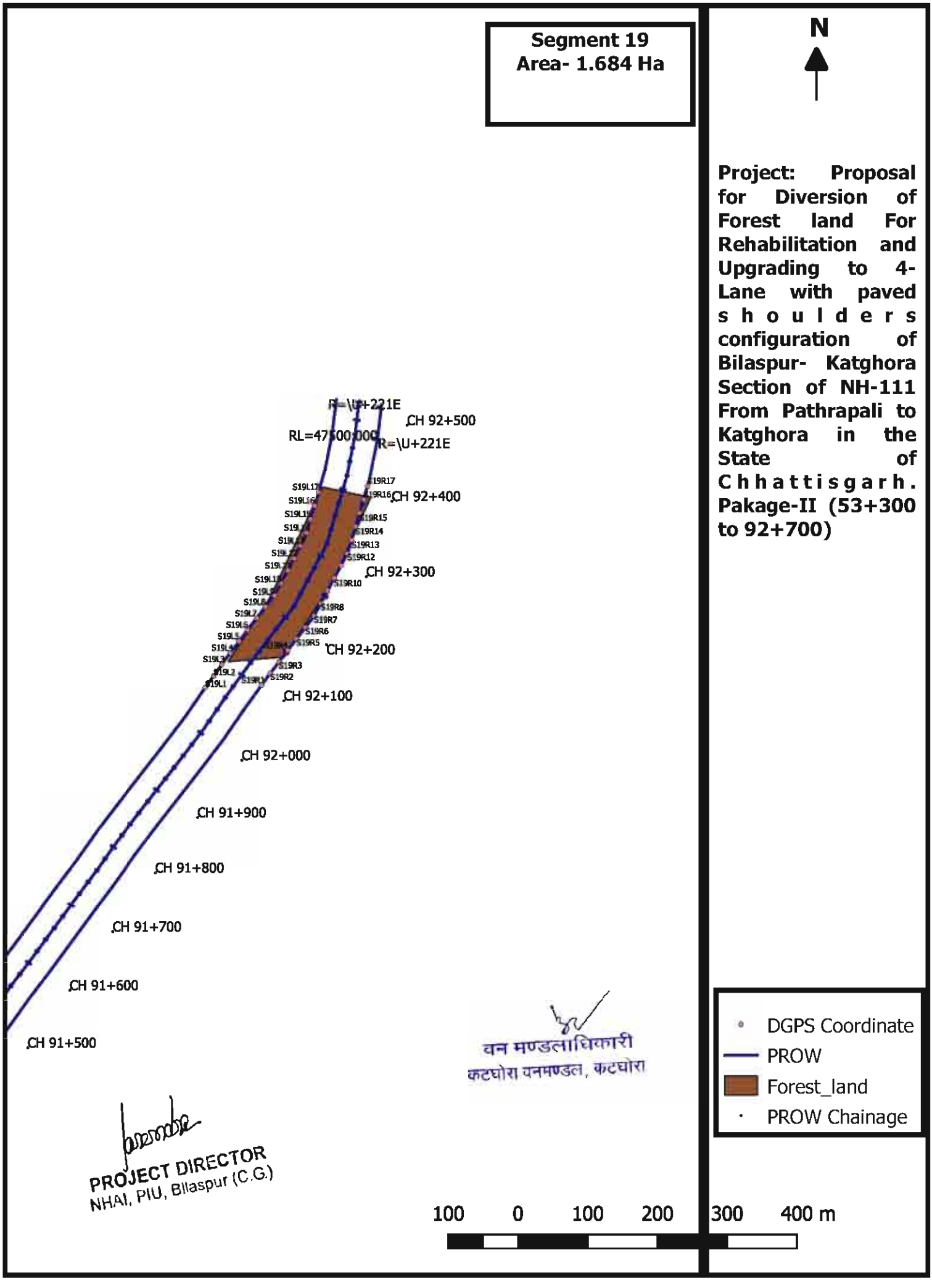
DGPS Map


Segment 19
Area- 1.684 Ha
N
Project: Proposal for Diversion of Forest land For Rehabilitation and Upgrading to 4-Lane with paved shoulders configuration of Bilaspur- Katghora Section of NH-111 From Pathrapali to Katghora in the State of Chhattisgarh. Pakage-II (53+300 to 92+700)
R=\U+221E
CH 92+500
RL=47500.000
R=\U+221E
CH 92+400
CH 92+300
CH 92+200
CH 92+100
CH 92+000
CH 91+900
CH 91+800
CH 91+700
CH 91+600
CH 91+500
DGPS Coordinate
PROW
Forest_land
PROW Chainage
100 0 100 200 300 400 m
PROJECT DIRECTOR
NHAI, PIU, Bilaspur (C.G.)
वन मण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा