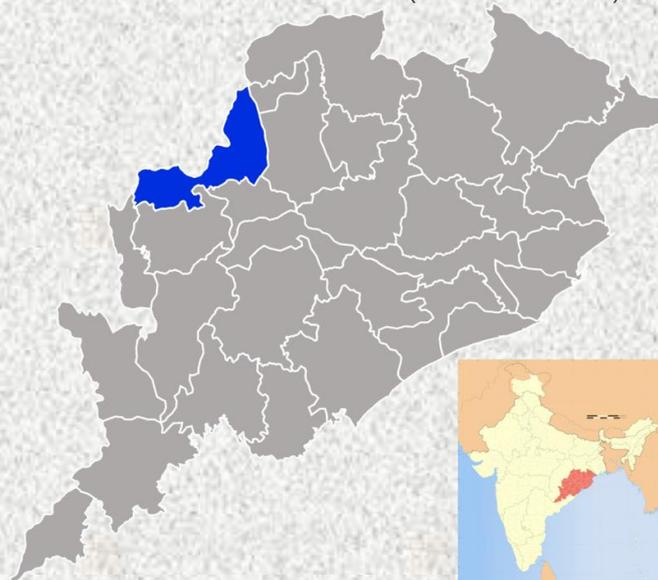


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DISTRICT SURVEY REPORT (DSR) OF BARGARH DISTRICT, ODISHA ON STONE/ROAD METAL MINING

As per Notification No. S.O. 141(E), 15th January, 2016 & S.O. 3611(E),
25th July, 2018, New Delhi, MINISTRY OF ENVIRONMENT, FOREST &
CLIMATE CHANGE (MoEF & CC)



**DISTRICT ADMINISTRATION
BARGARH, ODISHA
NOVEMBER-2019**

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 Additional District Magistrate
 BARGARH


 COLLECTOR
 BARGARH

0. PREFACE

The Erstwhile Ministry of Environment and Forests(MoEF), (the Government of India, made Environmental Clearance (EC) for mining of minerals mandatory through its Notification of 27th January, 1994 under the provisions of Environment Protection Act, 1986. Keeping in view the experience gained in environmental clearance process over a period of one decade, the Ministry came out with Environmental Impact Notification, SO 1533 (E), dated 14th September 2006. The Ministry of Environment, Forests & Climate Change (MoEF&CC), Government of India had amended the said vide notification S.O. 141(E) Dated 15th January, 2016. Now again Ministry of Environment, Forests & Climate Change (MoEF&CC), Government of India amended the notification S.O. 141(E) Dated 15th January, 2016 vide S.O. 3611(E) Dated 25th July, 2018. It has been made mandatory to obtain environmental clearance for different kinds of development projects as listed in Appendix-X of the Notification.

Further, in pursuance to the order of Hon'ble Supreme Court dated the 27th February, 2012 in I.A. No.12- 13 of 2011 in Special Leave Petition (C) No.19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others etc., prior environmental clearance has now become mandatory for mining of minor minerals irrespective of the area of mining lease; And also in view of the Hon'ble National Green Tribunal, order dated the 13th January, 2015 in the matter regarding sand mining has directed for making a policy on environmental clearance for mining leases in cluster for minor Minerals, The Ministry of Environment, Forest and Climate Change in consultation with State governments has prepared Guidelines on Sustainable Sand Mining detailing the provisions on environmental clearance for cluster, creation of District Environment Impact Assessment Authority(DEIAA) and proper monitoring of minor mineral mining using information

technology and information technology enabled services to track the mined out material from source to destination.

The DEIAA and DEAC will scrutinize and recommend the prior environmental clearance of mining of minor minerals on the basis of District Survey Report. This will be a model and guiding document which is a compendium of available mineral resources, geographical set up, environmental and ecological set up of the district and replenishment of minerals and is based on data of various departments, published reports, journals and websites.

The District Survey Report (DSR) shall form the basis for application for environment clearance, preparation of reports and appraisal of projects. The Report will be updated every five years.

Accordingly, a survey has been carried out by the **District Level Environment Impact Assessment Authority (DEIAA), Malkangiri** with the assistance of Geology and Mining Department and involvement all other related Departments like Revenue Department, Irrigation Department, Forest Department, etc. in the district as per the MoEF, New Delhi, notification S.O. 141(E) dated 15th January 2016 to prepare the District survey Report (DSR) of Malkangiri District (For Sand) in the year 2019. District Survey Report of Sand mining has been prepared in accordance with *Clause-II of Appendix X* of the said notification.

OBJECTIVES

The main objective of the preparation of District Survey Report is to ensure the following –

- Identification of mineral wealth in the district.
- Identification of areas of Minor Mineral having the potential mineral where mining can be allowed. And

- Identification of areas of proximity to infrastructural structures and installations where mining should be prohibited.

01. INTRODUCTION.

Bargarh is a district on the Western border of Orissa. Prior to 1992, it was a subdivision of Sambalpur district. Bargarh District formed on the 1st April 1993 being devided from Sambalpur District. It is one of the illustrious District of Odisha. Bargarh has been named after the headquarters town Bargarh situated on the left bank of the Jirariver. The town is on the National Highway No.6 and located at 59 km to the west of Sambalpur district. It is also served by the D.B.K railway running from Jharsuguda to Titlagarh. The railway station is about 3 kms off the town. A meter gauge railway line connects Bargarh with the lime stone quarry at Dunguri. The main Hirakud canal passes through the town and is known as the Bargarh canal. Bargarh District lies on the western most corner of Odisha between 20 degree 43' to 21 degree 41' north latitude and 82 degree 39' to 83 degree 58' east longitude. The District is surrounded by Chhatisgarh state on the north, Sambalpur District on the east, Balangir and Subarnapur on the south and Nuapada District on the west. The original name of the place was Baghar Kota as known from the inscription of the 11th century AD. It was called Bargarh probably from the time of BalaramDev the first Chouhan Raja of Sambalpur who made it his head quarters for some time and constructed a big fort for it's protection. Narayan Singh the last Chouhan Raja granted this place in Mauzi (free hold) to two Brahmin brothers Krushna Das and Narayan Das, sons of Baluki Das who was killed in action by the Gond rebels led by Bandhy Ray and Mahapatra Ray. The grant is popularly known as Sira-kata(head-cutting) grant.

To know the history of the newly formed Bargarh district one cannot ignore the history of undivided Sambalpur district, because Bargarh was one of the subdivisions of old Sambalpur district. This district lies at the close proximity of Sambalpur subdivision separated by the Mahanadi river. The Chouhans,were the most powerful and ruled over a cluster of 18 states in western Orissa and

eastern part of Madhya Pradesh. The Chauhan states which crumbled by the British Imperialism, lapsed to the East India Company in 1849 when the last Raja Narayan Singh died without any issue. The Principal Assistant of the British Agent for the south east frontier having his headquarters at Ranchi took over the rein of administration of these states. Prior to 1905, Sambalpur and Bargarh sub- divisions were part of present Chhatisgarh state (erstwhile Central province). In 1936, separate province of Orissa was formed. In the year 1948, the ex-state areas of Bamra and Rairakhol were added to the district of Sambalpur. In the year 1969 a new sub-division, Padmapur was created constituting the areas of Bijepur, Gaisilet, Jagadalpur, Melchhamunda, Padmapur, Paikamal and Sohela Police Stations of old Bargarh sub-division. Keeping the smooth administration and effective implementation of developmental programmes in view, 13 districts of Orissa were divided into 30 districts in the years 1992, 1993 and 1994. By this process, the erstwhile Sambalpur district was divided into four districts namely Sambalpur, Jharsuguda, Bargarh and Debagarh. Bargarh district was carved out taking the areas of two sub-divisions, namely, Bargarh and Padmapur from the erstwhile district of Sambalpur as per the Government of Orissa Notification No.14218/R. dated 27.03.1993. The area of Sambalpur district was 17516.00 sq.km as per the 1991 Census and that of Bargarh was 5831.57 sq.km. As such, Bargarh district holds 33.29 percent of the total area of undivided Sambalpur district.

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT.

There is a good potential of ordinary stone & Sand in the district, also there is noticeable quantity of dolomite & lime stone deposit found within the district, a few decorative stone & quartzite deposits also reported within the district.

03. GENERAL PROFILE OF THE DISTRICT.

Bargarh district is situated on the western part of Orissa. It is linked with the state headquarters, Bhubaneswar which is 370 Kms by road and rail.

In conformity with the uniform pattern of district administration, the Collector and the district Magistrate for the district is treated as the pivot of the set up with vast and varied power. As the district Magistrate, he is the highest authority in the district for maintenance of law and order. Although the officials of other departments in the district are under the immediate charge of their respective Heads of departments, the district Collector exercises general supervision over them. The district has been divided into two subdivisions, namely, Bargarh and Padmapur and each sub-division is in charge of a Sub-Collector who looks after the general administration, maintenance of law and order and implementation of developmental programmes. For revenue administration, the district has been divided into 12 tahasils, namely – Paikamal, Padmapur, Sohela, Barapali, Bheden, Bargarh, Bhatli, Attabira, Gaisilet, Bijepur, Ambhabona&Jharbandh and each tahasil is kept in the charge of a Tahsildar. For the maintenance of law and order, the district has been divided into fifteen Police Stations, namely :- Paikamal, Jharbandha, Padmapur, Burden, Gaisilet, Melchhamunda, Sohela, Bijepur, Barapali, Bheden, Bargarh, BargarhSadar, Bhatli, Ambabhona and Attabira. There are 12 CD Blocks in the Bargarh District viz. Ambabhona, Attabira, Bargarh, Barpali, Bhatli, Bheden, Bijepur, Gaisilet, Jharbandh, Padampur, Paikmal and Sohella. Bargarh Municipality is the one Municipality in the District and 3 N.A.Cs are Barpali, Padampur and Attabira. There are total 248 Gram Panchayats and 1208 Revenue villages in the District. The Bargarh District experiences extreme type of climate with hot and dry summer followed by humid monsoon and chilling winter. The temperature varies between 10 degree Celsius to 46 degree Celsius.

The winter season lasts between November to February. The hot season follows thereafter and continues till the second week of June. The south-west monsoon season is from mid June to the end of September. The average annual rainfall in the District is 1527 mm. Agriculture acts as the backbone of the economy of the Bargarh District. Most of the indigenous inhabitants in Bargarh District mainly practice crop cultivation. Because of the presence of natural drainage facilities, the District plain supports the growth of large agricultural products and is free from insects and pests. As we go through the educational scenario of the District, Bargarh District has got many educational institutes like Pharmacy College Barpali, Vikash Junior College, Sri Sri Nrusinghanath Ayurvedic College Paikmal, Panchayat College Bargarh, Larambha College, Bargarh Law college, Anchal College Padampur, Attabira College, Padmashree Krutartha Acharya College of Engineering Bargarh.

Bargarh district celebrates many festivals round the year. Common festivals like Nuakhai, Dhanuyatra, Maha Shivratri of Kedarnath, Nrusingha Chaturdarshi, Sitalasasthi, Viswakarma Puja, Bali yatra of Khuntapali, Baisakh Mela of Nrusinghanath, Falguna Mela of Bhatli. Many prominent personalities born in this district like Parbati Giri, Padmashree Krutartha Acharya, Padmashree Kunjabihari Meher, Surendra Meher, Manabodh Rana.

04. GEOLOGY OF THE DISTRICT.

Geology:

Major portion of the district's landmass is underlain by Archaeans. The remaining area is comprised up of rocks belonging to proterozoics and Gondwanas.

Archaeans

The Archaeans consist of principally of Khondalite suite of rocks & unclassified granite and granite gneisses. The Khondalite group from a significant plateau topography at Gandhamardan associated with rich deposits of bauxite. The rocks also carry economic deposits of Graphite (Sargipalli). A variety of Granite gneisses which are potential source of base metals and gemstones respectively.

Proterozoic (Vindhya)

Proterozoic meta sedimentary rocks are exposed along the area bordering Chhattisgarh. They form the eastern margin of Chhattisgarh basin. The rock types include grit, quartzite, shale, sandstone and slate. These contain important beds of limestone. This has also been targeted for locating primary source for diamond due to long & intermittent history of alluvial diamond recovery.

Gondwana

The lower Gondwana formations rest uncomfortably over pre-cambrian basement along the Ong River alignment. The rock types include shale, sandstone, gritty and conglomeratic sandstone with occasional grey shales. Coal seam belonging to Karharbari/ Basal barakar formations are encountered which also carry fireclay.

Stratigraphy

Quaternary { Soil/ alluvium
Laterite

Gondwana Super Group.....Talchir Formation–(conglomerate, felspathic sandstone and clay)

(Carboniferous to Permian)

Middle to Upper Proterozoics..Chhattisgarh Super Group { Raipur Gr. (shale, purple Quartzite)
Chandarpur Gr. (quartzite, sandstone, shale, phyllite, conglomerate)

Proterozoics..... (Qtz. Vein, dolerite, granophyres, pyroxenite, anthrosite, granite, gneiss, augen gneiss, migmatite).

Archaean..... Eastern ghat Super group.....Khondalite Gr. (calc silicate/ calcgranulite/quartzite/sillimanite quartzite, qtz-gt. Silimanite schist, amphibolites, metavolcanics)

05. DRAINAGE AND IRRIGATION PATTERN.

The general drainage pattern in the district is dendritic to sub-parallel. The Danta, Ong, Jonk, Jira river are main river in the district along with its tributaries. Hirakud Dam catchment area covers a part in north-east of Bargarh district.

Sl no	Name of the River	place of origin	Altitude at Origin (m)	Total Length in District (km)	area Drained (sq.km)	% area drained in the district
1	Danta river	Banjipali village, Bhatli block	184.00	54.00	-	100.00
2	Jeera River	Ramgiri hills of eastern ghat ,Gajapati district	-	83.50	-	70.00
3	Ong River	Beherapani village	457.00	59.00	5128.00	100.00
4	Jonk River	Khariar hills ,Kalahandi District	762.00	-	3484.00	
5	Girsul nala	Relendapali village, bhatli block	195.00	22.50	-	95.00
6	Jhaun Jore	Guthipali village, Attabira Block	162.00	35.85	-	100.00
7	Kuliary jore	Jaipur village, Bhatli Block	242.00	20.75	-	100.00
8	Dev mohini Nala	Badmal village , Rajbarasambhar Block	200.00	8.00	-	100.00
9	Kumri Nala	Fraserpur village , Rajbarasambhar Block	260.00	32.00	-	100.00

06. LAND UTILISATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURAL, HORTICULTURAL, MINING ETC.

Forest

Forest land use as per the concern authority is as follows															
Abstract of areas statement of Bargarh Forest Division															
SL.No.	Legal status of the Forest Blocks	Name of the Range												Total	
		Bargarh Range		Bhatli Range		Ghess Range		Padampur Range		Nrisinghanath Range		Paikmal Range		No. of the forest Block	Area in ha.
		No. of the forest Block	Area in ha.	No. of the forest Block	Area in ha.	No. of the forest Block	Area in ha.	No. of the forest Block	Area in ha.	No. of the forest Block	Area in ha.	No. of the forest Block	Area in ha.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
01	Reserve Forests (RF)	7	1064.92	3	15712.14	4	2749.39	10	1535.59	1	46.84	5	625.67	30	21734.55
02	Protected Forests (PF)	0	0.00	0	0.00	1	20.24	0	0.00	0	0.00	0	0.00	1	20.24
03	Proposed Reserve Forests (PRF)	0	0.00	0	0.00	9	11014.76	36	14207.41	10	10259.39	29	10140.58	84	45622.14
04	Un-Demarcated Protected Forests (UDPF)	0	0.00	0	0.00	4	24.38	4	113.47	0	0.00	0	0.00	8	137.85
05	Demarcated Protected Forests (DPF)	1	19.43	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	19.43
06	VF(Social Forestry Plantation Notified by F.D)	79	404.734	72	479.032	43	300.76	50	264.892	9	49.676	13	86.632	266	1585.726
		87	1489.084	75	16191.172	61	14109.53	100	16121.362	20	10355.906	47	10852.882	390	69119.936

Agriculture:

LAND UTILISATION PATTERN IN THE DISTRICT: AGRICULTURE

General land information of Bargarh District as follows:

Sl. No.				High	Medium	Low	
1	Geographical area		Ha.				583200
2	Cultivable area		Ha.				363624
3	Forest area		Ha.				71937
4	Misc. Trees & Grooves		Ha.				4557
5	Permanent Pasture		Ha.				19638
6	Culturable Waste		Ha.				14879
7	Land put to non agriculture Use		Ha.				23711
8	Net shown area	Kharif-2018	Ha.	173731	97685	77331	348747
9	Gross Crop area	2018-19	Ha.				478984
10	Cropping intensity	2018-19	Ha.				737
11	Irrigated area	Kharif-2018	Ha.				184053
12		Rabi-2018-19	Ha.				120929
13	Cultivated area		Ha.	173731	97685	77331	348747
14	Paddy area		Ha.	80172	95078	77331	252581
15	Non paddy area		Ha.	93559	2607	0	96166
16	DAO Circle						4
17	AAO Circle						24
18	AO/VAW circle						233

Horticulture:

Physical and Financial Progress made under MIDH(NHM)/NMMI/STATE PLAN/NMOOP/MGNREGA/RKVY FOR THE YEAR 2017-18

NAME OF THE DISTRICT : BARGARH

Sl. No.	Item	Unit	BARGARH				PADAMPUR				TOTAL DISTRICT			
			Physical		Financial		Physical		Financial		Physical		Financial	
			Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1. NHM (MIDH)														
	Establishment of new Gardens (Area Expansion)													
1	Plantation													
a	Banana TC - Without Integration	ha	10	14.83	3.07	4.56	7		2.15	0	17	14.83	5.22	4.56
b	Papaya - Without Integration	ha	3		0.68		3	3	0.68	0.680	6	3.00	1.36	0.68
c	High Density -Mango-Without Integration	ha	2	2	0.2	0.200	1	1	0.1	0.1	3	3.00	0.3	0.30
d	Mango (10m.x10m) normal spacing	ha	43	43	3.29	3.29	79	79	6.04	6.04	122	122.00	9.33	9.33
2	Vegetables (For maximum area of 2 ha per beneficiary)													
	Hybrid @Rs.50000/ha (40% of the cost in general)	ha	50	63.40	10	12.680	50		10		100		20	12.680
3	Flowers (For a maximum of 2 ha per beneficiary)													
	Loose flowers										0	0.00	0	0.000
a	S&M Category	ha	5	0.1	0.80	0.016	5		0.80		10	0.10	1.6	0.016
b	Other Category	ha	5	1.2	0.50	0.12	5		0.50		10	1.20	1	0.120
4	Training of Farmers													
a	Within the State @ Rs.1000/day/farmer including trasport	Nos.	100	100	1	1.000	100	100	1	1.000	200	200	2	2.000
b	Outside the State @ 5000/farmer	Nos.	20	20	1	1.000	18	18	0.9	0.900	38		1.9	1.900
5	Exposure Visit of Farmer													
a	Outside the State @ 5000/farmer	Nos.	10	10	0.5	0.500	10	10	0.5	0.500	20		1	1.000
b	Outside India @ Rs.4.0 lakh / participant	Nos.												
6	Training, study tour of technical staff/field functionaries with TA,													

	DA as admissible													
a	Within the State @Rs.300+Rs.400+500/day/staff		6		0.07		6		0.07		12		0.14	0.000
b	Study tour to progressive states / units (group of minimum 5 participants)	Group					2		1	0.7	2		1	0.700
7	INTEGRATED POST HARVEST MANAGEMENT										0			
a	Functional Pack House/On farm collection & Storage unit (9M x 6m)	Nos.	5	6	10	12	5	5	10	10	10		20	22.000
b	District Level @Q 2 days event	Nos.	1	1	2	2.00					1	1	2	2
c	Promotion of 25 Producers Organisations	Nos.	1		2		1		2		2		4	
2	STATE PLAN SCHEMES													
a	Sale of Planting Material	nos.	11620	11620	1.23430	1.23430	6218	6218	1.23430	1.23430	17838	17838	2.4686	2.46860
b	Single Line Trellis	nos	70	70	2.10	2.10	60	60	1.80	1.80000	130	130	3.9	3.90000
c	Onion Seed	Qtl	5	5	0.8050	0.8050	6	6	0.96000	0.96000	11	11	1.76500	1.76500
3	RKVY													
a	Potato	ha	30	5.28	0.79992	0.79992	10	6	0.90900	0.90900	40	11.28	1.70892	1.70892
4	Micro Irrigation													
a	Drip	ha.												
	Field Crop	ha.	10		3.795						10		3.795	
	Horticultural Crop	ha.	110	0.8	9.44						110	0.80	9.44	
b	Portable Sprinkler	ha.												
	Field Crop	ha.	390		25.195						390		25.195	
	Horticultural Crop	ha.	300	38.80	18.17						300	38.80	18.17	
5	NMOOP													
a	Oil Palm	ha.	400	202.49	48	17.22987	200	271.03	24	23.06194	600	473.52	72	
6	MGNREGA													
a	Mango	ha.					33	28	37.29		33	28	37.29	
b	Mango (Conv.)	ha.					60	60.5	123.1595		60	60.5	123.1595	
c	Oil Palm (Conv.)	ha.	34.5	30	26.2918		50	45.5	38.104		84.5	75.5	64.39576	

SCHEME WISE PHYSICAL & FINANCIAL TARGET AND ACHIEVEMENT OF HORTICULTURAL ACTIVITIES OF BARGARH DISTRICT 2018-19											
		BARGARH			PADAMPUR			DISTRICT TOTAL			REMARKS (% OF ACHIEVEMENT)
Sl. No	Item	Physical		Financial	Physical		Financial	Physical		Financial	
		Target	Achievement	Achievement	Target	Achievement	Achievement	Target	Achievement	Achievement	
	MIDH(NHM)										
A	Plantation										
i	Banana TC - Without Integration	20.00	12.1060	3.7213	3	3	0.92214	23.00	15.11	4.6434	66
ii	Papaya - Without Integration	0	0	0	5	5	1.12	5.00	5.00	1.1200	100
iii	Mango (10m.x10m) normal spacing	60	55.20	4.2228	50	53	4.01625	110.00	108.20	8.2391	98
iv	Pomogranet - Without Integration	5	5.00	0.72	5	4.5	0.648	10.00	9.50	1.3680	95
B	Special intervention for Top (Promotion of hybrid tomato cultivation) & hybrid Vegetablecultivation	100	106.90	21.06	100	100	20.00	200.00	206.90	41.0600	103
C	Plastic Mulching Max-2 ha/Benif (sqm)	30	27	4.32	20		0	50.00	27.00	4.3200	54
D	Shedenet House limited to 4000 sqm	0.10	0.02	0.36				0.10	0.02	0.3600	20
E	Horticulture Mechanisation									0.0000	
i	Tractor (Upto 20 PTO HP)	4	4	0	2	2	1.465	6.00	6.00	1.4650	100
F	High Tech Horticulture	3	0	0				3.00	0.00	0.0000	
	Poly House	4000 sqmt	under erection							0.0000	
G	Cold Storage	1	under progress							0.0000	
H	Training of Farmers									0.0000	

	Within the State @ Rs.1000/day/farmer including transport	100	100	1	225	225	2.25	325.00	325.00	3.2500	100
	Outside the State @ 5000/farmer	40	40	2	30	30	1.5	70.00	70.00	3.5000	100
I	Exposure Visit of Farmer									0.0000	
	Outside the State @ 5000/farmer	40	40	2	30	30	1.5	70.00	70.00	3.5000	100
J	INTEGRATED POST HARVEST MANAGEMENT									0.0000	
	Functional Pack House/On farm collection & Storage unit (9M x 6m)	8	4	8	16	14	28	24.00	18.00	36.0000	75
	Onino storage sructure	10	2	1.75	30	28	24.5	40.00	30.00	26.2500	75
K	District Level @Q 2 days event	1	1	2				1.00	1.00	2.0000	100
L	Other Activities (Vermibed Bed, Vermicompost, Zero energy cool chamber)									0.0000	
	MIDH(NHM) Total			51.1541			85.92139			137.0755	
M	NMOOP									0.0000	
	Plantation	350	349.71	34.557	350	370	38.71	700.00	719.71	73.2670	103
N	RKVY							0.00	0.00	0.0000	
	AHO Buildings/Farmdevelopment.	5	4	49	3	2	29.87	8.00	6.00	78.8700	75
	Potato	6	6.267	0.6267	5	4.8	0.48	11.00	11.07	1.1067	101
O	STATE PLAN SCHEMES									0.0000	
	Input subsidy on seed fertiliser, bio- fertiliser, insecticides, bio-pesticides etc									0.0000	
i	Sale of Planting Material	10100	10100	1.04100	6110	6110	0.33	16210.0 0	16210.0 0	1.3710	100
	Devt of Potato & Veg.									0.0000	
i	Subsidised sale of Onion Seeds(in Qtl)	5	3.76	2.256	2.5	2.5	1.5	7.50	6.26	3.7560	83
P	Micro Irrigation									0.0000	

i	Drip	250	400	265.5				250.00	400.00	265.5000	160
ii	Portable Sprinkler	400	900	89.90				400.00	900.00	89.9000	225
Q	MGNREGS									0.0000	
i	Mango and Maint.Mango Plantation.	85	76.80	18.38	350	373.5	91.87	435.00	450.30	110.2500	104
	Total			512.4148				248.68139		761.0962	97

SCHEME WISE PHYSICAL AND FINANCIAL TARGET AND ACHIEVEMENT OF HORTICULTURAL ACTIVITIES OF BARGARH DISTRICT 2019-20 (TILL DATE)														
Sl.No	Item	Unit	BARGARH				PADAMPUR				PADAMPUR			
			TAR		ACH		TAR		ACH		TAR		ACH	
			Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.
1	Establishment of New Garden													
I	Cost Intensive Crops (For a maximum area of 4 ha per beneficiary)													
II	Mango without integration @ Rs.25,500/ ha - maximum of Rs.0.30 lakh /ha (50% of cost) for meeting the expenditure on planting materials, and cost of material for INM/IPM, in 3 installments (60 : 20 : 20) - (10 x 10)	ha	70	5.355	60		100	7.65	100		170	13.005	160	
III	Banana TC - Without Integration @ Rs 1.25 / ha - maximum of Rs.0.50 lakh /ha (40% of cost) for meeting the expenditure on planting materials, and cost of material for INM/IPM, in 2 installments (75:25)	ha	20	6.148	under progress	under progress	10	3.07	under progress	under progress	30	9.2178	under progress	under progress
IV	Papaya - Without Integration @ Rs 60,000/ ha - maximum of Rs.0.30 lakh /ha (40% of cost)	ha	5	1.130	5.00		2	0.45	2		7	1.58	7	
V	Pomegranate - Without Integration @ Rs.48,000/ ha - maximum of Rs.0.30 lakh /ha (50% of cost) for meeting the expenditure on planting materials, and cost of material for INM/IPM, in 3 installments (60 : 20 : 20) - (5 x 5)	ha	5	0.720	5.000		10	1.440			15	2.16	5	

VI	High Density Mango without integration @ Rs.41,000/ ha - maximum of Rs.16,400/ha (40% of cost)	ha	10	0.980	3.000					10	0.98	3	
2	Vegetables (For maximum area of 2 ha per beneficiary)												
	i) Hybrid @Rs.50000/ha (40% of the cost in general)	ha	100	20.000	under progress	75	15.00	under progress	175	35	under progress		
3	Flowers (For a maximum of 2 ha per beneficiary)									0	0		
	Loose flowers									0	0		
I	S&M Category	ha	5	0.800	under progress	2	0.32	under progress	7	1.12	under progress		
II	Other Category	ha	5	0.500	under progress	4	0.40	under progress	9	0.9	under progress		
4	Promotion of Integrated Nutrient Management (INM)/ Integrated Pest Management (IPM)									0	0		
i)	Promotion of INM/IPM@Rs.4000/ha, Max-4ha/Beneficiary	ha	50	0.600	under progress	50	0.60	under progress	100	1.2	under progress		
5	Organic Farming									0	0		
I	Vermi Compost Units/ Organic Input Production Unit									0	0		
	Permanment Structure 30'x8'x2.5' @Rs.100000/Unit	Nos.	2.00	1.000	under progress	2.00	1.00	under progress	4	2	under progress		
6	Human Resource Development (HRD)									0	0		
I	Training of Farmers									0	0		
a	Within the State @ Rs.1000/day/farmer including trasport	Nos.	150	1.500	under progress	100	1.00	under progress	250	2.5	under progress		
b	Outside the State @ 5000/farmer	Nos.	50	2.500	under progress	50	2.50	under progress	100	5	under progress		
II	Exposure Visit of Farmer									0	0		
a	Outside the State @ 5000/farmer	Nos.	50	2.500	under progress	50	2.50	under progress	100	5	under progress		
7	INTEGRATED POST HARVEST MANAGEMENT									0	0		
c.1	Functional Pack House/On farm collection & Storage unit (9M x 6m)	Nos.	3	6.000	under progress	2	4	under progress	5	10	under progress		
c.4	Evaporative/Low energy cool chamber (8 MT) @ 5.0 lakh /unit	Nos.	2	5.000	under progress			under progress	2	5	under progress		
c.5	Preservation Unit (low cost) - New Units	Nos.	10	10.000	under progress	5	5.00	under progress	15	15	under progress		
c6	Low cost Onion Storage Structure (25 MT)	Nos.	35	30.625	under progress	35	30.63	under progress	70	61.255	under progress		
c.7	Pusa Zero energy Cool Chamber (100)	Nos.	30	0.600	under progress	25	0.50	under progress	55	1.1	under progress		

E	Special Interventions									0	0		
	Supply of Plastic Crates to Vegetable/ Fruit Growers	Ha	300	0.480	under progress	200	0.32	under progress	500	0.8	under progress		
F	Mission Management								0	0			
a	District Level @Q 2 days event	Nos.	1	2.000	under progress			under progress	1	2	under progress		
b	Exhibition & work shop for each MP both Lok Sabha & Rajya Sabha	Nos.	1	2.000	under progress			under progress	1	2	under progress		
2	STATE PLAN SCHEMES												
a	Sale of Planting Material	nos.	3100		3100	525		525	3625		3625		
5	NFSM-OP												
a	Oil Palm	ha.	130		12.42	200		49.07	330	0.00	61.49		

Mining:

Incidence of major mineral resources is not quite encouraging in the district. Besides, the district is rich in minor minerals like river sand, road metals, morrum, laterite stone etc. The total area considered for mining activity for all minerals shall be the mining area within the district.

07. SURFACE WATER AND GROUND WATER SCENARIO OF THE DISTRICT.

(Please refer Plate-III).

The general drainage pattern in the district is dendritic to sub-parallel. The Danta, Ong, Jonk, Jira river are main river in the district along with its tributaries. Hirakud Dam catchment area covers a part in north-east of Bargarh district.

Sl no	Name of the River	place of origin	Altitude at Origin (m)	Total Length in District (km)	area Drained (sq.km)	% area drained in the district
1	Danta river	Banjipali village, Bhatli block	184.00	54.00	-	100.00
2	Jeera River	Ramgiri hills of eastern ghat ,Gajapati district	-	83.50	-	70.00
3	Ong River	Beherapani village	457.00	59.00	5128.00	100.00
4	Jonk River	Khariar hills ,Kalahandi District	762.00	-	3484.00	
5	Girsul nala	Relendapali village, bhatli block	195.00	22.50	-	95.00
6	Jhaun Jore	Guthipali village, Attabira Block	162.00	35.85	-	100.00
7	Kuliary jore	Jaipur village, Bhatli Block	242.00	20.75	-	100.00
8	Dev mohini Nala	Badmal village , Rajbarasambhar Block	200.00	8.00	-	100.00
9	Kumri Nala	Fraserpur village Rajbarasambhar Block	260.00	32.00	-	100.00

08. RAINFALL OF THE DISTRICT AND CLIMATIC CONDITION.

Information on Rainfall from the year, 2012 to 2019 in Respect of Bargarh District.

Sl No	Month	District Normal rainfall in mm	2012	2013	2014	2015	2016	2017	2018	2019
			Average in mm							
1	January	12.5	59.5	5.5	0	0.42	5.50	6.97	0.0	1.5
2	February	19.1	0	17.08	30.75	5.08	12.25	0.0	2.72	13.71
3	March	22.0	0	0.0	23.75	6.88	15.00	11.83	0.18	38.79
4	April	20.0	4.40	29.37	1.42	74.42	4.75	0.0	9.54	21.83
5	May	25.6	1.66	10.50	98.17	6.75	30.04	16.80	66.08	14.5
6	June	205.6	321.83	198.17	94.00	255.67	125.32	260.57	145.53	135.53
7	July	397.2	275.66	396.33	670.67	259.58	218.97	263.00	471.18	412.72
8	August	374.4	487.16	221.58	462.25	274.42	284.32	244.83	397.34	449.07
9	September	222.6	254.44	177.75	294.1	119.46	292.11	115.57	174.23	429.42
10	October	52.8	80.91	186.17	33.4	0.83	56.60	63.26	7.38	64.48
11	November	10.4	9.83	0	0	0.00	0.20	1.12	0.0	
12	December	5.1	0	0	0.08	7.08	0.0	0.00	82.81	
	Total	1367.3	1495.39	1242.45	1708.34	1010.59	1024.97	983.95		

09. DETAILS OF THE MINING LEASES IN THE DISTRICT AS PER THE FOLLOWING FORMAT.

In this case only Stone/Road metal has been considered.

Sl.No.	Name of the Mineral	Name of the Lessee	Adress & Contact No. of lesee	Mining lease Grant Order No. & date	Area of Mining lease (in Hc)	Period of Mining lease (Initial)		Date of commencement of mining operation	Status (Working Non Working/Temp. working for despatch etc.)	Captive/Non captive	Obtained Environmental clearance (Y/N) if Y letter No. with date of grant of E.C	Location of the mining lease (Latitude & Longitude)
						From	To					
1	2	3	4	5	6	7	8	11	12	13	14	15
Name of the Tahasil:- Bheden												
1	Kesharipali Stone Quarry	Bimaladevi Sharma	At/PO Godhbaga, PS-Attabira 9438043220	L.No.446 28.02.15		16-17	20-21	19.04.16	Working	Captive	L.No.4474 17.08.15	Kesharipali, Kh.No.92, Plot NO.255 (Attached)
2	Bhalupali Stone Quarry	Basudev Dash	At/PO-Katapali, PS-Bargarh 9938822916	L.No.442 28.02.15		16-17	20-21	12.07.16	Working	Captive	L.No.756 4.2.16	Bhalupali Khata No.226, Plot No.877 (Attached)
3	Apamara Stone Quarry	Sachdanan da Chhanda	At-Apamara, po-Kubedega 9178950811	L.No.524 10.07.15		16-17	20-21	07.06.16	Working	Non Captive	L.No.- 20.07.15	Apamara, Khata No.319, Plot No.299, (Attached)
4	Jharapali Stone Quarry	Bhubaneswar Bag	-----	L.No.344 19.01.18					Non Working	Captive	L.No.1450 04.08.18	Jharapali Khata No.595, Plot No.911 (Attached)
5	Saraspali(A) Stone Quarry	-----	-----						Non Working	Captive		Saraspali, Khata NO.299, Plot No.252 (Attached)
6	Saraspali(B) Stone	-----	-----						Non Working	Captive		Saraspali, Khata No.299,

	Quarry											Plot No.92, (Attached)
7	Talmenda Stone Quarry	----	----						Non Working	Captive		Talmenda Khata No.666, Plot No.238,
8	Luhakhandi (A) Stone Quarry	----	----						Non Working	Captive		Luhakhandi (A) Kh.No.131 Plot No.165
9	Luhakhandi (B) Stone Quarry	----	----						Non Working	Captive		Luhakhandi Kh.No.131 Plot No.139
10	Achhandapali Stone Quarry	----	----						Non Working	Captive		Achhandapali Kh.No.212, Plot No.139
11	Gondturm Stone Quarry	----	----						Non Working			Gondturm Kh.No.202 Plot No.139

Name of the Tahasil:- Sohela

12	Birjupali-2 Stone Quarry	Rajesh Kumar Agrawal	AT/PO-Sohela Dist-Bargarh Mob. No.9437149353	2467 dt.20.07.2015		2015-16	2019-20	dt.16.06.2017	Working			Khata No. 66 Plot No.13
13	Birjupali-1 Stone Quarry	Bajjnath Agrawal	At/Po Pandakipali,Ps-Sohela Dist-Bargarh Mob-9437053808	2458 Dt.20.07.2015		2015-16	2019-20	dt.120.03.2017	Working		1199 Dt.25.06.2016	Khata No. 66Plot no. 838,840
14	Tandol Stone Quarry	Aswin Ku. Tripathy	At/Po-Khandahata Dist-BargarhMob No.9937074332	2464 Dt.20.07.2015		2015-16	2019-20	Dt.23.03.2017	Working		1211 Dt.25.06.2016	Khata No148 plot No.502

15	Lambarupali Stone Quarry	Kanhyalal Agrawal	At/Po-Sohela Dist-Bargarh Mob. No.9437057631	20.07.2015		2015-16	2019-20	Dt.16.02.2017	Working		1203 Dt.25.06.2016	Khata No. 112 Plot No.144
16	Ichhapali Stone Quarry	Binod Ku. Agrawal	At/Po-Sohela Dist-Bargarh	20.07.2015		2015-16	2019-20		Working		1197 Dt.25.06.2016	Khata No. 150 Plot no. 12,13
17	Kendamundi Stone Quarry	Arabinda Dash	At/Po-Kalapani Dist-Bargarh Mob No-9937140821	2431 Dt.20.07.2015		2015-16	2019-20		Working		1201 Dt.25.06.2016	Khata No. 195 Plot no. 413
18	Nuapali Stone Quarry								Non Working			Khata No. 55 (plot No.332 & 333)
19	Duanpali Stone Quarry								Non Working			Khata No. 162 Plot No.1107 & 1239
20	Chitakhai Stone Quarry								Non Working			Khata No. 157 Plot No.947
21	Tambimunda Stone Quarry								Non Working			Khata No. 69 plot No.27,31,163
22	Birihpali Stone Quarry								Non Working			Khata No. 167 Plot No.2028
23	Kendbahal Stone Quarry								Non Working			Khata No. 96 Plot No.867
Name of the Tahasil:-Bhatli												

24	Tejagola Stone Quarry	ANANDA BUDHIA	AT- GOPALPUR, BHATLI	239 DT.11.03.2015		2015-16	2019-20	29.11.16	Working	Non-Captive	1205 DT.25.06.2016	Khata No.158,159 Plot No-284/2106(p)
25	Bhojpuri Stone Quarry	SACHIN RABADIA	AT BARGARH W NO-01	552 DT 04.07.2015		2015-16	2019-20	09.09.2016	Working	Non-Captive	1207 DT.25.06.2016	Khata No.129 Plot No-870,872(P)
26	Nuagarh Stone Quarry								Non Working			Khata No-374 Plot No-1809,2075
27	Karlakhai Stone Quarry								Non Working			Khata No-99 Plot No-693
28	Mulbar Stone Quarry								Non Working			Khata No-270,134 Plot No-1555,698
29	Kendugudia Stone Quarry								Non Working			Khata No-110,111 Plot No-1140
30	Uhepali Stone Quarry								Non Working			Khata No-88 Plot No-78(P)
31	Halanda Stone Quarry								Non Working			Khata No-111 Plot No-353
32	Hafisar Stone Quarry								Non Working			Khata No-236 Plot No-1058
Name of the Tahasil:- Ambhabana												
31	Kumbho Stone Quarry	Gobinda Padhan S/o.Mahakur Padhan	At-Kendujharan PO-Kumbho PS-Ambabhona Dist-Bargarh State-Odisha Contact No.9178679214	Order No.1408 Dt.27.07.2015	4.840 Ha	2015-16	2019-20	Dt.25.05.2016	Working	Non – Captive	Letter No.699 Dt.30.1.2016	Kh No. 173 Plot No.876(P)
32	Ambabhona Stone Quarry											Khata No-195 Plot No-403
33	Ichhapur Stone Quarry											Khata No-190 Plot No-677
34	Kalmi Stone Quarry											Khata No-78 Plot No-555

35	Gangei Stone Quarry												Khata No-59 Plot No-392
Name of the Tahasil:-Gaisilet													
36	Tengenapali Stone quarry	Manoj Kumar Sahu	s/o- Birendra Ku Sahu, At- Buromunda, Tah/P.S-Gaisilet, Dist- Bargarh	5.33Ac		2015-16	2019-20		Working				Khata No-82 Plot No-100,102,108,371
37	Bhundubahal Stone quarry	Rajuram Agrawal	s/o- Kishorilal Agrawal, At- Nagaon(A), P.S- Loisingha, Dist- Bolangir	0.90Ac		2015-16	2019-20		Working				Khata No-118 Plot No-1156
38	Grindolmal Stone quarry	Siyaram Sharma	s/o- Gourisankar Sharma, At- /P.O/ P.S- Padampur, Dist- Bargarh	1.30Ac		2015-16	2019-20		Working				Khata No-55,57 Plot No-1,10
Name of the Tahasil:- Bargarh													
39	Birmal Stone Quarry	Chandra Sekhar Dash	Birmal			2015-16	2019-20		Working	Captive	895/DDT.6.5.16		Khata No-278 Plot No-1392(P)
40	Tora Stone Quarry	Srikanta Panda	Tora			2015-16	2019-20		Working	Captive	563/DT.30.01.16		Khata No-471 Plot No-199,239
41	Tora Stone Quarry- A	Sudanshubhusan Gartia	Tora			2015-16	2019-20		Working	Captive			Khata No-471 Plot No-53
42	Tora Stone Quarry- B	Srikanta Panda	Tora			2015-16	2019-20		Working	Captive	585/DT.30.01.16		Khata No-471 Plot No-189
43	Tora Stone Quarry- C	Rushi Padhan	Tora			2015-16	2019-20		Working	Captive			Khata No-471 Plot No-258
44	Gaisima Malipali Stone Quarry	Biranchinarayan Dash	W.NO14 BARGARH			2015-16	2019-20		Working	Captive	DT-03.03.2015		Khata No-650 Plot No-3558(P)
45	Gaisima Stone Quarry	Biranchinarayan Dash	W.NO14 BARGARH			2015-16	2019-20		Working	Captive			Khata No-650 Plot No-320

46	N.Sarsara Stone Quarry				0.154Ha							Khata No-1422 Plot No-4209(P)
47	Ulba Stone Quarry				1.076Ha							Khata No-98 Plot No-411,442
48	Bageibira Stone Quarry				0.242Ha							Khata No-105 Plot No-19
49	Dumerpali Stone Quarry				0.105Ha							Khata No-235 Plot No-115,165,166
50	Khuntpali Pudiatikra Stone Quarry	Mukunda Ratha	W No- 9, VSS Nagar		10.68Ac	2015-16	2019-20		Working			Khata No-976 Plot No-5461
51	Khuntpali Ganjiatikra Stone Quarry	Karunakar Sahu	Bargarh						Working			Khata No-976 Plot No-4500
52	Kantapali Stone Quarry				4.13Ac							Khata No-686 Plot No-5693
53	Bargaon Stone Quarry				1.35Ac							Khata No-785 Plot No-4129
54	Bargaon Stone Quarry				1.18Ac							Khata No-785 Plot No-17
55	Dhanger Stone Quarry											Khata No-1105 Plot No-8461,8471
56	Dhanger Stone Quarry											Khata No-1105 Plot No-8260,8276
57	Turunga Stone Quarry-C	Rushi Padhan	Khuntupa			2015-16	2019-20		Working			Khata No-471 Plot No-199(P), 258
59	Turunga Ubhababa Stone Quarry	Srikanta Panda	Khuntupa			2015-16	2019-20		Working			Khata No-471 Plot No-437
60	Turunga Stone Quarry-A	Srikanta Panda	Khuntupa			2015-16	2019-20		Working			Khata No-471 Plot No-199(P), 258
61	Turunga Ubhababa Stone Quarry-A	Sudhansu Bhushan Gartia	Bargarh			2015-16	2019-20		Working			
62	Talsrigida Stone Quarry											Khata No-912 Plot No-3361
63	Bausenpali Stone Quarry											Khata No-62 Plot No-37

Name of the Tahasil:- Jharbandh												
64	Laudidarha Stone Quarry	Ajay Kumar Sahu	Jharbandh	546/13.03.2015		2015-16	2019-20	11.03.2016	Working	Non-captive	SEIAA-709/30.01.2016	Khata No-145 Plot No-1131/2558
65	Sankri Stone Quarry	Sri Manish Kumar Agrawal	Jharbandh	1889/06.10.2018		2018-19	2022-23		Working	Non-captive	DEIAA-1030/12.06.2018	Khata No-238 Plot No-122
66	Turla Stone Quarry	Sri Arttrana Sahu	At/PO- Jamseth, PS/Tahasil- Paikmal	1326/14.08.2019		2018-19	2022-23	15.10.2019		Non-captive		Khata No-138 Plot No-40
Name of the Tahasil:- Attabira												
67	Bugbuga Stone quarry				Ac 1.50							K No 763 P 6220
68	Junani Stone quarry				Ac 0.96							Khata 48 Khata 444
69	Bhoipura Stone	Prakash Kumar Tripathy	Bhoipura	2443 dt 20.7.2018		15-16	19-20		Working	Non-captive	565 dt 20.1.2017	K 217 P 329 P 331 P 384
70	Jhilminda Stone quarry	Subash Ch Padhan	Kulunda	883 6.5.2016					working	Non captive	886 dt 6.5.2016	K 664 Plot 1296
71	Sorna Stone quarry	Ramesh Chandra Sahu	Jhilminda	3027 dt 6.12.2016		2015-16	2019-20		Working	Non-captive	590 dt 23.3.2017	Khata No-749 Plot No- 1931
Name of the Tahasil:- Bijepur												
72	Kharpel Nuapali Stone Quarry	Sunil Mohapatra	Bargarh	745/25.03.15	11.38Ac	2015-16	2019-20	16.11.2015	Working		4476/17.08.15	Khata No-108 Plot No- 186
73	Karle Stone Quarry	Hemsagar Sahu	Barpali	744/dtd.25.03.15	6.88Ac	2015-16	2019-20	25.01.16	Working		22/dtd.11.01.15	Khata No-58 Plot No-335
74	Pada-I Stone Quarry	Hemsagar Sahu	Barpali	749/25.03.15	6.18Ac	2015-16	2019-20	25.01.16	Working		10/dtd11.01.16	Khata No-249 Plot No- 2084
75	Rangamatia Stone Quarry				1.48Ac				Non-Working			Khata No-81 Plot No-439
76	Khandra Stone Quarry				1.26Ac				Non-Working			Khata No-86 Plot No- 265

77	Darlipali Stone Quarry				0.38Ac					Non-Working			Khata No-74 Plot No-129
78			Bijepur										
79	Kurlamunda Stone Quarry	Jitendra Meher	Bhoipali		2.50Ac	2017-18	2021-22						Khata No-58 Plot No-327
Name of the Tahasil:-Barpali													
80	Barangapali Stone Quarry												Khata No-474 Plot No-458,472, 612,752,1039, 1043,1045,1053, 1219,1233,1315, 1365,1427,1475
81	Khairpali Stone Quarry												Khata No-117 Plot No-906,934, 936,946,948, 1063,1065,1074, 1076,1077,1086, 1088,1096,1067
81	Dhangerpali Stone Quarry												Khata No-150 Plot No-1127, 1131,1132,1139, 1167,1191,1193
83	Bahiapadar Stone Quarry	Janmajaya Das	Bahiapadar	02/10.03.2015		2015-16	2019-20	22.07.16	Working	Non-captive			Khata No-128 Plot No-3,47,45, 299,300,333
84	Chikinipali Stone Quarry	Jagannath Parida	Barpali	02/03.03.2015		2015-16	2019-20	24.10.17	Working	Non-captive			Khata No-148 Plot No-478
85	Gopaipali Stone Quarry												Khata No-102 Plot No-120,122, 125
86	Jhulopali Stone Quarry												Khata No-52 Plot No-80,86, 423
87	Julat Stone Quarry												Khata No-228 Plot No-

												595,1080,1481, 1290/1672
Name of the Tahasil:-Padampur												
88	Luhakhan Stone Quarry-A	SK. Md Wajid	Padampur		6.39Ha	2015-16	2019-20	08-09-2017	Non-Working	Non-captive	Lt-2263 30-11-2016	Khata No-114 Plot No-580
89	Luhakhan Stone Quarry-B	SK. Md Wajid	Padampur		0.41Ha	2015-16	2019-20		Non-Working	Non-captive	Lt-4563 17-08-2015	Khata No-114 Plot No-530/718
90	Fulmatipur Stone Quarry-C	Ishwardatta Meher	Padampur		11.31 Ha	2015-16	2019-20	01-02-2016	Working	Non-captive	Lt-322 14-01-2016	Khata No-97 Plot No-584
91	Raibahapur pur Stone Quarry	Kalicharan Sharma	Padampur		1.255 Ha	2015-16	2019-20	15-12-2015	Working	Non-captive	Lt-4178 17-08-2015	Khata No-75 Plot No-270
92	Garvanakhol Stone Quarry	Kashiram Agarwal	Padampur		2.14 Ha	2015-16	2019-20	01-02-2016	Working	Non-captive	Lt-338 14-01-2016	Khata No-9 Plot No-36, 51
93	Bishopali Stone Quarry	Md Jawed	Padampur		1.03 Ha	2015-16	2019-20	4-01-2016	Working	Non-captive	Lt-4535 17-08-2015	Khata No-167 Plot No-688,713
94	Jhumabhatta Stone Quarry	Bholanath Meher	Salegudi		0.20 ha	2015-16	2019-20	31-03-2016	Non-Working	Non-captive	Lt-4548 17-08-2015	Khata No-190 Plot No-574
Name of the Tahasil:-Paikmal												
95	Chuhapali-II Stone Quarry	Sumit Ku. Agrawal	Paikmal 9938119999	2/2015 Dt.16.3.2015		2015-16	2019-20		Non-Working	Non-captive	4180 Dt.17.08.2015	Kh. No.87 Plot No.265
96	Bheruamunda Stone Quarry	Laxman Ku. Sahu	Jamseth	1/2015 Dt.16.2.2015		2015-16	2019-20		Working	Non-captive	4182 Dt.17.08.2015	Kh. No.86 Plot No.146
97	Chuhapali- I Stone Quarry											Kh. No.87 Plot No.360

98	Maharanimeripur Stone Quarry											Kh. No.126 Plot NO.403
99	Kharamal Stone Quarry											Kh. No.63 Plot No.267
100	Loudmal Stone Quarry											Kh. No.42 Plot No.210

10. DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS

Revenue collected for **Stone/Road metal**.

Sl. No	Name of the Tahasil	Name of the Source	Revenue Collected in Last Three Years (In Rs.)		
			2016-17	2017-18	2018-19
1	Attabira	Sorna Stone	0	40000	70000
		Bhoipura Stone	0	42000	50000
		Jhilminda Stone	0	0	57000
		Sorna Stone	0	0	0
2	Bargarh	Birmal Stone	62927	66885	0
		Gaisima Malipali Stone	0	64756	114902
		Gaisima Rajadungri Stone	0	56067	94633
3	Bheden	Keshaipali Stone	175765/-	244846/-	189225/-
		Bhalupali Stone	175765/-	244846/-	189225/-
		Apamara Stone	654322/-	470000/-	500000/-
		Jharapali Stone	65889/-	0	0
4	Barpali	Bahiapadar	0	22000	25000
		Chikinipali	0	40000	0
5	Bhatli	Tejagola Stone	20655	67402	0
		Bhojpuri Stone	240630	215966	220590
6	Ambabhona	Kumbho Road Metal	104000	101600	132000
7	Sohela	Birjupali Stone	169942	301056	167732
		Birjupali-1	186394	166800	187200
		Tandol Stone	176371	97995	117595
		Lambarupali Stone	89650	85056	78624
		Ichhapali Stone	104996	85402	95847
		Kendamundi Stone	205854	186260	219024
8	Padampur	Luhakhan Stone Quarry- A	0	56000	56000
		Luhakhan Stone Quarry- B	0	0	0
		Fulmatipur Stone Quarry- C	133000	140000	147000
		Raibahadurpur Stone Quarry-	61600	67200	78400
		Garvanakhol Stone Quarry	132160	132160	132160
		Bishopali Stone Quarry	75600	72800	61600
		Dhumabhata Stone Quarry	58800	0	0
9	Bijepur	Kh Nuapali Stone	328565	328565	328565

		Karle Stone	96508	96508	96508
		Pada Stone	118438	118438	118438
		Kurlamunda Stone	0	45701	182804
10	Paikmal	Chuhapali-II Stone	89002	217184	0
		Bheruamunda Stone	174901	142329	0
11	Jharbandh	Laudidarha Stone	76330	122690	25610
		Sankri Stone	0	0	32940
		Turla Stone	0	0	31502

11. DETAILS OF PRODUCTION OF MINOR MINERAL IN LAST THREE YEARS.

Production of **Stone/Road metal**.

SI No	Name of the Tahasil	Name of the Source	Production of Stone in Last Three Years (In Cum)		
			2016-17	2017-18	2018-19
1	Attabira	Sorna Stone	691.6	704.9	718.2
		Bhoipura Stone	8.01	8.74	94.6
		Jhilminda Stone	495	585	678
		Sorna Stone	190	210	230
2	Bargarh	Birmal Stone	0	0	0
		Gaisima Malipali Stone	360	396	450
		Gaisima Rajadungri Stone	270	324	360
3	Bheden	Keshaipali Stone	1150	1150	1150
		Bhalupali Stone	3000	3000	3000
		Apamara Stone	300	300	300
		Jharapali Stone	190	190	190
4	Bhatli	Tejagola Stone	30	30	30
		Bhojpuri Stone	1334	1300	1330
5	Ambabhona	Kumbho Road Metal	550	625	700
6	Sohela	Birjupali Stone	1075	1075	1075
		Birjupali-I	1200	1200	1200
		Tandol Stone	705	705	705
		Lambarupali Stone	504	504	504
		Ichhapali Stone	614	614	614
		Kendamundi Stone	1340	1340	1340
7	Bijepur	Kh Nuapali Stone	1550	1650	1600
		Karle Stone	700	700	700
		Pada Stone	700	700	700
		Kurlamunda Stone	0	1020	1020
8	Paikmal	Chuhapali-II Stone	750	780	780
		Bheruamunda	458	943	528

		Stone			
9	Padampur	Luhakhan Stone Quarry- A	0	400	400
		Luhakhan Stone Quarry- B	480	480	480
		Fulmatipur Stone Quarry- C	950	1000	1050
		Raibahadurpur Stone Quarry-	440	480	560
		Garvanakhol Stone Quarry	944	944	944
		Bishopali Stone Quarry	540	520	440
		Dhumabhata Stone Quarry	420	450	450
10	Jharbandh	Laudidarha Stone	605	630	655
		Sankri Stone	0	0	915
		Turla Stone	0	0	851.4

12. MINERAL MAP OF THE DISTRICT.

Please refer Plate-IV.

13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT.

In this case only **Stone/Road metal** has been considered.

Sl. No	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted (ha.)	Validity of LOI	Use (Captive/ Non-captive)	Location of the Mining lease (Latitude & Longitude)
1	2	3	4	5	6	7	8	9
Bheden Tahasil								
1	Jharapali Stone	Bhubaneswar Bag	At/PO- Jharapali PS- Bheden 9937190422	L.No. 344 19.01.18	4.85 HA	5years	Non-captive	Khata No.595 Plot No.911
Bijepur Tahasil								
2	Pada-II Stone Quarry	Kunu Meher			3.84Ac	5years	Non-captive	Khata No-249 Plot No- 2163
Barpali Tahasil								
	Jhulopali Stone Quarry	Hemsagar Sahu S/o- Kalia Sahu	At- Bandhapali PS/Tah- Barpali Dist- Bargarh			5years	Non-captive	Khata No.52 Plot No.80 86 423
	Dhangerpali Stone Quarry	Surendra Kumar Dash S/o- Arjun Dash	At-Barpali W.No.1 PS/Tah- Barpali Dist- Bargarh			5years	Non-captive	Khata No.150 Plot No.1127 1131 1132 1139 1167 1191 1193
	Khairpali Stone Quarry	Tosabanta Sahu S/o- Netrananda Sahu	At-Bargarh W.No.4 PS/Tah-			5years	Non-captive	Khata No.143 Plot No.1394 1573

			Bargarh Dist- Bargarh					1571 1579 1581 1584 1577 1619
Padampur Tahasil								
	Ledhrapali stone quarry	Iswardatta Meher	Padampur		0.23Ac	5years	Non- captve	Khata No-73 Plot No-569
	Bishopali Stone Quarry	Abhishek Ratha	Padampur		1.86Ac	5years	Non- captve	Khata No-167 Plot No-833,945 950
	Ghanamal Stone Quarry	Md. Jawed	Padampur		6.54Ac	5years	Non- captve	Khata No-182 Plot No-182,592/1259
Paikmal Tahasil								
	Maharanimeripur				Ac. 0.50	5years	Non- captve	Kh. No.126 Plot NO.403
	Kharamal				Ac. 0.70	5years	Non- captve	Kh. No.63 Plot No.267
	Loudmal	Sumit Ku. Agrawal	Paikmal 9938119999		Ac. 2.50	5years	Non- captve	Kh. No.42 Plot No.210
	Chuhapali-I				Ac. 1.32	5years	Non- captve	Kh. No.87 Plot No.360

14. TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT.

Total Mineral Reserve given as per the evaluation done by concern Geology department in the following table,

Name of Tahasil	Sl.No.	Name of the quarry	Area in Acre	Long.	Lat.	Resource in Cum	Remarks
BARGARH	1	Khutpali Putia Tikira Stone Quarry -E	5.33	83°37'00.6"	21°17'11.40"	322920	Potential
	2	Khuta pali Ganjia Tikra stone quarry	3.37	83°36'18"	21°16'48.8"	155700	Potential
	3	Birmal stone quarry	0.3	83°33'21.7"	21°15'22.8"	NIL	Extinct
	4	Turunga - Ubhababa stone quarry-B	5.38	83°37'31.6"	21°15'39.7"	117920	Potential
	5	Turunga stone quarry-A	3.32	83°37'26.5"	21°15'25"	60040	Potential
	6	Turunga stone quarry-C	6.2	83°37'20.7"	21°15'36.1"	140000	Potential
	7	Gaisima Raja Dungri stone quarry	2.11	83°38'25.8"	21°16'09.7"	43768	Potential
	8	Gaisima mali stone quarry	2.7	83°39'08.5"	21°15'55.8"	36040	Potential
	9	Tora stone quarry	9.5	83°39'27.1"	21°19'24"	273300	Potential
	10	Turunga Ubhababa stone quarry -A	5.99	83°36'52.6"	21°15'38.85"	174240	Potential
ATTABIRA	11	Bhoipali stone quarry	2.12	83°47'45.1"	21°22'25.4"	102000	Potential
	12	Sorna Stone quarry	12	83°49'48.1"	21°16'51.4"	509250	Potential
	13	Sorna Stone quarry	3.24	83°49'42.8"	21°16'46.2"	137550	Potential
	14	Jhilimunda stone quarry	2	83°48'57.2"	21°18'27.6"	58248	Potential
SOHELA	15	Bandhen bahal stone quarry	1.6	83°17'17.2"	21°06'40.8"	90000	Potential
	16	Nuapali stone quarry	1.53	83°18'58"	21°09'55.3"	12000	Potential
	17	Birjhupali stone quarry	1.34	83°20'1.8"	21°18'3.3"	30240	Potential
	18	Birjhupalli stone quarry	2.33	83°21'10.4"	21°18'2.1"	40320	Potential

	19	Kendamundi stone quarry	0.57	83°21'17.4"	21°19'4.8"	NIL	Extinct
	20	Lambrupali stone quarry	0.6	83°22'2.5"	21°17'12.54"	8640	Potential
	21	Tandol stone quarry	10.08	83°24'19.9"	21°13'10"	117360	Potential
	22	lcchapali stone quarry	0.79	83°22'53.6"	21°17'3.1"	13440	Potential
BIJEPUR	23	Khaprel Nuapali stone quarry	11.38	83°19'47.6"	21°09'38.7"	447000	Potential
	24	Karle stone quarry	2.88	83°27'20.4"	21°09'14.9"	30720	Potential
	25	Charpali stone quarry	1.5	83°27'32.4"	21°08'53.2"	25200	Potential
	26	Kurla munda stone quarry	2.5	83°26'28.2"	21°07'49.1"	16560	Potential
	27	Pada stone quarry - 2	3.84	83°26'33.8"	21°10'19.8"	57600	Potential
	28	Pada stone quarry - 3	6.18	83°26'24.4"	21°10'43.3"	175000	Potential
GAISILAT	29	Bhundubahal stone quarry	0.90 Dc	83°18'54.9"	21°02'16.7"	12000	Potential
	30	Grindalmal stone quarry	1.3	83°14'31.1"	20°58'33.2"	NIL	Extinct
	31	Tengnapali stone quarry	5.33	83°20'03.9"	20°55'45"	77400	Potential
BHEDEN	32	Kesaripali stone quarry	5.36	83°50'11"	21°01'8.9"	345200	Potential
	33	Bhalupali stone quarry	5.82	83°50'54.8"	21°09'04.7"	317400	Potential
	34	Apamara stone quarry	5.1	83°44'55.3"	21°13'27.5"	312000	Potential
PADAMPUR	35	Luhakhan stone quarry A	15.8	83°09'31.3"	20°56'9.7"	Nil	Not feasible
	36	Luhakhan stone quarry B	1	83°09'1.8"	20°56'25.7"	Nil	Not feasible
	37	Fulmati stone quarry C	27.97	83°02'08.8"	20°52'49.7"	1260000	Potential
	38	Raibahadurpur Stone Quarry	3.1	83°01'24.6"	20°54'11"	56000	Potential
	39	Dhumabhata Stone Quarry	0.51	83°01'25.9"	20°58'17.1"		Potential
	40	Bishopali Stone Quarry	2.57	83°10'52.52"	21°02'3.47"	NIL	Not feasible
	41	Garvanakhol Stone Quarry	5.31	83°08'06.3"	20°55'18.2"	180000	Potential
PAIKMAL	42	Mahranimeripur stone quarry	12.3	82°48'51"	20°55'30.0"	Nil	Not feasible
	43	Chuhapali stone quarry 1	1.32	82°49'07"	20°58'59"	Nil	Not feasible
	44	Chuhapali stone quarry 2	5.5	82°49'07"	20°58'59"	153000	Potential

	45	Bheruamunda Stone Quarry	1.2	82°43'36"	20°49'41"	NII	Not feasable
JHARBANDH	46	Sankri stone quarry A	3.26	82°46'24"	20°58'02"	96000	Potential
	47	Turla Stone Quarry	7.5	82°47'34"	20°03'28"	160000	Potential
	48	Laudidharha stone quarry	2.5	82°50'51"	21°08'38"	103250	Potential
BARPALI	49	Chikinipali stone quarry A	2.62	83°32'16"	21°13'21"	86720	Potential
	50	Gopepali Stone Quarry	5.34	83°32'29"	21°12'37"	343800	Potential
	51	Baghapadar stone quarry	2.62			168400	Potential
AMBHOBANA	52	Khumbo stone quarry	11.96	83°21'11.3"	21°30'13"	765440	Potential
	53	Ichhapur stone quarry B	3.17	83°25'40"	21°32'32.7"	202880	Potential
	54	Sambalpur stone quarry C	7			392000	Potential
	55	Kutharpali Stone Quarry	7			392000	Potential
	56	Kalmi Stone Quarry	4.8	83°01'25.9"	20°58'17.1"	268800	Potential
BHATLI	1	Bhojpuri stone quarry	3.59	83°30'00"	21°22'8.5"	272096	Potential
	2	Tejagola Stone Quarry	7.7	83°34'46.22"	21°26'28.02"	117800	Potential
TOTAL						9277242 Cum	

15. QUALITY /GRADE OF MINERAL AVAILABLE IN THE DISTRICT.

We know Bargarh district is junction part of Eastern Ghat Province & Bastar Province hence the area is rich in hilly terrains composed of various meta-igneous group of rocks like Granite gneiss, Calc-granite, charnokite, Khondalite etc. the colour of the rocks exposures within the district varies from light grey to dark grey, grain size of the rocks varies from medium to coarse. The rocks are normally composed of mainly feldspar, quartz, and mild amphibole, pyroxene, olivine, biotite etc all these physical properties signify its good cementing property and higher resistance which indicate its suitability for construction stone as the source areas have numerous fractures & joints. A very few areas are there which are devoid of fractures & joints, those can be suggested as decorative stone.

16. USE OF MINERAL.

Stone Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of road metal, to provide a sturdy base for roads. Only the harder more resilient rocks can be employed for most road surfacing requirements. Apart from road usage, substantial amounts are mixed (coarse gravel sized stone with finer stone particles or sand) with cement and water to make concrete. This may be carried out at the quarry or materials supplied to truck-mixers (for mixing en route) or to remote plants. An important local 'downstream' industry is that of concrete product (blocks, pipes, kerbs, pavers, etc). Not only do these produce 'added value' to the raw aggregate, they often make use of 'fines' which are a by-product of general aggregate processing, and without this market would often have to be dumped.

17. DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS.

As per the data provided by the concerned Tehsils the production or supply of the stone/road metal in the district is as follows,

2016-17	2017-18	2018-19
22543.61	24958.64	26742.2

Out of the total production about 90% of the supply is utilized in government works, while rest is consumed by the private purposes. The certainty of the exact demand in the district depends upon various Govt projects & schemes etc, hence quite not possible to quantify the exact demand. Certainly there is an unavoidable gap between the demand and supply of road metal/stone in the district, hence to balance the demand–supply gap a few number of stone quarries have been proposed in certain areas.

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT.

Please refer Plate-V

19. DETAILS OF THE AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ. NUMBER OF MINING LEASES, LOCATION (LATITUDE AND LONGITUDE).

Quarries existing within 500m radius are considered as cluster of Mining Leases as per the MoEF guide lines.

20. DETAILS OF ECO-SENSITIVE AREA, IF ANY, IN THE DISTRICT.

Eco-Sensitive Zones or ecologically fragile areas are notified by the Ministry of Environment, Forest and climate Change, Government of India around protected areas, National Parks and Wildlife sanctuaries. There is one Wildlife sanctuary present in the District i.e. Debrigarh Wild Life Santuary.

21.IMPACT ON THE ENVIRONMENT (AIR, WATER, NOISE, SOIL, FLORA & FAUNA, LAND USE, AGRICULTURE, FOREST ETC.) DUE TO MINING ACTIVITY.

Mining is the extraction of minerals and other geological materials of economic value from deposits on the Earth. Mining adversely affects the environment by inducing loss of biodiversity, soil erosion, and contamination of surface water, groundwater, and soil. Mining can also trigger the formation of sinkholes. The leakage of chemicals from mining sites can also have detrimental effects on the health of the population living at or around the mining site.

As mentioned above, mining activities can harm the environment in several ways.

Mining of major minerals in the Division is not a common feature, though forests areas are rich in destructive to forests. Mainly stone quarry are going on in the District. Several serious environmental impacts related to quarrying activities on and near the river, such as vibration, land degradation, land subsidence and landslides, water

pollution and air pollution, will lead to health related problems and loss of biodiversity.

Impacts on Air

Air quality is adversely affected by mining operations. Unrefined materials are released when mineral deposits are exposed on the surface through mining. Wind erosion and nearby vehicular traffic cause such materials to become airborne. Lead, arsenic, cadmium, and other toxic elements are often present in such particles. These pollutants can damage the health of people living near the mining site. Diseases of the respiratory system and allergies can be triggered by the inhalation of such airborne particles.

Impacts on Water

Mining also causes water pollution which includes metal contamination, increased sediment levels in streams, and acid mine drainage. Pollutants released from processing plants, tailing ponds, underground mines, waste-disposal areas, active or abandoned surface or haulage roads, etc., act as the top sources of water pollution. Sediments released through soil erosion cause siltation or the smothering of stream beds. It adversely impacts irrigation, swimming, fishing, domestic water supply, and other activities dependent on such water bodies.

High concentrations of toxic chemicals in water bodies pose a survival threat to aquatic flora and fauna and terrestrial species dependent on them for food. The acidic water released from metal mines or coal mines also drains into surface water or seeps below ground to acidify groundwater. The loss of normal pH of water can have disastrous effects on life sustained by such water.

Noise impacts

Noise pollution mainly due to operation of machineries , occasional plying of machineries and drilling & blasting. These actives will create

noise pollution in the surrounding area that affects the life of the nearby habitats.

Impact on Soil

Soil disruptions can contribute to the deterioration of the area's flora and fauna. There is also a huge possibility that many of the surface features that were present before mining activities cannot be replaced after the process has ended. The removal of soil layers and deep underground digging can destabilize the ground which threatens the future of roads and buildings in the area.

Impacts on Flora & Fauna

Often, the worst effects of mining activities are observed after the mining process has ceased. The destruction or drastic modification of the pre-mined landscape can have a catastrophic impact on the biodiversity of that area. Mining leads to a massive habitat loss for a diversity of flora and fauna ranging from soil microorganisms to large mammals. Endemic species are most severely affected since even the slightest disruptions in their habitat can result in extinction or put them at high risk of being wiped out. Toxins released through mining can wipe out entire populations of sensitive species.

22. REMEDIAL MEASURES TO MITIGATE THE IMPACT OF MINING ON THE ENVIRONMENT.

The major potential environmental impacts associated with mining and associated mineral processing operations are related to erosion-prone landscapes, soil and water quality, and air quality. These potential impacts are recognized and addressed in current mining operations as well as in some former mining operations by reclaiming areas of physical disturbance to prevent erosion, stabilizing soils containing metals or chemicals to prevent unwanted metal releases into the

environment, preventing and/or treating water contamination, and controlling air emissions.

Mine closure and a number of activities to mitigate the impacts of mining are an integral part of all mine planning and mineral development from the discovery phase through to closure:

Reclamation

Soil treatment

Water treatment

Preventing acid rock drainage

Controlling gas emissions

Air

Mitigation measures suggested for air pollution controls are to be based on the baseline ambient air quality of the project/cluster area and would include measures such as:

- Dust generation shall be reduced by using sharp teeth of shovels.
- Wet drilling shall be carried out to contain the dust particles.
- Controlled blasting techniques shall be adopted.
- Water sprinkling on haul roads, service roads and overburden dumps will help in reducing considerable dust pollution.
- Proper and regular maintenance of mining equipment's have to be undertaken.
- Transport of materials in trucks are to be covered with tarpaulin.
- The mine pit water can be utilized for dust suppression in and around mine area.
- Information on wind direction and meteorology are to be considered during planning, so that pollutants, which cannot be fully suppressed by engineering techniques, will be prevented from reaching the nearby agricultural land, if any.

- Comprehensive greenbelt around overburden dumps and periphery of the mining projects/clusters has to be carried out to reduce to fugitive dust transmission from the project area in order to create clean & healthy environment.

Water

- Construction of garland drains and settling tanks to divert surface run –off of the mining area to the natural drainage.
- Construction of checks dams/ gully plugs at strategic places to arrest silt wash off from broken up area.
- Retaining walls with weep hole are to be constructed around the mine boundaries to arrest silt wash off.
- The mined out pits shall be converted in to the water reservoir at the end of mine life. This will help in recharging ground water table by acting as a water harvesting structure.
- Periodic analysis of mine pit water and ground water quality in nearby villages are to be undertaken.
- Domestic sewage from site office & urinals/latrines provided within ML/QL areas is to be discharged in septic tank followed by soak pits.

Noise

- Periodic maintenance of machineries, equipments shall be ensured to keep the noise generated within acceptable limit.
- Development of thick green belt around mining/cluster area, haul roads to reduce the noise.
- Provision of earplugs to workers exposed to high noise generating activities like blasting, excavation site etc. Worker and operators at work sites will be provided with earmuffs.
- Conducting periodical medical checkup of all workers for any noise related health problems.

- Proper training to personnel to create awareness about adverse noise related effects.
- Periodic noise monitoring at locations within the mining area and nearby habitations to assess efficacy of adopted control measures.
- During blasting optimum spacing, burden and charging of holes will be made under the supervision of competent qualified mines foreman, mate etc.

Biological Environment

- Development of green belt/gap filling saplings in the safety barrier left around the quarry area/ cluster area.
- Carrying out thick greenbelt with local flora species predominantly with long canopy laves on the inactive mined out upper benches.
- Development of dense poly culture plantation using local floral species in the mining areas at conceptual stage if the mine is not continued much below the general ground level.
- Adoption of suitable air pollution control measures as suggested above.
- Transport of materials in trucks covered with tarpaulin.

23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN).

Mine reclamation is the process of restoring land that has been mined to a natural or economically usable state. Although the process of mine reclamation occurs once mining is completed, the planning of mine reclamation activities occurs prior to a mine being permitted or started. Mine reclamation creates useful landscapes that meet a variety of goals ranging from the restoration of productive ecosystems to the creation of industrial and municipal resources. Modern mine

reclamation minimizes and mitigates the environmental effects of mining.

In Bargarh district no stone Quarry has been reported as exhausted of mineral, hence no reclamation approach has been implemented in present date. Mainly two types of reclamation proposal are normally proposed i.e. Firstly Back filling of the exhausted mine by mine generated waste and capping of top soil for forest plantation and growth. Secondly proper fencing of quarried area and can be developed as water reservoir, fishery development or tourist attraction points after the life of the mine.

24. RISK ASSESSMENT & DISASTER MANAGEMENT PLAN.

Risk assessment is the determination of quantitative or qualitative value of risk related to a concrete situation and a recognized threat. Activities requiring assessment of risk due to occurrence of most probable instances of hazard and accident are both onsite and off-site.

It must be realized that any incident may develop into a major emergency even with the best safety measures and programmes in any industry. Hence, an Emergency procedure will be planned properly and documented to help in reducing time loss, chaos and confusion at the hour of need by assigning person who will engage in meeting emergency smoothly and effectively. Any accident which has potential to develop into a major emergency can threaten large number of person or large area of the industries on the site may affect safety of the public, property and environment. Hence, it is absolutely essential that emergency procedures will be properly planned and documented.

Stone quarry mining is an opencast practice in the district, hardly cause disastrous situation except bench failure if the slope of the benches are

not well maintained and height of the benches are exceptionally high not executed as per the approved Plan. Any disastrous situation raised in the mining area must be reported to the concern authorities as soon as possible.

25. DETAILS OF THE OCCUPATIONAL HEALTH ISSUES IN THE DISTRICT. (LAST FIVE-YEAR DATA OF NUMBER OF PATIENTS OF SILICOSIS & TUBERCULOSIS IS ALSO NEEDS TO BE SUBMITTED).

As per the data provided by CDMO, Bargarh *Tuberculosis* patients cases of last 5 years is as follows;

Sl No	Year	TB Cases
01	2014	1624
02	2015	1626
03	2016	1512
04	2017	1446
05	2018	1519
06	2019	1415(1 st January to 31 st October)

No case of Silicosis recorded in the district.

26. PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALREADY GRANTED IN THE DISTRICT.

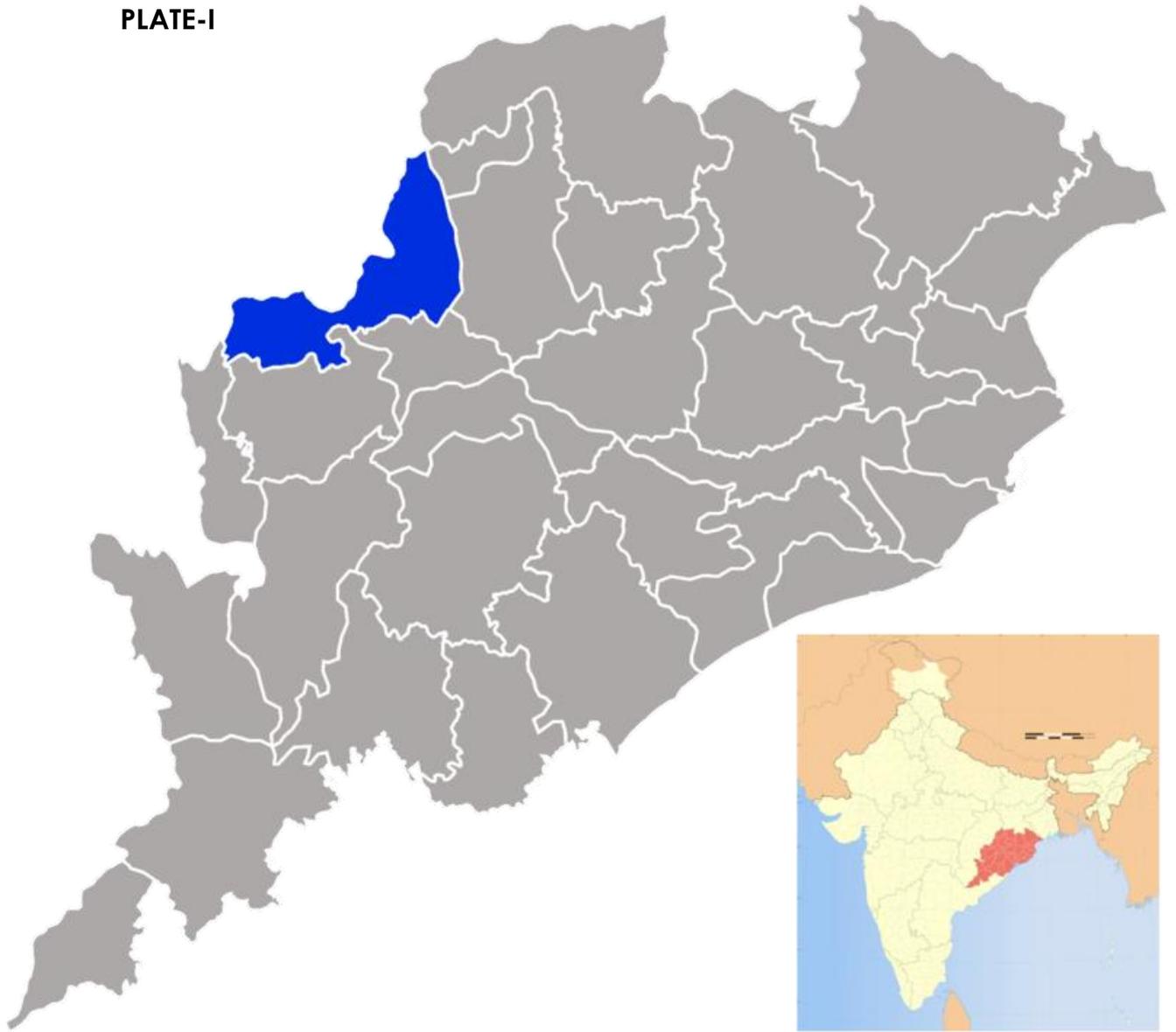
As the stone quarry lease within the district are non-forest lands rather revenue lands. As per the guidelines prescribed by OMMCR-2016 a safety zone of 7.5m has been considered for all quarry leases all along the inside of boundary line. Plantation proposal has been usually stated in the approved Mining Plans for all quarry leases. Saplings of local plants has been proposed to be planted in the safety zone area of quarries.

Forest Division could not take up the Plantation works in mining areas due to non-receipt of any fund for the same. But large numbers of plantations have been raised under different schemes in and outside the Reserved Forest and Proposed Reserved Forest.

27. ANY OTHER INFORMATION.

Bargarh district has a glorious rich cultural past, rich in agriculture. It is at the northern marginal area of Eastern Ghat Province & Bastar province having potential of several valuable minerals like Quartzite, Limestone, gem stones, dimension stones, ordinary stones, sand etc. Systematic & scientific application of technologies in all fields will definitely enhance the livelihood of the common man of the area and the district can contribute a major part in thriving of the state as well as the nation.

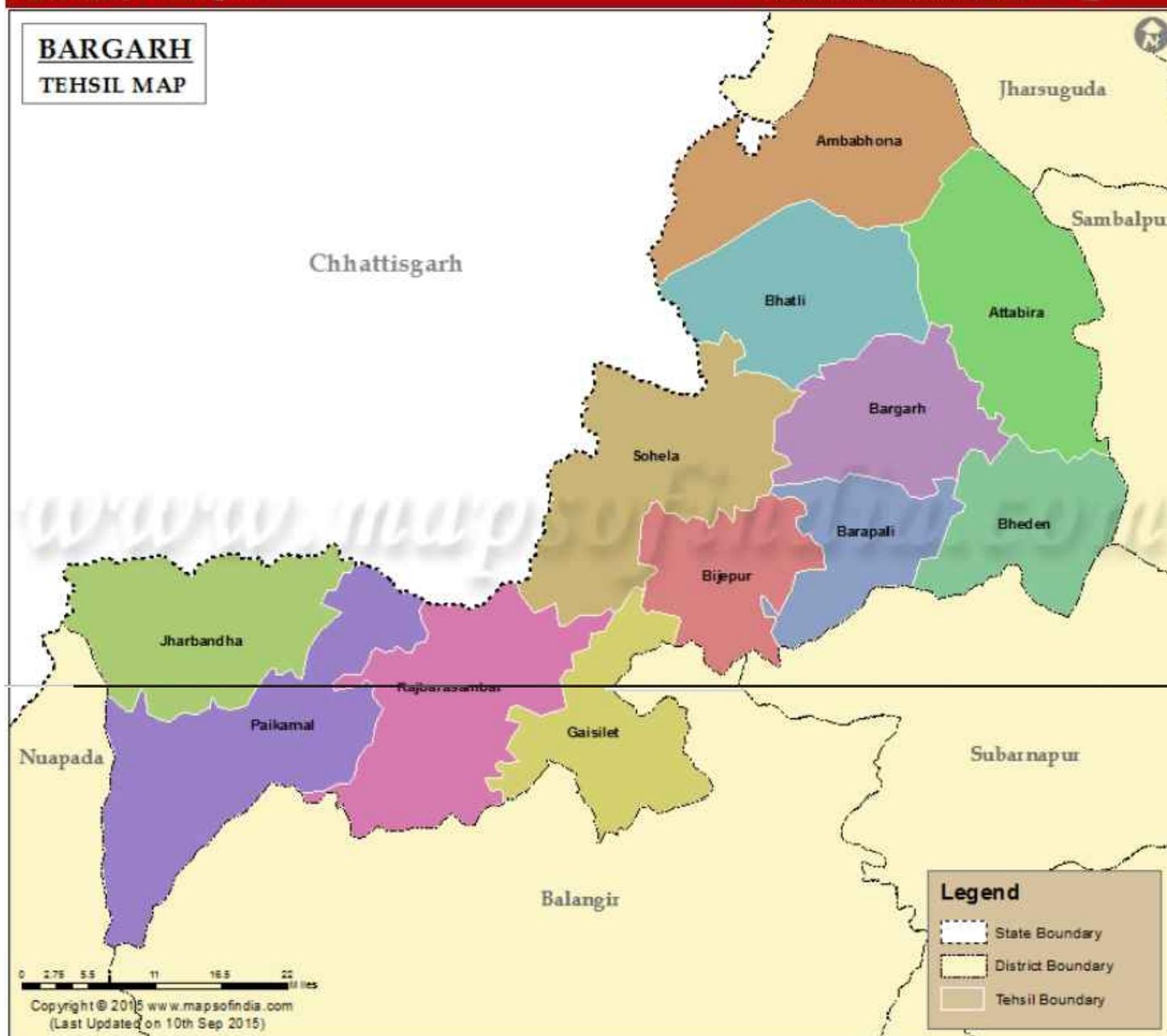
PLATE-I



Tehsil Map of Bargarh

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BARGARH TEHSIL MAP





GEOLOGICAL AND MINERAL MAP OF BARGARH DISTRICT.

10 5 0 10 20 30 40 50 Kms. SCALE: 1CM = 10 KMS.

