

**LiDAR / DGPS Survey report for Forest Diversion of  
proposed OFC Cable routes in Balod Forest Division with  
Route Length 197.560 Km.**

APPLICATION SUBMITTED BY:

**Jio Digital Fibre Private Ltd.**



LIDAR / DGPS SURVEY AND GIS MAPPING DONE BY:

**Genesys International Corporation Limited  
Mumbai, Maharashtra**



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# 1 Introduction and Background

## 1.1 Background

This is with reference to the Order of Hon'ble National Company Law Tribunal (NCLT) Ahmedabad Bench dated; 20th March 2019 in CP (CAA) No. 13/NCLT/AHM/2019 IN, CP (CAA) No.10/NCLT/AHM/2019. As per the Order, with effect from the close of business hours of 31st March 2019 (Effective Date), M/s Reliance Jio demerged the Optic Fibre Undertaking to "Jio Digital Fibre Private Limited".

Jio Digital Fibre Private Limited is registered with Department of Telecommunication (DOT) is as infrastructure Provider Category-I (IP-I) vide Registration Certificate No. 935/2019 dated; 06th March 2019, having its Registered Office: Office No. 101, Saffron, Nr. Centre Point, Panchwati 5 Rasta, Ambawadi, Ahmedabad-380006 Gujarat, India to establish and maintain the assets such as Dark Fibres, Right of Way, Duct space and Tower.

We are planning to lay Optical Fibre Cable (OFC) through duct, adopting methodologies like HDD, Open Trench, Micro Trench, Clamping and other methods conducive on ground. The above chain age falls under your jurisdiction, as such we seek your cooperation to construct a fibre optic backbone link. Rest assured that the work will be carried out as per standards, guidelines and policies of the authority for laying the OFC, we are also earmarking on SLD-the provisioning of road bridges likely and would appreciate specific instructions wherever applicable.

In order to provide world class 4G telecom services to the remotest part of the Chhattisgarh State, Reliance Jio Digital Fiber Pvt. Ltd is investing in the telecom infrastructure. This includes installation of mobile towers and laying Optical Fibre Cables (OFC). These OFCs are being laid to fulfill dream of our Chairman to provide affordable broadband connectivity to the last user at the bottom of social pyramid. Primary objective is to ensure the mobile connectivity is extended to 95% of population and 90% of geography in the state before year 2022.

This Optical Fibre Cable system will fulfill the needs of Telecommunication circuits and Wireless Broadband Services and Other Data for the Government, Industries, Defense and Society. This telecom Infrastructure shall lead to growth in economy and hence more employment and better living conditions of the geography/state/country.

This scheme of laying OFC is most modern and state of art Technology in the field of Digital Telecommunication. Moreover, the same cable will provide most of new value-added services as well as it will cater for the needs of integrated services digital network.

## 1.2 Proposed Routes

Following image (Fig-1) shows the proposed routes in Balod Division

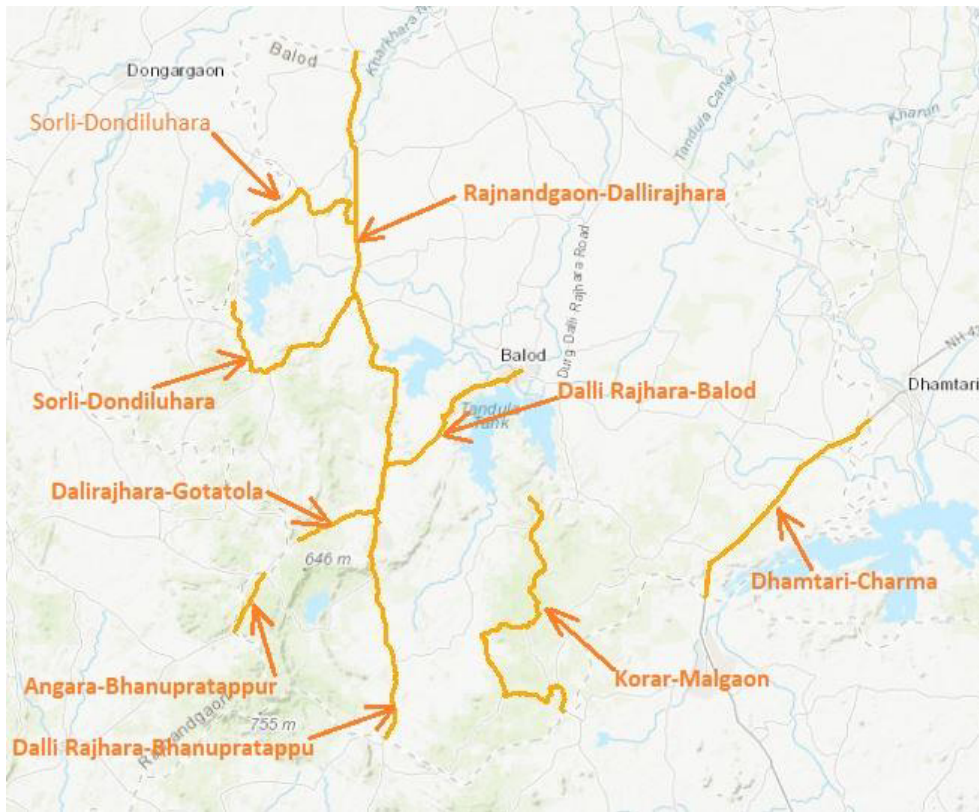


Fig-1: OFC Cable Proposed Routes on Online Map in Balod Division.



### 1.3 Work Location

The proposed OFC Cable route in Balod Forest Division (Tehsils covered along the route are: Dondi Luhara District: Balod. The Division length is approx. 197.560 km. The survey site passes through forest ranges – Lohara, Dalli, Khadgaon, Balod, Gurur of Balod forest division. The OFC Cable route is covered under Survey of India Toposheets 64C16, 64D13, 64D14, 64D15, 64G4, 64G8, 64G12, 64H1, 64H2, 64H3, 64H5, 64H6, 64H7, 64H10, 64H11, on RF 1:50000.

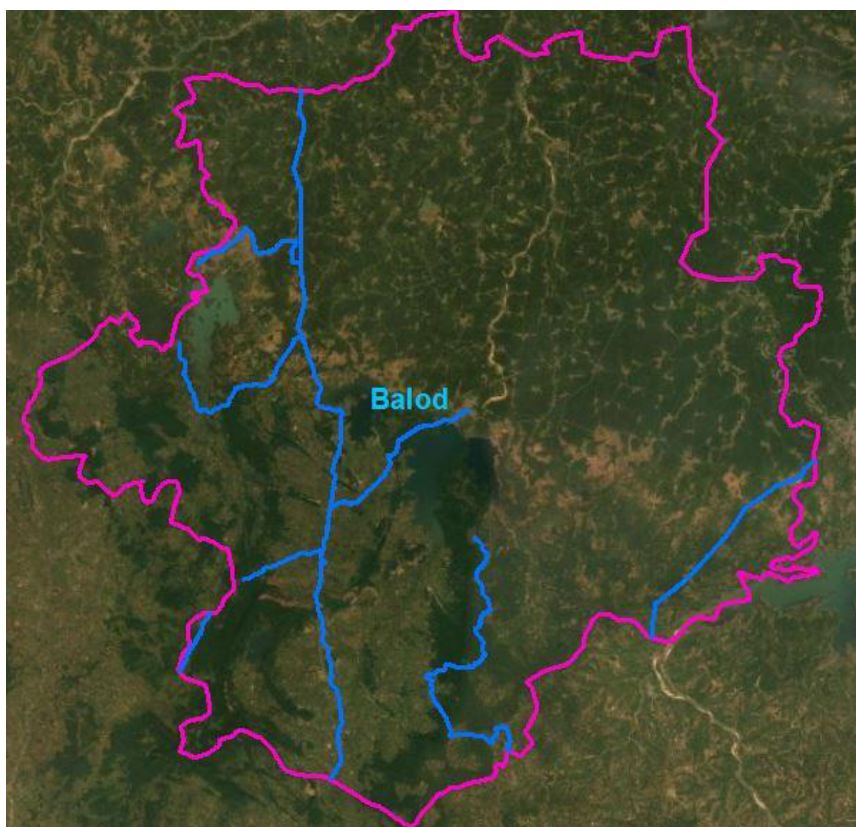


Fig-2: OFC Cable Proposed Routes on Satellite Imagery in Balod Division.

#### **1.4 Objective**

As per directives of Ministry of Environment & Forests (MoEF) dated 8th July 2011; all applications for Forest Diversion, under Forest Conservation Act, 1980 must be accompanied with Geo-referenced shape file, showing the boundary of the proposed area (both soft copy and hard copy maps), prepared using Differential GPS (DGPS) and the same should be uploaded to MoEF website along with the online application.

To meet this requirement, Jio Digital Fibre Private Limited entrusted the DGPS survey work to M/s Genesys International Corporation Ltd., Mumbai, through Mobile LiDAR Technology.

## 2 Scope of Work

1. Establishment of one base station with 72 Hours observation and secondary control points at every 10km along the proposed route.
2. DGPS Survey for collection of ground coordinates along the OFC Cable trench at every 50m interval and/or at every turn/bend along the proposed trench. The DGPS data is collected at forest patches only.
3. Data processing and Interpretation
  - a. Geo-referencing of SOI Toposheet (1:50000), Forest Stock map (1:15000, if available) and satellite imagery
  - b. Creation of OFC Cable trench boundary vector map using the DGPS Surveyed data
  - c. Superimposition of cable route layer on Geo-referenced forest maps, SOI Toposheet and Satellite imagery.
  - d. Computation of Forest area proposed for diversion. It includes Reserved/Protected Forest & Revenue Forest.
  - e. Preparation of Geo-referenced forest map at 1:15000 scale, and SOI Toposheet at 1:50000 scale.
  - f. Preparation of DGPS survey report along with soft copy of maps in shapefile format and kml file
4. Printing of report and Geo-referenced maps and Technical compliance.

### 3 Deliverables

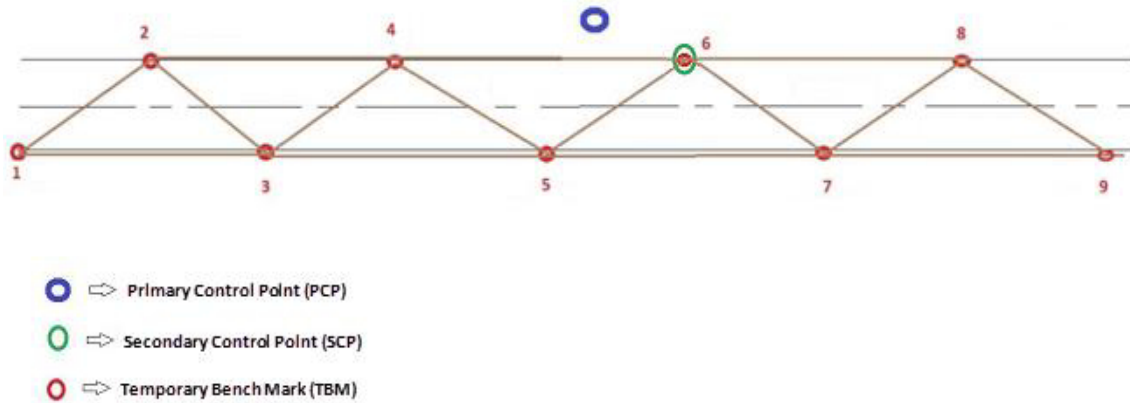
The deliverables envisaged for the assignment are described below

1. Post processed DGPS observations data as well as raw data in RINEX format.
2. DGPS Reports - Base line & network adjustment report for the primary and Secondary Control Points.
3. Geo-referenced SOI maps & forest block maps based on DGPS observations – Hard and Soft Copy (SHP and KML formats).
4. Proposed Forest Diversion area statement as per DGPS Survey
5. DGPS Survey and mapping report

## 4 Technical Approach (Brief Description)

### 4.1 GCP Establishment for LiDAR (DGPS) Survey:

Example of defined Triangular Network GCP method.



**Primary Control Point:** 72 Hours of DGPS observation for Post Processing the PCP data with IGS stations.

**Secondary Control Point:** 2 - 4 Hours of DGPS observation for Post Processing the SCP data with PCP Data.

**Temporary Bench Mark:** 1 Hour of DGPS observation for improving the spatial accuracy of the LiDAR point cloud data.

## 4.2 Mobile LiDAR (DGPS) data collection:

DGPS based Mobile LiDAR data was collected along with 360 degree panoramic view of the OFC route corridor (25 meter on each side along the center of the road).



*Mobile LiDAR Van*

## 4.3 DRS / GIS Map Creation Using LiDAR data:

All the features along the route are captured using LiDAR data and Panoramic Imagery to create the DRS / GIS Map.



Feature Extraction on LiDAR

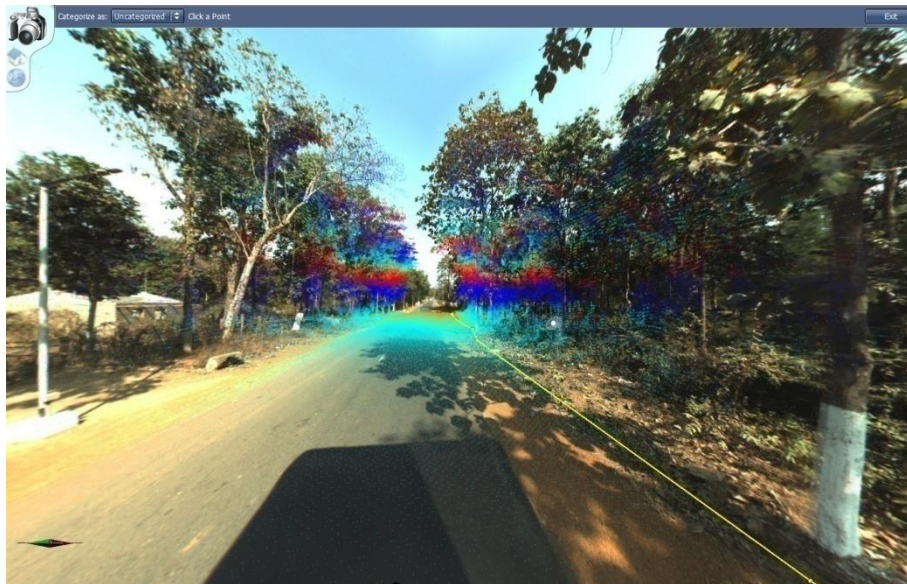




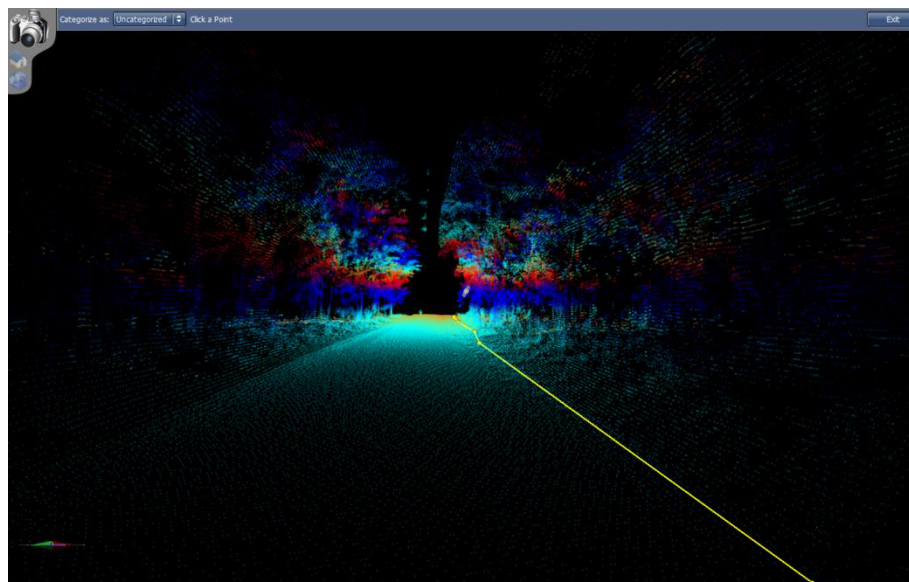
Final DRS / GIS Map

#### **4.4 Demarcation of Proposed OFC on LiDAR data:**

Proposed OFC line is demarcated based on the feasibility of trenching to be done on ground by referring the LiDAR data with the Panoramic imagery.



Proposed OFC Line on LiDAR Data (with Panoramic Imagery)

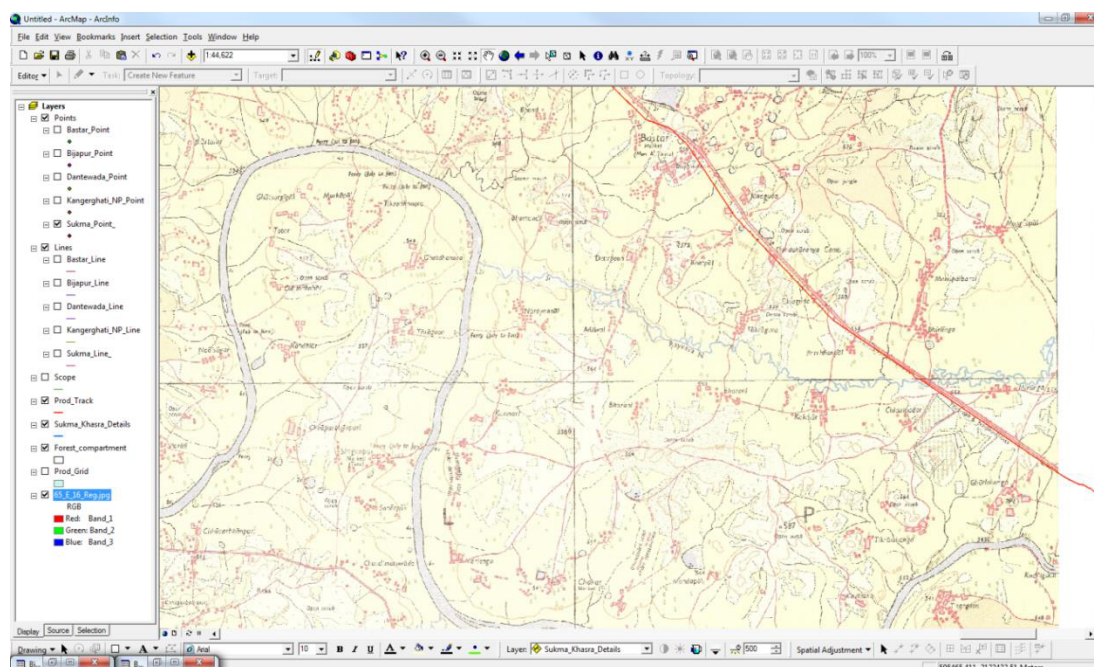


Proposed OFC Line on LiDAR Data only

#### **4.5 Geo-referencing of Maps:**

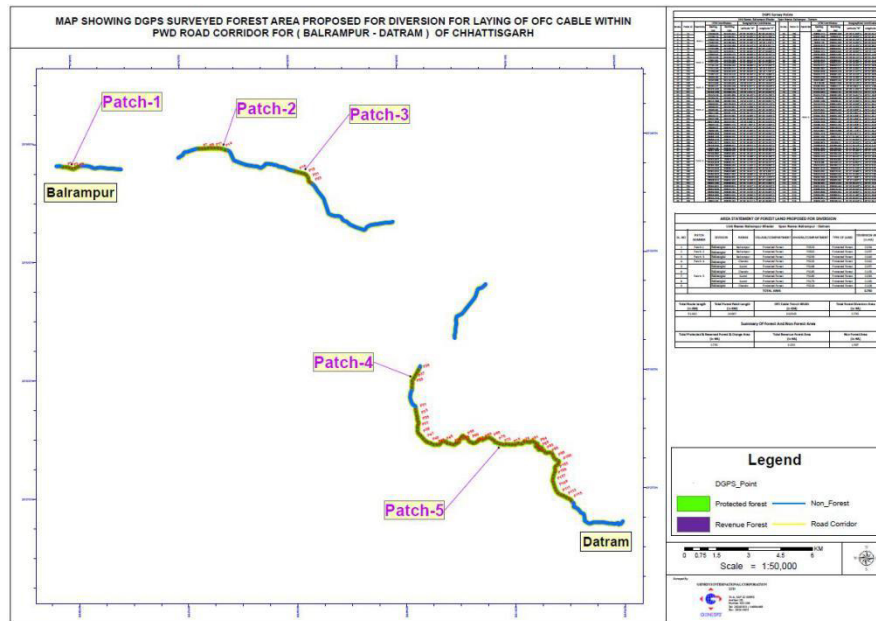
Geo-referencing of Revenue Village Maps, SOI Toposheets and Forest Maps are to be done. SOI Toposheets and Forest Maps would be geo-referenced based on the coordinates provided on the maps whereas Revenue Village Maps would be geo-referenced with the help of GCPs collected (at least 5 GCPs for a village having Government Forest Land are to be collected)





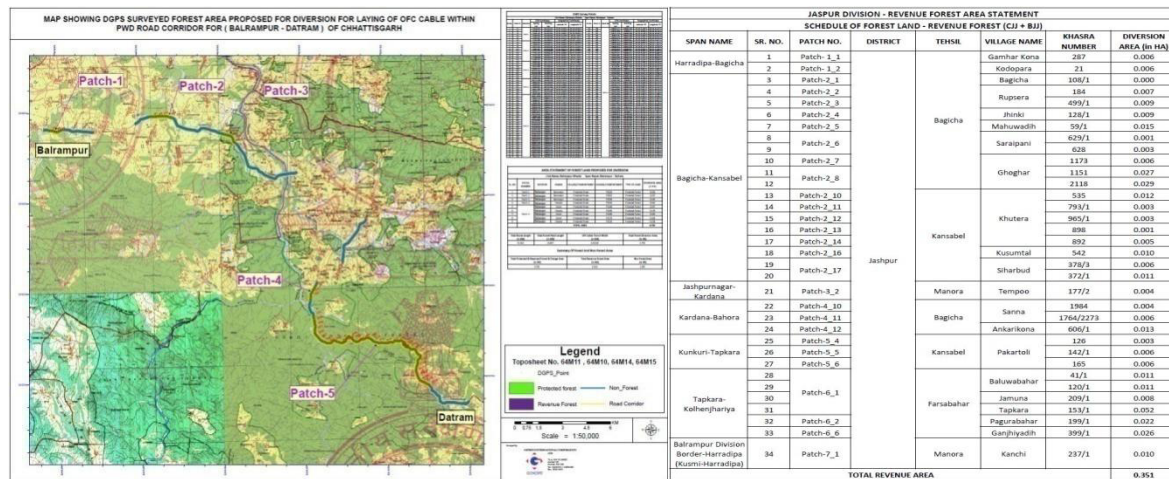
#### **4.6 Creation of Vector Data for Forest Diversion:**

Different Layers such as Polygon of Reserved/Protected Forest Patch, Centerline of Forest Trench, Non-Forest Trench line, Polygons showing Revenue Forest patches etc. are to be created using the Geo-referenced maps and the provided information by the forest department.



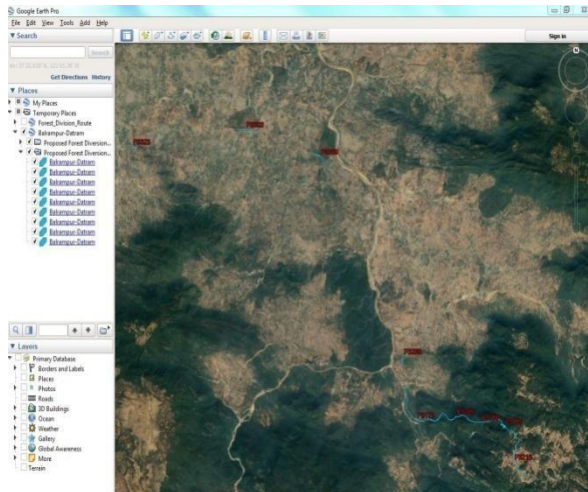
#### 4.7 Generation of Map and Survey Reports for Forest Diversion:

A map is created by overlaying the created vector data for the forest patches on the Geo-referenced SOI Toposheets / Forest Maps. The reports are generated for DGPS Points (with Lat/long) placed at the regular intervals of 150m on the proposed OFC route in the forest area. Another report is generated having area calculation for the proposed trench area in different type of Forest Lands. Samples of these are as below.



Geo-referenced Map

Forest Area Statement 1



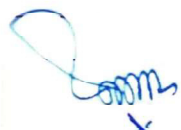
KML File

DGPS Survey Points						
Jaspur Division						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
1	P1	Patch-1_1	784783.839	2563180.832	23° 9' 10.952" N	83° 46' 52.558" E
2	P2		784722.029	2563192.387	23° 9' 11.365" N	83° 46' 50.394" E
3	P3		784660.394	2563204.822	23° 9' 11.808" N	83° 46' 48.238" E
4	P4	Patch-1_2	782507.989	2563583.485	23° 9' 25.437" N	83° 45' 32.882" E
5	P5		782478.669	2563629.794	23° 9' 26.959" N	83° 45' 31.883" E
6	P6		782491.242	2563685.341	23° 9' 28.756" N	83° 45' 32.362" E
7	P7	Patch-1_3	782630.138	2564413.352	23° 9' 52.317" N	83° 45' 37.726" E
8	P8		782557.468	2564333.241	23° 9' 49.760" N	83° 45' 35.120" E
9	P9		782535.966	2564208.425	23° 9' 45.719" N	83° 45' 34.281" E
10	P10	Patch-1_4	781883.634	2562868.611	23° 9' 2.600" N	83° 45' 10.475" E
11	P11		781890.026	2562718.86	23° 8' 57.732" N	83° 45' 10.600" E
12	P12		781837.512	2562582.486	23° 8' 53.335" N	83° 45' 8.665" E
13	P13		781763.554	2562452.425	23° 8' 49.156" N	83° 45' 5.981" E
14	P14	Patch-1_5	781727.130	2562313.878	23° 8' 44.678" N	83° 45' 4.610" E
15	P15		781188.989	2558613.043	23° 6' 44.796" N	83° 44' 43.259" E
16	P16		781104.435	2558489.422	23° 6' 40.832" N	83° 44' 40.208" E
17	P17		781017.132	2558371.435	23° 6' 37.053" N	83° 44' 37.064" E
18	P18	Patch-1_6	780907.049	2558354.302	23° 6' 36.563" N	83° 44' 33.187" E
19	P19		780797.983	2558329.207	23° 6' 35.815" N	83° 44' 29.340" E
20	P20	Patch-1_6	778219.961	2556965.349	23° 5' 53.079" N	83° 42' 57.917" E
21	P21		778162.061	2556872.654	23° 5' 50.103" N	83° 42' 55.823" E
22	P22		778162.947	2556730.58	23° 5' 45.487" N	83° 42' 55.761" E
23	P23		778039.634	2556651.849	23° 5' 43.004" N	83° 42' 51.380" E
24	P24		777949.518	2556753.241	23° 5' 46.352" N	83° 42' 48.282" E
25	P25		777923.998	2556881.309	23° 5' 50.853" N	83° 42' 47.476" E
26	P26		777939.120	2557033.764	23° 5' 55.471" N	83° 42' 48.100" E
27	P27		777908.466	2557162.044	23° 5' 59.656" N	83° 42' 47.107" E
28	P28		777841.380	2557160.129	23° 5' 55.768" N	83° 42' 44.750" E
29	P29		777752.756	2557039.44	23° 5' 55.768" N	83° 42' 41.560" E
30	P30	Patch-1_7	777619.912	2557049.039	23° 5' 56.160" N	83° 42' 36.901" E
31	P31		777500.348	2557064.94	23° 5' 56.748" N	83° 42' 32.713" E
32	P32		777395.609	2556958.254	23° 5' 53.346" N	83° 42' 28.966" E
33	P33		777274.137	2556870.293	23° 5' 50.562" N	83° 42' 24.643" E
34	P34		777137.431	2556856.404	23° 5' 50.193" N	83° 42' 19.834" E
35	P35		776999.421	2556840.498	23° 5' 49.760" N	83° 42' 14.977" E
36	P36		776850.026	2556844.931	23° 5' 49.993" N	83° 42' 9.734" E
37	P37		776703.962	2556864.579	23° 5' 50.720" N	83° 42' 4.618" E
38	P38		776534.722	2556748.684	23° 5' 47.057" N	83° 41' 58.600" E
39	P39		776534.722	2556748.684	23° 5' 47.057" N	83° 41' 58.600" E
40	P40	Patch-1_7	774503.119	2556428.672	23° 5' 37.877" N	83° 40' 47.055" E
41	P41		774407.058	2556398.070	23° 5' 36.941" N	83° 40' 43.662" E
42	P42		774283.498	2556372.210	23° 5' 36.174" N	83° 40' 39.307" E

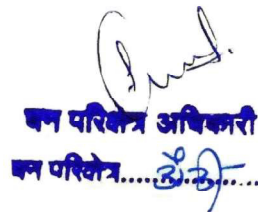
DGPS Survey Point Details



SCHEDULE OF FOREST LAND - RESERVE & PROTECTED FOREST										
BALOD DIVISION - FOREST AREA STATEMENT										
SPAN NAME	SR. NO.	PATCH NUMBER	DIVISION	RANGE	VILLAGE NAME	COMPARTMENT	TYPE OF LAND	DIVERSION AREA (in HA)	LENGTH (KM)	
Sorli-Dondiluhara	1	Patch-1_1	Balod	Lohara	Sanjali	201	Reserved Forest	0.050	1.000	
	2	Patch-1_4			Matri	P307	Protected Forest	0.021	0.420	
	3	Patch-1_5			Raigarh	191	Reserved Forest	0.048	0.960	
	4	Patch-1_6				192		0.019	0.380	
	5	Patch-1_6				193		0.053	1.060	
	6	Patch-1_6 & Patch-1_7			Bhejra Pathar	194		0.143	2.860	
	7	Patch-1_7			Gurami	173		0.034	0.680	
Dalirajhara-Gotatola	8	Patch-2_2		Dalli	Jhikatola	180	Protected Forest	0.022	0.440	
	9	Patch_2_4		Khadgaon	Hitkasa	170		0.063	1.260	
Dalli Rajhara-Balod	10	Patch-3_1		Balod	Bangaon	P257		Reserved Forest	0.035	0.700
	11				Borid	92			0.065	1.300
	12				Daihan	96			0.138	2.760
	13				Rani Tarai	99	0.125		2.500	
Dalli Rajhara - Bhanupratappur	14	Patch-4_1		Dalli	Gotulmunda	144	0.035		0.700	
Dhamtari-Charma	15	Patch-5_1		Gurur	Jagtara	3	Reserved Forest	0.292	5.840	
	16	Patch-5_1			Naikura	16		0.060	1.200	
	17	Patch-5_1 & Patch-5_2			Karrajhar	20		0.248	4.960	
	18	Patch-5_2			Mujalgondi	19		0.033	0.660	
Korar-Malgaon	19	Patch-6_1		Balod	Malgaon	P251		Protected Forest	0.052	1.040
	20	Patch-6_2		Dalli	Amabahara F.V.	77	Reserved Forest	0.031	0.620	
	21					79		0.084	1.680	
	22					56		0.036	0.720	
	23					82		0.095	1.900	
	24				Singhola	83		0.081	1.620	
	25					85		0.08	1.600	
	26	Putarwahi		86	0.180	3.600				
	27			118	0.009	0.180				
	28			110	0.063	1.260				
	29			122	0.121	2.420				
	30	Dondi		Dhorritema	P267	Protected Forest	0.082	1.640		
	Patch-6_4			Chiharo	123	Reserved Forest	0.062	1.240		
					124		0.060	1.200		
	31				Amadula	P263	Protected Forest	0.044	0.880	
Angara-Bhanupratappur	34	Patch-7_1, Patch-7_2 & Patch-7_3			Sherpar	164	Reserve Forest	0.035	0.700	
	35	Patch-7_3			Angara	163		0.049	0.980	
Rajnandgaon-Dallirajhara	36	Patch-8_5		Lohara	Jatadah	172	Reserved Forest	0.046	0.920	
	37	Patch-8_6				176		0.005	0.100	
	38	Patch-8_7			Bakali Tola	177		0.022	0.440	
	39	Patch-8_9		Dalli	Gidhali	291		0.010	0.200	
TOTAL FOREST AREA								2.731	54.620	



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वन परिक्षेत्र.....इल्ली



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वन परिक्षेत्र.....इल्ली





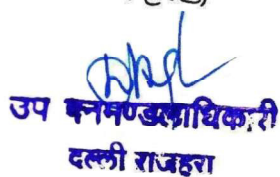
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वन परिक्षेत्र.....लोहाटा



वन परिक्षेत्र अधिकारी  
वन परिक्षेत्र.....बालोद



वन परिक्षेत्र अधिकारी  
वन परिक्षेत्र.....उरु



उप वनमण्डलाधिकारी  
दल्ली राजहरा



उप वनमण्डलाधिकारी  
बालोद



Divisional Forest Officer  
Balod Division, Balod

SCHEDULE OF FOREST LAND - REVENUE FOREST (CJJ + BJJ)											
BALOD DIVISION - REVENUE FOREST AREA STATEMENT											
SPAN NAME	SR. NO.	PATCH NUMBER	DISTRICT	TEHSIL	VILLAGE NAME	KHASRA NUMBER	TYPE OF LAND	DIVERSION AREA (in HA)	LENGTH (KM)		
Sorli-Dondiluhara	1	Patch-1_2	Balod	Dondi Luhara	Madwa Pathra	562	Revenue Forest	0.002	0.040		
	2	Patch-1_3				553		0.004	0.080		
	3	Patch-1_7			Gurami	43/403		0.007	0.140		
Dalirajhara-Gotatola	4	Patch-2_1			Bital	184		0.055	1.100		
	5	Patch-2_3			Hitkasa	143		0.004	0.080		
Dalli Rajhara - Bhanupratappur	6	Patch-4_2		Dondi	Gotulmunda	82/1		0.019	0.380		
	7	Patch-4_3				68/1		0.004	0.080		
	8	Patch-4_4			Malkunwar	263/1		0.003	0.060		
	9	Patch-4_5			Narratola	411/1		0.005	0.100		
	10	Patch-4_6			Khairwahi	348		0.013	0.260		
	11	Patch-4_7			Auratola	74/1		0.025	0.500		
	12	Patch-4_8			Awari	198/1		0.007	0.140		
Rajnandgaon-Dallirajhara	13	Patch-8_1		Dondi Luhara	Siwani	10		0.003	0.060		
	14	Patch-8_2				338		0.003	0.060		
	15					607		0.006	0.120		
	16	Patch-8_3				617		0.001	0.020		
	17	Patch-8_4			Jatadah	57		0.002	0.040		
	18	Patch-8_8		Dondi	Gidhali	117		0.001	0.020		
	TOTAL REVENUE AREA								0.164	3.280	
Total Route Length (in KM)		Total Forest Patch Length (in KM)		OFC Cable Trench Width (in KM)		Total Forest Diversion Area (in HA)					
197.560		57.900		0.0005		2.895					
Summary Of Forest And Non Forest Area											
Protected Forest, Reserved Forest & Orange Area (in HA)				Revenue Forest Area (in HA)			Non Forest Area (in HA)				
2.731				0.164			6.983				

वन परिक्षेत्र अधिकारी

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वन परिक्षेत्र अधिकारी

वन परिक्षेत्र... डंडी



वन परिक्षेत्र अधिकारी

वन परिक्षेत्र... लोहाटा

वन परिक्षेत्र अधिकारी

वन परिक्षेत्र... बालोद

वन परिक्षेत्र अधिकारी

वन परिक्षेत्र... डुल्लू

उप कमिश्नर अधिकारी

दल्ली राजहरा

उप कमिश्नर अधिकारी

बालोद

Divisional Forest Officer  
Balod Division, Balod

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
1	P1	Patch-1_1	499013.2169	2307202.282	20° 51' 53.848" N	80° 59' 25.849" E
2	P2		498890.2154	2307116.432	20° 51' 51.055" N	80° 59' 21.593" E
3	P3		498767.1917	2307030.666	20° 51' 48.265" N	80° 59' 17.335" E
4	P4		498653.3838	2306932.973	20° 51' 45.087" N	80° 59' 13.397" E
5	P5		498540.2157	2306834.521	20° 51' 41.884" N	80° 59' 9.481" E
6	P6		498411.0505	2306762.764	20° 51' 39.549" N	80° 59' 5.011" E
7	P7		498291.2373	2306722.682	20° 51' 38.245" N	80° 59' 0.865" E
8	P8		498170.5965	2306695.44	20° 51' 37.358" N	80° 58' 56.690" E
9	P9	Patch-1_2	497238.5807	2306411.11	20° 51' 28.105" N	80° 58' 24.437" E
10	P10		497202.5292	2306378.041	20° 51' 27.029" N	80° 58' 23.190" E
11	P11	Patch-1_3	497191.805	2306368.176	20° 51' 26.708" N	80° 58' 22.819" E
12	P12		497161.1889	2306339.84	20° 51' 25.786" N	80° 58' 21.759" E
13	P13		497129.9954	2306312.148	20° 51' 24.886" N	80° 58' 20.680" E
14	P14	Patch-1_4	497421.5417	2291805.079	20° 43' 32.985" N	80° 58' 30.846" E
15	P15		497518.8643	2291916.164	20° 43' 36.599" N	80° 58' 34.211" E
16	P16		497650.7686	2291987.878	20° 43' 38.932" N	80° 58' 38.771" E
17	P17		497765.4069	2292046.237	20° 43' 40.831" N	80° 58' 42.735" E
18	P18	Patch-1_5	498162.6361	2292202.372	20° 43' 45.912" N	80° 58' 56.469" E
19	P19		498272.2027	2292303.184	20° 43' 49.191" N	80° 59' 0.257" E
20	P20		498394.4607	2292381.966	20° 43' 51.755" N	80° 59' 4.484" E
21	P21		498558.1029	2292385.042	20° 43' 51.855" N	80° 59' 10.143" E
22	P22		498708.5735	2292385.509	20° 43' 51.871" N	80° 59' 15.346" E
23	P23		498817.8706	2292390.772	20° 43' 52.042" N	80° 59' 19.125" E
24	P24		498904.3709	2292470.504	20° 43' 54.636" N	80° 59' 22.116" E
25	P25		498939.469	2292580.334	20° 43' 58.209" N	80° 59' 23.329" E
26	P26	Patch-1_6	499095.7889	2292991.206	20° 44' 11.574" N	80° 59' 28.733" E
27	P27		499169.6958	2293118.545	20° 44' 15.717" N	80° 59' 31.289" E
28	P28		499245.684	2293250.957	20° 44' 20.024" N	80° 59' 33.916" E
29	P29		499320.7362	2293380.799	20° 44' 24.248" N	80° 59' 36.511" E
30	P30		499392.5681	2293512.428	20° 44' 28.530" N	80° 59' 38.995" E
31	P31		499460.4933	2293646.1	20° 44' 32.878" N	80° 59' 41.344" E
32	P32		499527.616	2293780.242	20° 44' 37.242" N	80° 59' 43.665" E
33	P33		499593.9609	2293914.768	20° 44' 41.618" N	80° 59' 45.959" E
34	P34		499697.0356	2294000.599	20° 44' 44.410" N	80° 59' 49.523" E
35	P35		499845.0962	2294024.473	20° 44' 45.187" N	80° 59' 54.643" E
36	P36		499985.8663	2294062.232	20° 44' 46.415" N	80° 59' 59.511" E
37	P37		500127.8614	2294088.82	20° 44' 47.280" N	81° 0' 4.422" E
38	P38		500270.6108	2294136.854	20° 44' 48.842" N	81° 0' 9.358" E
39	P39		500413.2691	2294186.135	20° 44' 50.445" N	81° 0' 14.291" E
40	P40		500553.823	2294237.715	20° 44' 52.123" N	81° 0' 19.152" E

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
41	P41	Patch-1_6	500696.0015	2294280.688	20° 44' 53.521" N	81° 0' 24.069" E
42	P42		500843.2172	2294280.994	20° 44' 53.530" N	81° 0' 29.160" E
43	P43		500991.9042	2294266.548	20° 44' 53.060" N	81° 0' 34.301" E
44	P44		501141.1106	2294252.422	20° 44' 52.600" N	81° 0' 39.461" E
45	P45		501293.6062	2294274.835	20° 44' 53.329" N	81° 0' 44.735" E
46	P46		501433.8439	2294325.196	20° 44' 54.967" N	81° 0' 49.585" E
47	P47		501579.3075	2294325.924	20° 44' 54.990" N	81° 0' 54.615" E
48	P48		501727.585	2294300.644	20° 44' 54.167" N	81° 0' 59.742" E
49	P49		501876.3561	2294282.415	20° 44' 53.574" N	81° 1' 4.887" E
50	P50		502026.0136	2294267.725	20° 44' 53.096" N	81° 1' 10.062" E
51	P51		502175.6255	2294258.445	20° 44' 52.793" N	81° 1' 15.236" E
52	P52		502299.9173	2294252.348	20° 44' 52.594" N	81° 1' 19.534" E
53	P53		502410.2734	2294252.479	20° 44' 52.598" N	81° 1' 23.351" E
54	P54		502493.6941	2294305.066	20° 44' 54.308" N	81° 1' 26.236" E
55	P55	Patch-1_7	502666.5084	2294430.673	20° 44' 58.393" N	81° 1' 32.212" E
56	P56		502785.3591	2294520.869	20° 45' 1.327" N	81° 1' 36.323" E
57	P57		502914.6552	2294599.287	20° 45' 3.877" N	81° 1' 40.795" E
58	P58		503012.874	2294713.61	20° 45' 7.595" N	81° 1' 44.192" E
59	P59		503079.4432	2294840.228	20° 45' 11.713" N	81° 1' 46.495" E
60	P60		503101.7324	2294978.143	20° 45' 16.200" N	81° 1' 47.267" E
61	P61		503099.1422	2295116.951	20° 45' 20.715" N	81° 1' 47.178" E
62	P62		503162.5842	2295242.022	20° 45' 24.783" N	81° 1' 49.373" E
63	P1	Patch-2_1	504621.6691	2278170.385	20° 36' 9.439" N	81° 2' 39.672" E
64	P2		504392.9258	2278069.682	20° 36' 6.166" N	81° 2' 31.768" E
65	P3		504164.024	2277968.932	20° 36' 2.890" N	81° 2' 23.859" E
66	P4		503934.7605	2277869.502	20° 35' 59.657" N	81° 2' 15.938" E
67	P5		503787.114	2277803.201	20° 35' 57.502" N	81° 2' 10.836" E
68	P6		503620.5503	2277729.687	20° 35' 55.112" N	81° 2' 5.081" E
69	P7	Patch-2_2	502463.4345	2277347.444	20° 35' 42.684" N	81° 1' 25.104" E
70	P8		502252.0909	2277250.779	20° 35' 39.540" N	81° 1' 17.802" E
71	P9		502198.2818	2277053.719	20° 35' 33.130" N	81° 1' 15.942" E
72	P10	Patch-2_3	501723.2298	2276814.627	20° 35' 25.354" N	81° 0' 59.530" E
73	P11		501640.2734	2276785.766	20° 35' 24.416" N	81° 0' 56.664" E
74	P12	Patch-2_4	501465.4181	2276736.201	20° 35' 22.804" N	81° 0' 50.624" E
75	P13		501307.4806	2276647.704	20° 35' 19.926" N	81° 0' 45.167" E
76	P14		501108.9252	2276495.811	20° 35' 14.985" N	81° 0' 38.308" E
77	P15		500881.0644	2276397.711	20° 35' 11.794" N	81° 0' 30.436" E
78	P16		500643.5514	2276319.7	20° 35' 9.257" N	81° 0' 22.231" E
79	P17		500441.0163	2276238.135	20° 35' 6.604" N	81° 0' 15.235" E
80	P18		500370.4036	2276176.207	20° 35' 4.589" N	81° 0' 12.795" E

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
81	P1	Patch-3_1	519421.7984	2290995.865	20° 43' 6.304" N	81° 11' 11.501" E
82	P2		519173.7247	2291026.51	20° 43' 7.310" N	81° 11' 2.925" E
83	P3		518944.9511	2290938.129	20° 43' 4.444" N	81° 10' 55.012" E
84	P4		518719.5505	2290830.071	20° 43' 0.937" N	81° 10' 47.215" E
85	P5		518492.7593	2290725.062	20° 42' 57.529" N	81° 10' 39.370" E
86	P6		518269.9777	2290611.758	20° 42' 53.851" N	81° 10' 31.663" E
87	P7		518023.0665	2290575.5	20° 42' 52.681" N	81° 10' 23.125" E
88	P8		517775.4037	2290541.399	20° 42' 51.580" N	81° 10' 14.561" E
89	P9		517528.0888	2290504.894	20° 42' 50.401" N	81° 10' 6.010" E
90	P10		517280.5719	2290469.919	20° 42' 49.271" N	81° 9' 57.451" E
91	P11		517034.2641	2290427.305	20° 42' 47.893" N	81° 9' 48.934" E
92	P12		516795.9433	2290360.047	20° 42' 45.713" N	81° 9' 40.692" E
93	P13		516574.0155	2290246.99	20° 42' 42.043" N	81° 9' 33.015" E
94	P14		516368.6883	2290104.388	20° 42' 37.410" N	81° 9' 25.912" E
95	P15		516161.4982	2289964.503	20° 42' 32.867" N	81° 9' 18.744" E
96	P16		515951.9064	2289828.259	20° 42' 28.441" N	81° 9' 11.493" E
97	P17		515741.2368	2289693.672	20° 42' 24.070" N	81° 9' 4.206" E
98	P18		515533.142	2289555.163	20° 42' 19.570" N	81° 8' 57.007" E
99	P19		515325.9586	2289415.409	20° 42' 15.030" N	81° 8' 49.840" E
100	P20		515119.5828	2289274.377	20° 42' 10.449" N	81° 8' 42.701" E
101	P21		514914.8629	2289130.899	20° 42' 5.787" N	81° 8' 35.619" E
102	P22	514723.838	2288974.442	20° 42' 0.703" N	81° 8' 29.011" E	
103	P23	514724.7616	2288724.899	20° 41' 52.586" N	81° 8' 29.035" E	
104	P24	514721.7161	2288476.535	20° 41' 44.507" N	81° 8' 28.922" E	
105	P25	514596.3914	2288260.304	20° 41' 37.476" N	81° 8' 24.583" E	
106	P26	514565.4783	2288023.991	20° 41' 29.790" N	81° 8' 23.508" E	
107	P27	514365.7472	2287873.685	20° 41' 24.906" N	81° 8' 16.599" E	
108	P28	514161.7043	2287729.889	20° 41' 20.234" N	81° 8' 9.541" E	
109	P29	513914.6092	2287695.361	20° 41' 19.118" N	81° 8' 0.999" E	
110	P30	513869.7725	2287496.829	20° 41' 12.661" N	81° 7' 59.443" E	
111	P1	Patch-4_1	507372.7157	2273293.996	20° 33' 30.779" N	81° 4' 14.643" E
112	P2		507461.5737	2273064.556	20° 33' 23.314" N	81° 4' 17.709" E
113	P3		507536.0155	2272832.086	20° 33' 15.751" N	81° 4' 20.276" E
114	P4		507656.5002	2272663.143	20° 33' 10.254" N	81° 4' 24.435" E
115	P5	Patch-4_2	507708.8247	2272462.067	20° 33' 3.712" N	81° 4' 26.239" E
116	P6		507728.2701	2272213.01	20° 32' 55.610" N	81° 4' 26.906" E
117	P7		507719.8367	2272076.128	20° 32' 51.157" N	81° 4' 26.613" E
118	P8	Patch-4_3	507716.3873	2272031.175	20° 32' 49.695" N	81° 4' 26.493" E
119	P9		507717.7266	2272001.205	20° 32' 48.720" N	81° 4' 26.539" E
120	P10		507719.3523	2271971.25	20° 32' 47.745" N	81° 4' 26.595" E
121	P11		507720.5191	2271954.415	20° 32' 47.198" N	81° 4' 26.635" E



DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
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122	P12	Patch-4_4	507725.7596	2270953.305	20° 32' 14.632" N	81° 4' 26.800" E
123	P13		507721.0395	2270918.698	20° 32' 13.506" N	81° 4' 26.636" E
124	P14		507718.5082	2270888.659	20° 32' 12.529" N	81° 4' 26.548" E
125	P15	Patch-4_5	508220.1622	2269681.945	20° 31' 33.267" N	81° 4' 43.852" E
126	P16		508212.0173	2269622.614	20° 31' 31.337" N	81° 4' 43.570" E
127	P17		508206.4464	2269580.362	20° 31' 29.962" N	81° 4' 43.377" E
128	P18	Patch-4_6	508299.0677	2269041.185	20° 31' 12.421" N	81° 4' 46.566" E
129	P19		508348.1969	2268899.757	20° 31' 7.820" N	81° 4' 48.260" E
130	P20		508376.7472	2268797.209	20° 31' 4.484" N	81° 4' 49.244" E
131	P21	Patch-4_7	508544.2244	2267342.966	20° 30' 17.174" N	81° 4' 55.002" E
132	P22		508530.6535	2267093.674	20° 30' 9.065" N	81° 4' 54.529" E
133	P23		508525.9537	2266849.281	20° 30' 1.115" N	81° 4' 54.363" E
134	P24	Patch-4_8	508895.9657	2266148.423	20° 29' 38.310" N	81° 5' 7.125" E
135	P25		508941.8118	2266095.536	20° 29' 36.588" N	81° 5' 8.707" E
136	P26		508988.9133	2266049.326	20° 29' 35.084" N	81° 5' 10.332" E
137	P1	Patch-5_1	547417.726	2283064.193	20° 38' 46.494" N	81° 27' 18.664" E
138	P2		547215.7091	2282916.934	20° 38' 41.722" N	81° 27' 11.669" E
139	P3		547059.1731	2282724.04	20° 38' 35.462" N	81° 27' 6.241" E
140	P4		546920.4543	2282516.057	20° 38' 28.709" N	81° 27' 1.427" E
141	P5		546782.6252	2282307.51	20° 38' 21.938" N	81° 26' 56.645" E
142	P6		546643.6899	2282099.701	20° 38' 15.190" N	81° 26' 51.824" E
143	P7		546505.3624	2281891.464	20° 38' 8.429" N	81° 26' 47.024" E
144	P8		546365.8259	2281684.053	20° 38' 1.695" N	81° 26' 42.183" E
145	P9		546225.8518	2281476.968	20° 37' 54.971" N	81° 26' 37.327" E
146	P10		546085.5608	2281270.071	20° 37' 48.253" N	81° 26' 32.459" E
147	P11		545946.0881	2281062.638	20° 37' 41.518" N	81° 26' 27.621" E
148	P12		545807.0892	2280854.912	20° 37' 34.773" N	81° 26' 22.798" E
149	P13		545666.6772	2280648.116	20° 37' 28.059" N	81° 26' 17.928" E
150	P14		545524.9579	2280442.265	20° 37' 21.375" N	81° 26' 13.012" E
151	P15		545360.8708	2280253.816	20° 37' 15.259" N	81° 26' 7.325" E
152	P16		545195.7383	2280066.142	20° 37' 9.169" N	81° 26' 1.602" E
153	P17		545029.1886	2279879.796	20° 37' 3.121" N	81° 25' 55.830" E
154	P18		544864.8002	2279691.517	20° 36' 57.011" N	81° 25' 50.133" E
155	P19		544697.024	2279506.187	20° 36' 50.997" N	81° 25' 44.320" E
156	P20		544531.8573	2279318.571	20° 36' 44.908" N	81° 25' 38.596" E
157	P21		544364.9438	2279132.523	20° 36' 38.870" N	81° 25' 32.813" E
158	P22		544197.5053	2278947.011	20° 36' 32.850" N	81° 25' 27.011" E
159	P23		544029.5063	2278761.977	20° 36' 26.845" N	81° 25' 21.190" E
160	P24		543860.6526	2278577.705	20° 36' 20.866" N	81° 25' 15.340" E

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
161	P25	Patch-5_1	543690.5348	2278394.539	20° 36' 14.922" N	81° 25' 9.446" E
162	P26		543522.2162	2278209.714	20° 36' 8.923" N	81° 25' 3.615" E
163	P27		543351.7772	2278026.904	20° 36' 2.991" N	81° 24' 57.711" E
164	P28		543182.6342	2277842.818	20° 35' 57.017" N	81° 24' 51.851" E
165	P29		543013.1982	2277659.061	20° 35' 51.054" N	81° 24' 45.981" E
166	P30		542841.6113	2277477.271	20° 35' 45.154" N	81° 24' 40.038" E
167	P31		542672.3814	2277293.284	20° 35' 39.183" N	81° 24' 34.176" E
168	P32		542500.0221	2277112.222	20° 35' 33.307" N	81° 24' 28.206" E
169	P33		542330.9891	2276928.036	20° 35' 27.330" N	81° 24' 22.351" E
170	P34		542158.5331	2276747.075	20° 35' 21.457" N	81° 24' 16.378" E
171	P35		541988.0615	2276564.354	20° 35' 15.527" N	81° 24' 10.473" E
172	P36		541816.9265	2276382.147	20° 35' 9.614" N	81° 24' 4.546" E
173	P37		541645.0701	2276200.736	20° 35' 3.727" N	81° 23' 58.594" E
174	P38		541451.7287	2276042.577	20° 34' 58.597" N	81° 23' 51.902" E
175	P39		541253.1929	2275890.662	20° 34' 53.671" N	81° 23' 45.031" E
176	P40		541055.0698	2275738.232	20° 34' 48.728" N	81° 23' 38.175" E
177	P41		540858.0736	2275584.318	20° 34' 43.737" N	81° 23' 31.357" E
178	P42		540661.9915	2275429.365	20° 34' 38.712" N	81° 23' 24.571" E
179	P43		540465.7281	2275274.581	20° 34' 33.692" N	81° 23' 17.779" E
180	P44		540268.7412	2275120.75	20° 34' 28.703" N	81° 23' 10.962" E
181	P45		540069.8562	2274969.351	20° 34' 23.794" N	81° 23' 4.080" E
182	P46		540006.718	2274921.697	20° 34' 22.249" N	81° 23' 1.895" E
183	P47	Patch-5_2	539430.4648	2274477.832	20° 34' 7.854" N	81° 22' 41.955" E
184	P48		539233.587	2274323.921	20° 34' 2.862" N	81° 22' 35.143" E
185	P49		539036.2667	2274170.591	20° 33' 57.889" N	81° 22' 28.315" E
186	P50		538808.477	2274070.186	20° 33' 54.640" N	81° 22' 20.440" E
187	P51		538709.813	2273856.797	20° 33' 47.706" N	81° 22' 17.015" E
188	P52		538813.9287	2273631.175	20° 33' 40.359" N	81° 22' 20.593" E
189	P53		538775.1007	2273399.929	20° 33' 32.839" N	81° 22' 19.234" E
190	P54		538734.661	2273360.897	20° 33' 31.573" N	81° 22' 17.834" E
191	P1	Patch-6_1	522311.1336	2279765.624	20° 37' 0.875" N	81° 12' 50.886" E
192	P2		522494.9759	2279626.078	20° 36' 56.328" N	81° 12' 57.232" E
193	P3		522625.3608	2279420.168	20° 36' 49.624" N	81° 13' 1.727" E
194	P4		522659.746	2279181.05	20° 36' 41.844" N	81° 13' 2.904" E
195	P5		522709.5485	2278940.894	20° 36' 34.030" N	81° 13' 4.614" E
196	P6		522729.0836	2278903.464	20° 36' 32.811" N	81° 13' 5.287" E
197	P7	Patch-6_2	522713.9857	2277632.418	20° 35' 51.466" N	81° 13' 4.707" E
198	P8		522582.0088	2277422.072	20° 35' 44.629" N	81° 13' 0.138" E
199	P9		522408.4935	2277242.918	20° 35' 38.808" N	81° 12' 54.135" E
200	P10		522248.3624	2277054.258	20° 35' 32.678" N	81° 12' 48.595" E
201	P11		522123.0738	2276838.793	20° 35' 25.675" N	81° 12' 44.257" E

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
202	P12	Patch-6_2	522031.481	2276629.15	20° 35' 18.859" N	81° 12' 41.083" E
203	P13		522043.7077	2276382.985	20° 35' 10.851" N	81° 12' 41.495" E
204	P14		522184.9461	2276178.112	20° 35' 4.180" N	81° 12' 46.364" E
205	P15		522383.2896	2276028.892	20° 34' 59.318" N	81° 12' 53.209" E
206	P16		522471.1207	2275798.929	20° 34' 51.833" N	81° 12' 56.233" E
207	P17		522577.0917	2275579.716	20° 34' 44.698" N	81° 12' 59.883" E
208	P18		522604.9829	2275336.695	20° 34' 36.791" N	81° 13' 0.835" E
209	P19		522602.2774	2275090.138	20° 34' 28.771" N	81° 13' 0.731" E
210	P20		522736.0055	2274879.389	20° 34' 21.909" N	81° 13' 5.340" E
211	P21		522893.492	2274685.439	20° 34' 15.593" N	81° 13' 10.771" E
212	P22		523047.7806	2274490.776	20° 34' 9.254" N	81° 13' 16.091" E
213	P23		523165.225	2274286.356	20° 34' 2.599" N	81° 13' 20.138" E
214	P24		523258.6128	2274063.137	20° 33' 55.334" N	81° 13' 23.353" E
215	P25		523332.0656	2273829.892	20° 33' 47.743" N	81° 13' 25.879" E
216	P26		523354.2581	2273581.326	20° 33' 39.657" N	81° 13' 26.634" E
217	P27		523323.4773	2273345.901	20° 33' 32.000" N	81° 13' 25.560" E
218	P28		523104.861	2273228.365	20° 33' 28.186" N	81° 13' 18.003" E
219	P29		522878.3617	2273122.671	20° 33' 24.758" N	81° 13' 10.176" E
220	P30		522727.0979	2272937.041	20° 33' 18.726" N	81° 13' 4.943" E
221	P31		522570.0624	2272760.561	20° 33' 12.992" N	81° 12' 59.511" E
222	P32		522432.4474	2272553.492	20° 33' 6.262" N	81° 12' 54.749" E
223	P33		522426.1685	2272307.005	20° 32' 58.244" N	81° 12' 54.521" E
224	P34		522419.8103	2272058.959	20° 32' 50.175" N	81° 12' 54.290" E
225	P35		522309.399	2271846.722	20° 32' 43.276" N	81° 12' 50.467" E
226	P36		522082.6416	2271742.579	20° 32' 39.898" N	81° 12' 42.631" E
227	P37		522018.1221	2271521.525	20° 32' 32.710" N	81° 12' 40.393" E
228	P38		522092.9067	2271284.518	20° 32' 24.997" N	81° 12' 42.965" E
229	P39		522250.0188	2271091.297	20° 32' 18.705" N	81° 12' 48.382" E
230	P40		522405.1938	2270897.853	20° 32' 12.405" N	81° 12' 53.732" E
231	P41		522529.4273	2270682.039	20° 32' 5.379" N	81° 12' 58.013" E
232	P42		522673.6903	2270478.872	20° 31' 58.764" N	81° 13' 2.985" E
233	P43		522740.3713	2270262.043	20° 31' 51.708" N	81° 13' 5.278" E
234	P44		522586.0402	2270070.175	20° 31' 45.473" N	81° 12' 59.940" E
235	P45		522656.1214	2269837.469	20° 31' 37.900" N	81° 13' 2.349" E
236	P46		522659.948	2269592.749	20° 31' 29.939" N	81° 13' 2.470" E
237	P47		522823.1334	2269420.268	20° 31' 24.322" N	81° 13' 8.097" E
238	P48		522814.4925	2269199.367	20° 31' 17.136" N	81° 13' 7.788" E
239	P49		522651.6832	2269016.408	20° 31' 11.191" N	81° 13' 2.158" E
240	P50		522569.4483	2268811.479	20° 31' 4.529" N	81° 12' 59.309" E
241	P51		522415.1392	2268623.039	20° 30' 58.405" N	81° 12' 53.972" E
242	P52		522221.0684	2268479.938	20° 30' 53.759" N	81° 12' 47.265" E
243	P53		521988.6049	2268424.061	20° 30' 51.951" N	81° 12' 39.236" E
244	P54		521859.7415	2268210.531	20° 30' 45.010" N	81° 12' 34.777" E
245	P55		521736.378	2268129.802	20° 30' 42.389" N	81° 12' 30.514" E

DGPS Survey Points						
BALOD DIVISION						
Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
246	P56	Patch-6_3	521264.1288	2268146.325	20° 30' 42.946" N	81° 12' 14.209" E
247	P57		521041.8409	2268110.349	20° 30' 41.784" N	81° 12' 6.532" E
248	P58		520797.544	2268076.806	20° 30' 40.703" N	81° 11' 58.096" E
249	P59		520551.3577	2268095.564	20° 30' 41.323" N	81° 11' 49.596" E
250	P60		520308.2062	2268109.082	20° 30' 41.772" N	81° 11' 41.201" E
251	P61		520075.5377	2268175.7	20° 30' 43.948" N	81° 11' 33.170" E
252	P62		519842.3255	2268258.232	20° 30' 46.642" N	81° 11' 25.121" E
253	P63		519608.4946	2268326.963	20° 30' 48.887" N	81° 11' 17.050" E
254	P64		519363.6231	2268337.125	20° 30' 49.226" N	81° 11' 8.596" E
255	P65		519163.5591	2268200.21	20° 30' 44.780" N	81° 11' 1.683" E
256	P66		519192.2669	2267964.324	20° 30' 37.105" N	81° 11' 2.665" E
257	P67		518981.0684	2267857.409	20° 30' 33.635" N	81° 10' 55.368" E
258	P68		518754.9799	2267802.114	20° 30' 31.844" N	81° 10' 47.560" E
259	P69		518505.858	2267784.012	20° 30' 31.264" N	81° 10' 38.958" E
260	P70		518304.9062	2267639.742	20° 30' 26.578" N	81° 10' 32.014" E
261	P71		518134.144	2267468.061	20° 30' 21.000" N	81° 10' 26.112" E
262	P72		517888.039	2267443.39	20° 30' 20.205" N	81° 10' 17.614" E
263	P73		517638.5724	2267432.974	20° 30' 19.875" N	81° 10' 9.000" E
264	P74		517475.3626	2267301.857	20° 30' 15.615" N	81° 10' 3.361" E
265	P75		517526.6847	2267068.137	20° 30' 8.011" N	81° 10' 5.124" E
266	P76		517744.995	2266950.946	20° 30' 4.191" N	81° 10' 12.657" E
267	P77		517917.0037	2266798.302	20° 29' 59.220" N	81° 10' 18.591" E
268	P78		517888.6581	2266725.828	20° 29' 56.863" N	81° 10' 17.609" E
269	P79	Patch-6_4	518554.9748	2264479.752	20° 28' 43.775" N	81° 10' 40.530" E
270	P80		518707.9574	2264282.451	20° 28' 37.351" N	81° 10' 45.803" E
271	P81		518816.6312	2264057.451	20° 28' 30.028" N	81° 10' 49.546" E
272	P82		518975.8814	2263866.491	20° 28' 23.810" N	81° 10' 55.036" E
273	P83		519082.862	2263643.071	20° 28' 16.539" N	81° 10' 58.720" E
274	P84		519227.3107	2263439.669	20° 28' 9.917" N	81° 11' 3.699" E
275	P85		519296.8541	2263207.244	20° 28' 2.353" N	81° 11' 6.090" E
276	P86		519382.1044	2262972.337	20° 27' 54.708" N	81° 11' 9.024" E
277	P87		519492.8102	2262748.464	20° 27' 47.422" N	81° 11' 12.836" E
278	P88		519572.1556	2262511.697	20° 27' 39.717" N	81° 11' 15.565" E
279	P89		519643.0417	2262316.868	20° 27' 33.376" N	81° 11' 18.005" E
280	P90	Patch-6_5	523965.2901	2262034.11	20° 27' 23.999" N	81° 13' 47.178" E
281	P91		523902.1422	2262275.784	20° 27' 31.863" N	81° 13' 45.010" E
282	P92		523968.0011	2262432.051	20° 27' 36.944" N	81° 13' 47.291" E
283	P93		524203.1575	2262514.476	20° 27' 39.614" N	81° 13' 55.411" E
284	P94		524324.3149	2262516.145	20° 27' 39.663" N	81° 13' 59.593" E
285	P1	Patch-7_1	497108.8985	2272866.316	20° 33' 16.911" N	80° 58' 20.148" E
286	P2		497087.0873	2272837.54	20° 33' 15.975" N	80° 58' 19.395" E
287	P3		497061.0968	2272803.249	20° 33' 14.859" N	80° 58' 18.497" E

# DGPS Survey Points

## BALOD DIVISION

Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
288	P4	Patch-7_2	496852.765	2272530.347	20° 33' 5.980" N	80° 58' 11.304" E
289	P5		496821.905	2272489.977	20° 33' 4.667" N	80° 58' 10.238" E
290	P6		496787.5289	2272445.007	20° 33' 3.204" N	80° 58' 9.051" E
291	P7	Patch-7_3	496366.9829	2271349.944	20° 32' 27.579" N	80° 57' 54.535" E
292	P8		496296.9619	2271214.597	20° 32' 23.175" N	80° 57' 52.118" E
293	P9		496218.922	2271077.22	20° 32' 18.706" N	80° 57' 49.424" E
294	P10		496110.4622	2270903.343	20° 32' 13.049" N	80° 57' 45.680" E
295	P11		496110.4622	2270903.343	20° 32' 13.049" N	80° 57' 45.680" E
296	P12		496014.769	2270760.213	20° 32' 8.392" N	80° 57' 42.376" E
297	P13		495909.3857	2270587.832	20° 32' 2.784" N	80° 57' 38.739" E
298	P14		495844.8086	2270454	20° 31' 58.430" N	80° 57' 36.510" E
299	P15		495797.0873	2270311.774	20° 31' 53.803" N	80° 57' 34.863" E
300	P16		495709.1968	2270188.485	20° 31' 49.791" N	80° 57' 31.829" E
301	P17		495619.145	2270065.824	20° 31' 45.800" N	80° 57' 28.720" E
302	P1	Patch-8_1	506474.5398	2296685.754	20° 46' 11.716" N	81° 3' 43.931" E
303	P2		506499.2309	2296627.662	20° 46' 9.826" N	81° 3' 44.784" E
304	P3	Patch-8_2	506914.167	2295257.514	20° 45' 25.250" N	81° 3' 59.116" E
305	P4		506955.8201	2295172.226	20° 45' 22.475" N	81° 4' 0.555" E
306	P5		506993.3946	2295091.401	20° 45' 19.846" N	81° 4' 1.853" E
307	P6	Patch-8_3	506996.2764	2295084.549	20° 45' 19.623" N	81° 4' 1.953" E
308	P7		507004.0964	2295063.716	20° 45' 18.945" N	81° 4' 2.223" E
309	P8	Patch-8_4	507591.4755	2294183.194	20° 44' 50.294" N	81° 4' 22.522" E
310	P9		507594.2174	2294164.12	20° 44' 49.674" N	81° 4' 22.617" E
311	P10		507595.1183	2294143.686	20° 44' 49.009" N	81° 4' 22.648" E
312	P11	Patch-8_5	507290.5565	2293355.82	20° 44' 23.384" N	81° 4' 12.104" E
313	P12		507276.8301	2293166.888	20° 44' 17.239" N	81° 4' 11.626" E
314	P13		507275.3927	2292988.434	20° 44' 11.434" N	81° 4' 11.574" E
315	P14		507246.2533	2292774.118	20° 44' 4.463" N	81° 4' 10.563" E
316	P15		507138.9665	2292623.013	20° 43' 59.549" N	81° 4' 6.851" E
317	P16		507227.9329	2292456.383	20° 43' 54.127" N	81° 4' 9.925" E
318	P17	Patch-8_6	507905.2781	2292150.379	20° 43' 44.163" N	81° 4' 33.341" E
319	P18		507998.313	2292113.221	20° 43' 42.953" N	81° 4' 36.557" E
320	P19	Patch-8_7	509208.3373	2288274.927	20° 41' 38.076" N	81° 5' 18.324" E
321	P20		509145.6529	2288064.448	20° 41' 31.230" N	81° 5' 16.153" E
322	P21		509074.1167	2287824.216	20° 41' 23.417" N	81° 5' 13.676" E

# DGPS Survey Points

## BALOD DIVISION

Sr.No.	Point ID	Patch No	UTM Coordinates		Geographical Coordinates	
			Easting (m)	Northing (m)	Latitude "N"	Longitude "E"
323	P22	Patch-8_8	509074.1167	2287824.216	20° 41' 23.417" N	81° 5' 13.676" E
324	P23		509074.1167	2287824.216	20° 41' 23.417" N	81° 5' 13.676" E
325	P24	Patch-8_9	508815.9873	2285579.608	20° 40' 10.405" N	81° 5' 4.712" E
326	P25		508803.0766	2285478.853	20° 40' 7.128" N	81° 5' 4.264" E
327	P26		508790.0423	2285377.311	20° 40' 3.825" N	81° 5' 3.812" E

वन परिक्षेत्र अधिकारी

वन परिक्षेत्र.....इल्मी

वन परिक्षेत्र अधिकारी

वन परिक्षेत्र.....डॉ.डी.....

वन परिक्षेत्र अधिकारी

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वन परिक्षेत्र.....बालोद

वन परिक्षेत्र अधिकारी

वन परिक्षेत्र.....गुलर

उप वनमण्डल अधिकारी

दल्ली राजहरा

उप वनमण्डल अधिकारी

बालोद

Divisional Forest Officer

Balod Division, Balod

