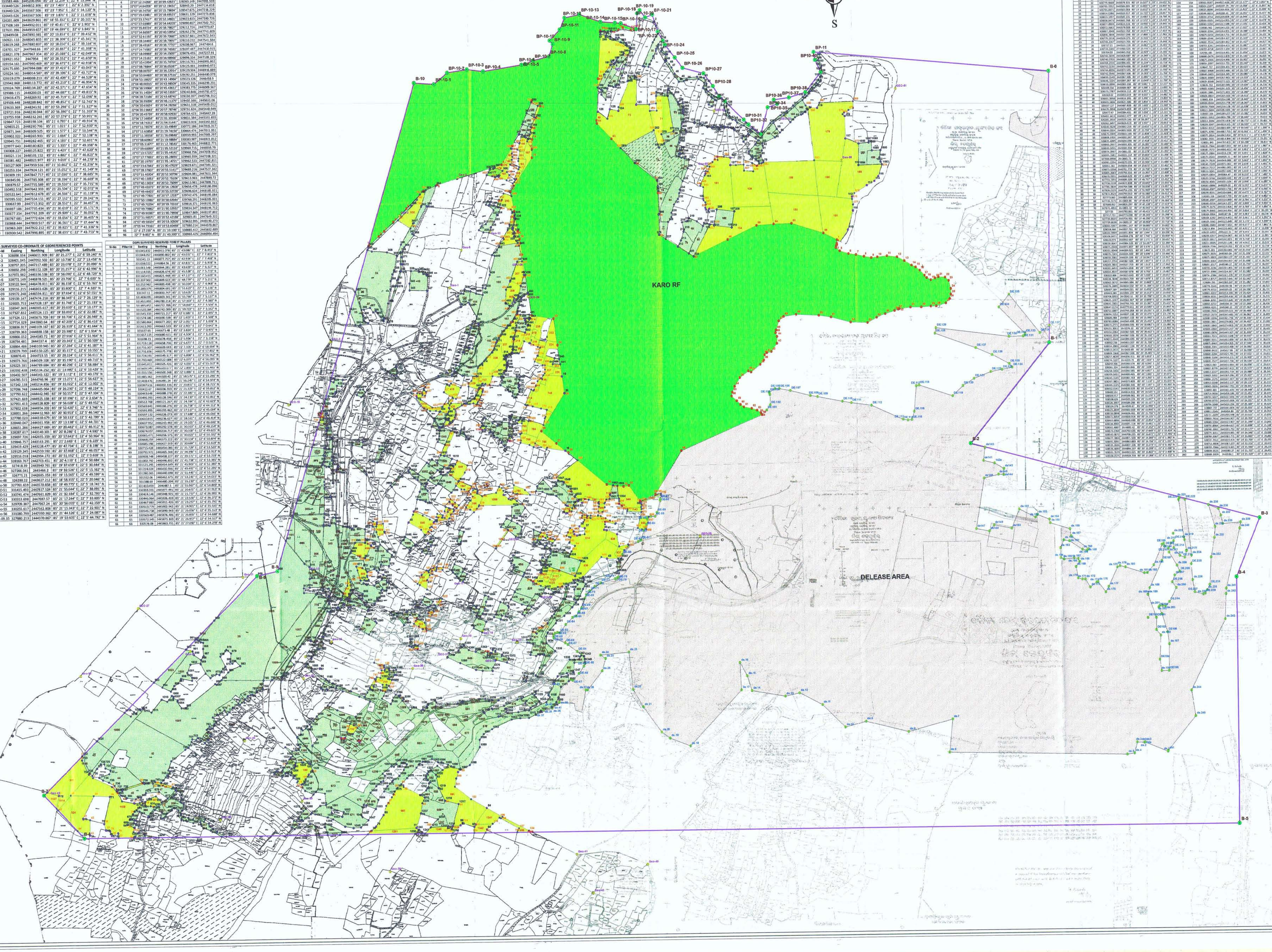
GEOREFERENCED MAP SHOWING DGPS SURVEYED HAL AND SABIK FOREST AREA AS ON 25-10-1980 FOR DIVERSION WITHIN 6.90 Sq. MILES (1586.36Ha.) ML BOUNDARY OF BOLANI IRON AND Mn. MINES OF M/s STEEL AUTHORITY OF INDIA LTD. IN VILLAGES BOLANI,BALAGODA,LIMTUR AND KARO RESERVE FOREST IN CHAMPUA SUB DIVISION, BARBIL TAHSIL OF KEONJHAR DISTRICT.



ORSAC SURVEYED ML PILLARS CO-ORDINATE					
Sl-No	**Pillar-No**	**Easting**	**Northing**	**Longitude**	**Latitude**
1	B-0	332339.592	2447913.24	85° 22' 27.853" E	22° 7' 41.525" N
2	B-1	332321.754	2446277.603	85° 22' 27.841" E	22° 6' 48.343" N
3	B-2	331839.851	2445674.755	85° 22' 11.252" E	22° 6' 28.576" N
4	B-3	333583.466	2445206.094	85° 23' 12.259" E	22° 6' 13.944" N
5	B-4	333440.526	2444852.306	85° 23' 7.403" E	22° 6' 2.392" N
6	B-5	333440.526	2443367.506	85° 23' 7.952" E	22° 5' 14.120" N
7	B-6	326443.626	2443367.506	85° 19' 3.876" E	22° 5' 11.658" N
8	B-7	326201.609	2443629.861	85° 18' 55.332" E	22° 5' 20.101" N
9	B-8	327508.169	2444932.011	85° 19' 40.411" E	22° 6' 2.902" N
10	B-9	327631.396	2444959.657	85° 19' 44.699" E	22° 6' 3.845" N
11	B-10	328499.08	2447890.381	85° 20' 13.853" E	22° 7' 39.432" N
12	BP-11	330921.133	2448045.855	85° 21' 38.308" E	22° 7' 45.341" N
13	BP-10-1	328619.268	2447880.837	85° 20' 18.050" E	22° 7' 39.164" N
14	BP-10-2	328701.327	2447948.66	85° 20' 20.887" E	22° 7' 41.398" N
15	BP-10-3	328821.378	2447967.354	85° 20' 25.069" E	22° 7' 42.049" N
16	BP-10-4	328921.052	2447954	85° 20' 28.552" E	22° 7' 41.650" N
17	BP 10 5	329154.161	2447990.469	85° 20' 36.672" E	22° 7' 42.918" N
18	BP-10-6	329175.695	2447994.088	85° 20' 37.423" E	22° 7' 43.043" N
19	BP-10-7	329224.161	2448014.587	85° 20' 39.106" E	22° 7' 43.727" N
20	BP-10-8	329319.079	2448038.213	85° 20' 42.409" E	22° 7' 44.529" N
21	BP-10-9	329342.868	2448113.772	85° 20' 43.210" E	22° 7' 46.994" N
22	BP-10-10	329324.769	2448134.287	85° 20' 42.571" E	22° 7' 47.654" N
23	BP-10-11	329386.115	2448200.03	85° 20' 44.687" E	22° 7' 49.813" N
24	BP-10-12	329416.475	2448269.92	85° 20' 45.719" E	22° 7' 52.096" N
25	BP-10-13	329506.448	2448288.842	85° 20' 48.852" E	22° 7' 52.743" N
26	BP-10-14	329633.369	2448243.92	85° 20' 53.298" E	22° 7' 51.327" N
27	BP-10-15	329721.916	2448236.044	85° 20' 56.390" E	22° 7' 51.103" N
28	BP-10-16	329755.938	2448232.241	85° 20' 57.579" E	22° 7' 50.991" N
29	BP-10-17	329847.723	2448198.104	85° 21' 0.795" E	22° 7' 49.914" N
30	BP-10-18	329855.21	2448290.796	85° 21' 1.021" E	22° 7' 52.930" N
31	BP-10-19	329871.344	2448309.525	85° 21' 1.577" E	22° 7' 53.544" N
32	BP-10-20	329902.022	2448265.933	85° 21' 2.664" E	22° 7' 52.138" N
33	BP-10-21	329945.751	2448282.465	85° 21' 4.183" E	22° 7' 52.691" N
34	BP-10-22	329977.643	2448180.823	85° 21' 5.335" E	22° 7' 49.398" N
35	BP-10-23	330008.227	2448125.822	85° 21' 6.423" E	22° 7' 47.620" N
36	BP-10-24	330021.114	2448101.152	85° 21' 6.882" E	22° 7' 46.823" N
37	BP-10-25	330081.482	2448021.977	85° 21' 9.018" E	22° 7' 44.270" N
38	BP-10-26	330127.909	2447959.516	85° 21' 10.662" E	22° 7' 42.256" N
39	BP-10-27	330253.334	2447924.121	85° 21' 15.052" E	22° 7' 41.149" N
40	BP10-28	330309.191	2447847.717	85° 21' 17.030" E	22° 7' 38.685" N
41	BP10-29	330345.96	2447785.308	85° 21' 18.336" E	22° 7' 36.669" N
42	BP10-30	330379.57	2447755.589	85° 21' 19.520" E	22° 7' 35.715" N
43	BP10-31	330492.518	2447642.333	85° 21' 23.504" E	22° 7' 32.072" N
44	BP10-32	330522.641	2447612.678	85° 21' 24.566" E	22° 7' 31.119" N
45	BP10-33	330595.532	2447554.151	85° 21' 27.132" E	22° 7' 29.242" N
46	BP10-34	330637.99	2447715.352	85° 21' 28.552" E	22° 7' 34.497" N
47	BP10-35	330697.186	2447735.434	85° 21' 30.610" E	22° 7' 35.171" N
48	BP10-36	330677.354	2447761.209	85° 21' 29.909" E	22° 7' 36.002" N
49	BP10-37	330767.681	2447772.624	85° 21' 33.056" E	22° 7' 36.405" N
50	BP10-38	330868.444	2447803.517	85° 21' 36.561" E	22° 7' 37.444" N
51	BP10-39	330963.269	2447922.212	85° 21' 39.825" E	22° 7' 41.336" N
52	BP10-40	330930.542	2447996.895	85° 21' 38.655" E	22° 7' 43.753" N

DGPS SURVEYED CO-ORDINATE OF GEOREFERENCED POINTS					
Sl-No	**Point-Id**	**Easting**	**Northing**	**Longitude**	**Latitude**
1	Geo-1	328698.334	2446651.909	85° 20' 21.277" E	22° 6' 59.240" N
2	Geo-2	328401.045	2447092.502	85° 20' 10.736" E	22° 7' 13.458" N
3	Geo-3	328757.205	2447317.489	85° 20' 23.078" E	22° 7' 20.899" N
4	Geo-4	328692.298	2446152.328	85° 20' 21.257" E	22° 6' 42.996" N
5	GEO-5	327972.982	2446336.538	85° 19' 56.090" E	22° 6' 48.729" N
6	Geo-6	328772.149	2446878.521	85° 20' 23.766" E	22° 7' 6.633" N
7	GEO-07	329122.944	2446478.811	85° 20' 36.158" E	22° 6' 53.763" N
8	GEO-08	329116.215	2446803.626	85° 20' 35.800" E	22° 7' 4.320" N
9	GEO-09	329172.248	2446594.811	85° 20' 37.834" E	22° 6' 57.551" N
10	Geo-10	329139.147	2447474.218	85° 20' 36.345" E	22° 7' 26.129" N
11	Geo-11	329005.753	2447328.137	85° 20' 31.746" E	22° 7' 21.333" N
12	Geo-12	328947.369	2446985.617	85° 20' 29.839" E	22° 7' 10.177" N
13	GEO-13	327327.832	2445524.115	85° 19' 33.893" E	22° 6' 22.087" N
14	Geo-14	327324.121	2445673.703	85° 19' 33.706" E	22° 6' 26.949" N
15	GEO-15	327714.329	2445960.64	85° 19' 47.209" E	22° 6' 36.416" N
16	GEO-16	328836.917	2446109.167	85° 20' 26.319" E	22° 6' 41.644" N
17	Geo-17	328739.363	2444888.158	85° 20' 23.380" E	22° 6' 1.914" N
18	Geo-18	328866.052	2444580.72	85° 20' 27.916" E	22° 5' 51.964" N
19	Geo-19	328734.481	2444537.4	85° 20' 23.343" E	22° 5' 50.509" N
20	GEO-20	328864.486	2446100.945	85° 20' 27.284" E	22° 6' 41.387" N
21	GEO-21	329079.799	2445150.225	85° 20' 35.157" E	22° 6' 10.555" N
22	GEO-22	328876.41	2444723.55	85° 20' 28.224" E	22° 5' 56.611" N
23	Geo-23	329073.766	2444509.108	85° 20' 35.190" E	22° 5' 49.710" N
24	GEO-24	329223.181	2444789.684	85° 20' 40.296" E	22° 5' 58.884" N
25	GEO-25	330192.438	2445134.252	85° 21' 13.980" E	22° 6' 10.428" N
26	Geo-26	326432.507	2444343.322	85° 19' 3.112" E	22° 5' 43.378" N
27	GEO-27	326785.515	2444746.96	85° 19' 15.271" E	22° 5' 56.627" N
28	GEO-28	327242.138	2445214.856	85° 19' 31.022" E	22° 6' 12.002" N
29	Geo-29	327096.748	2444485.064	85° 19' 26.230" E	22° 5' 48.224" N
30	GEO-30	327793.622	2444442.945	85° 19' 50.557" E	22° 5' 47.104" N
31	Geo-31	327421.669	2444925.338	85° 19' 37.396" E	22° 6' 2.654" N
32	Geo-32	327951.413	2444528.809	85° 19' 56.028" E	22° 5' 49.952" N
33	GEO-33	327852.638	2444954.202	85° 19' 52.420" E	22° 6' 3.746" N
34	GEO-34	328951.266	2444412.963	85° 20' 30.953" E	22° 5' 46.540" N
35	Geo-35	327780.023	2444310.679	85° 19' 50.133" E	22° 5' 42.799" N
36	Geo-36	328440.047	2444361.958	85° 20' 13.138" E	22° 5' 44.701" N
37	GEO-37	328651.286	2444427.669	85° 20' 20.482" E	22° 5' 46.912" N
38	Geo-38	328287.617	2443140.301	85° 20' 8.286" E	22° 5' 4.930" N
39	Geo-39	329697.726	2442695.359	85° 20' 57.643" E	22° 4' 50.964" N
40	Geo-40	329846.757	2443163.291	85° 21' 2.665" E	22° 5' 6.229" N
41	Geo-41	329419.429	2443228.477	85° 20' 47.734" E	22° 5' 8.198" N
42	Geo-42	329129.245	2442550.592	85° 20' 37.868" E	22° 4' 46.057" N
43	Geo-43	329516.018	2442994.272	85° 20' 51.192" E	22° 5' 0.618" N
44	Geo-44	328163.767	2442703.451	85° 20' 4.133" E	22° 4' 50.684" N
45	Geo-45	327418.39	2443940.761	85° 19' 37.659" E	22° 5' 30.644" N
46	Geo-46	327266.041	2443466.2	85° 19' 32.526" E	22° 5' 15.162" N
47	Geo-47	326771.21	2442685.353	85° 19' 15.565" E	22° 4' 49.599" N
48	Geo-48	326288.22	2443627.212	85° 18' 58.355" E	22° 5' 20.046" N
49	Geo-50	327761.659	2443570.858	85° 19' 49.775" E	22° 5' 18.741" N
50	GEO-51	331415.493	2447817.524	85° 21' 55.644" E	22° 7' 38.091" N
51	GEO-52	330741.474	2447661.829	85° 21' 32.184" E	22° 7' 32.793" N
52	GEO-53	330313.698	2447697.57	85° 21' 17.244" E	22° 7' 33.805" N
53	Geo-54	329709.387	2447967.24	85° 20' 56.055" E	22° 7' 42.359" N
54	Geo-55	330255.617	2447362.806	85° 21' 15.343" E	22° 7' 22.901" N
55	Geo-56	331080.799	2447390.362	85° 21' 44.126" E	22° 7' 24.087" N
56	s.06.09.35	327880.213	2444370.867	85° 19' 53.605" E	22° 5' 44.792" N

- DGPS survey of Sabik kissam forest areas proposed for diversion in 6.90 sq. mile Mining lease of Bolani Ore Mines (1586.36Ha.) of M/s. Steel Authority of India Ltd. has been carried out by the user agency through M/s. Natural Resources Management & Techno Consultancy Services, Bhubaneswar.
- Survey co-ordinates are verified by ORSAC. Also the map showing Sabik Kissam forest areas proposed for diversion are verified with geo-referenced cadastral sheets and compared with Ortho-rectified Cartosat Satellite image and found that the map is correct at a confidence level of 95%.
- Total Sabik Kissam forest areas proposed for diversion comes in 10 no. of cadastral sheets of three revenue villages and works out to 240.973 Ha. against the mentioned 238.103 Ha. in the submitted land schedule.

22/07/2016

(Ashok Tohapatra)
Scientist 'SC'

ORISSA SPACE APPLICATIONS CENTRE
BHUBANESWAR
Map No. EDC-28
Date 22/07/2016
Auth. Signatory

Legend

●	ORSAC surveyed ML Pillars
●	DGPS observation for Geo-referencing
●	Surveyed RF Pillars
●	Surveyed delease pillars
●	Surveyed forest pillars
●	Derived Hal forest pillars
●	Derived Sabik forest pillars
☐	ML-Boundary
🟨	Hal Forest
▨	Sabik Forest
🟩	Karo RF
▨	Deleased area

SURVEYED & PREPARED BY -

NATURAL RESOURCES MANAGEMENT & TECHNO CONSULTANCY SERVICES

Revenue Inspector
Barbil

Forest Range Officer
Barbil Range

O/o the Deputy Director of Mines
Joda

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TAHASILDAR
BARBIL