EXECUTIVE SUMMARY ENVIRONMENT MANAGEMENT PLAN

for

SAND GHATS

at

GONDIA DISTRICT, STATE MAHARASTHRA

for

PUBLIC HEARING FOR 33 SAND GHATS

PROJECT PROPONENT
DISTRICT MINING OFFICER,
COLLECTOR OFFICE, GONDIA

Environment consultant

MAHABAL ENVIRO ENGINEERS PVT.LTD.

QCI-NABET ACCREDITED EIA CONSULTANT A-202, Chandravijay Society, Opp. Bansuri Hotel, Mahatma Phule Road, Mulund EAST, Mumbai - 400081 Email: mahabal.thane@gmail.com Mobile: +91-96-8942-0343

INDEX

1.	Introduction	6
2.	List of sand ghat in Gondia	8
3.	Status of Statuary Clearances for Sand Ghat	11
4.	Mining Methodology	12
	Method of Mining	12
	Machinery / Equipment required	12
	Transportation	12
	Reclamation	12
5.	Environmental Management Plan	13
6.	Occupation, Health and Services	15
7.	Plantation Program	16
8.	Conclusion	17

LIST OF TABLES

TABLE 1-List of approved 33 sand ghats list	8
TABLE 2 Status of Statuary Clearances for Sand Ghat	11
TABLE 3-Anticipated Impact and Management Plan	13
TABLE 4-Green belt details	16
TABLE 5-List of tree species recommended for Plantation	16

LIST OF FIGURES

Fig	1	Location	of	Gondia	•••••	7
-----	---	----------	----	--------	-------	---

ABBREVIATIONS

Short Form	Long Form
DMO	District Mining Officer
GSDA	Groundwater Surveys & Development Agency
MPCB	Maharashtra Pollution Control Board
PPE	Personal Protective Equipment
EC	Environmental Clearance
MoEFCC	Ministry of Environment Forest and Climate Change

EXECUTIVE SUMMARY

1. INTRODUCTION

The District Collector, Gondia intends to auction sand ghats and designated District Mining Officer (¹DMO), Gondia as a project proponent.

A total of 33 sand ghats are identified by Taluka level technical committee chaired by Tehsildar and Dy. Engineer, Irrigation and Junior Geologist, Directorate of Geology and Mining, Junior Geologist Groundwater Surveys & Development Agency (2GSDA)., representative of Maharashtra Pollution Control Board (3MPCB) for scoping of sand by manual method.

- 1. Environmental Clearance is attempted for 33 Sand ghats located in Gondia, Tiroda, Sadak Arjuni, Aamgaon, Arjuni, Morgaon Talukas in Gondia District.
- 2. As Per the Government of Maharashtra Letter No: Sankirn- 2019/P.K.01/Ta.K.3 dated 03/12/2019, a Public Hearing must be conducted for mines less than 5 Hectares.
- 3. Mahabal Enviro Engineer Pvt. Ltd. was awarded work to obtain Environmental Clearances for Sand Spots of Gondia by the Collector Office, Gondia.

¹ District Mining officer

² Groundwater Surveys & Development Agency

³ Maharashtra Pollution Control Board

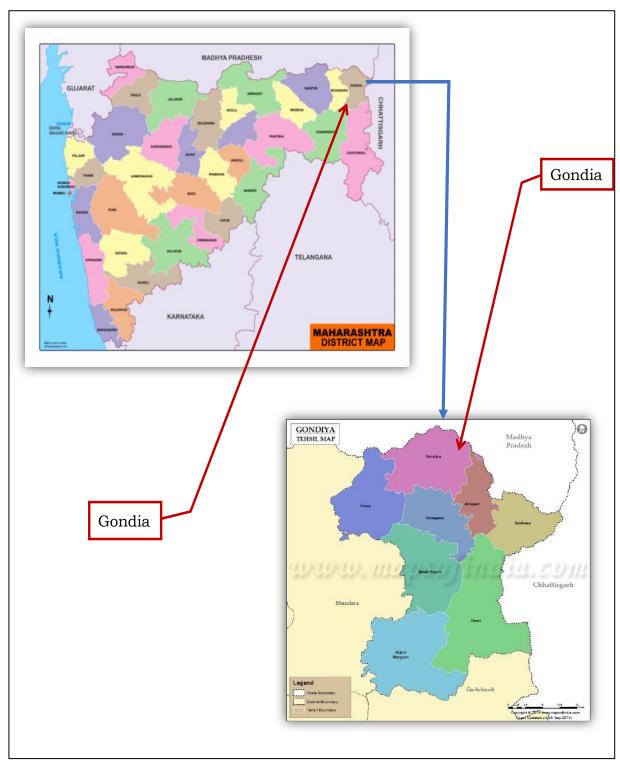


Fig 1 Location of Gondia

2. LIST OF SAND GHAT IN GONDIA

TABLE 1 - List of approved 33 sand ghats list.

Sr.	Sand Ghat Name	Tahsil	River Name	Gut no.	Area (in ha)		Area in meter		Availabe sand in brass	GSDA feedback	Gram sabha	Sand auction yes/no	Upset Price
						Length	Width	Depth					
1	Kinhi	Gondi a	Waing anga	1394, 1397, 1398	4.50	500	90	1	15901	YES	YES	YES	9540600
2	Mahalgaon 1	Gondi a	Waing anga	215, 287, 289	4	400	100	1	14134	YES	YES	YES	8480400
3	Mahalgaon 2	Gondi a	Waing anga	171, 215	3	300	100	1	10601	YES	YES	YES	6360600
4	Murtada (saitola)	Gondi a	Waing anga	123, 126, 128, 129	3.3	300	110	0.5	5830	YES	YES	YES	3498000
5	Murtada (parvatighat)	Gondi a	Waing anga	131, 441, 443	3.85	350	110	0.5	6802	YES	YES	YES	4081200
6	Dangurli	Gondi a	Waing anga	837, 838, 829, 840	4.5	500	90	1	15901	YES	YES	YES	9540600
7	Deori	Gondi a	Waing anga	881, 215	2.24	320	70	1	7915	YES	YES	YES	4749000
8	Tedhva	Gondi a	Waing anga	282, 285, 373	1.17	130	90	0.5	2067	YES	YES	YES	1240200
9	Banthar	Gondi a	Bagh river	378, 890, 396, 892, 886, 398	2.24	320	70	0.4	3166	YES	YES	YES	1899600
10	Satona (gaoghat)	Gondi a	Bagh river	264, 247, 315	1.04	230	45	0.3	1097	YES	YES	YES	658200
11	Birusola	Gondi a	Bagh river	1766, 1312, 1310, 1302, 1301, 1292, 1291	3.50	500	70	0.5	6184	YES	YES	YES	3710400
12	Jirutola	Gondi a	Bagh river	316	1.28.	320	40	0.3	1357	YES	YES	YES	814200

Sr.	Sand Ghat Name	Tahsil	River Name	Gut no.	Area (in ha)		Area in meter		Availabe sand in brass	GSDA feedback	Gram sabha	Sand auction yes/no	Upset Price
13	Pujaritola (kasa)	Gondi a	Bagh river	297, 296, 295, 293, 294, 273, 271, 272, 241, 242, 240	4.50	500	90	0.5	7951	YES	YES	YES	4770600
14	Arjuni	Tiroda	Waing anga	68, 45, 44, 43	1.12	160	70	0.5	1979	YES	YES	YES	1187400
15	Bondrani	Tiroda	Waing anga	449, 451, 452, 453, 455, 468, 469, 477, 478, 476, 481, 482, 485	3	300	100	1.2	12721	YES	YES	YES	22846916
16	Sawara	Tiroda	Waing anga	102, 116, 117, 118, 123, 124, 126, 127, 152	4	400	100	1	14134	YES	YES	YES	8480400
17	Chandori bhuj	Tiroda	Waing anga	229, 230, 238	2.70	300	90	0.5	4770	YES	YES	YES	2862000
18	Biroli	Tiroda	Waing anga	40, 62, 63, 64, 224, 225, 106, 107	4.50	300	150	1.3	20671	YES	YES	YES	12402600
19	Mandavi	Tiroda	Waing anga	434, 435, 436, 441, 442	4.55	350	130	0.5	8039	YES	YES	YES	4823400
20	Kavlewada	Tiroda	Waing anga	614, 615, 616, 617, 211	1.28	160	80	0.5	2261	YES	YES	YES	1356600
21	Ghatkuroda 1	Tiroda	Waing anga	539, 541, 542, 543, 546, 559, 560, 561, 15, 16, 17, 18	4.50	450	100	1.4	22261	YES	YES	YES	13356600
22	Ghatkuroda 2	Tiroda	Waing anga	620, 429, 486, 487, 488, 489, 491, 492	4.50	450	100	1.5	23852	YES	YES	YES	14311200
23	Ghattemani (dongaghat)	Aamg aon	Bagh river	1049, 1054, 1055	1.05	350	30	0.3	1113	YES	YES	YES	667800
24	Manekasa	Aamg aon	Bagh river	195, 196, 200, 203	1.20	300	40	0.3	1272	YES	YES	YES	763200

Sr.	Sand Ghat Name	Tahsil	River Name	Gut no.	Area (in ha)		Area in meter		Availabe sand in brass	GSDA feedback	Gram sabha	Sand auction yes/no	Upset Price
25	Sawangi 1	Sadak arjuni	Chulb and river	590, 702, 703, 704	1.08	360	30	0.3	1145	YES	YES	YES	687000
26	Sawangi 2	Sadak arjuni	Chulb and river	24, 202, 601, 204, 205, 207, 225, 226, 227	1.14	380	30	0.5	2014	YES	YES	YES	1208400
27	Palsgaon raka	Sadak arjuni	Chulb and river	281, 282, 283, 284, 303(OLD)	1.10	220	50	0.3	1166	YES	YES	YES	699600
28	Saundad	Sadak arjuni	Chulb and river	988(OLD), 1452, 85, 1451, 72	1.44	360	40	0.4	2035	YES	YES	YES	1221000
29	Pipari	Sadak arjuni	Chulb and river	1(OLD), 223- A, 223-B, 224, 225	1.20	400	30	0.4	1696	YES	YES	YES	1017600
30	Kodamedi	Sadak arjuni	Chulb and river	1(OLD)	1.01	460	22	0.3	1073	YES	YES	YES	643800
31	Ghatboriteli	Sadak arjuni	Chulb and river	1(OLD)	1.12	280	40	0.3	1187	YES	YES	YES	712200
32	Singhmarahn	Aarju ni moreg aon	Gadha vi river	55, 56, 62, 63	1.05	300	35	0.25	928	YES	YES	YES	556800
33	Wadegaon bandya	Aarju ni moreg aon	Gadha vi river	197	1.04	580	18	0.4	1476	YES	YES	YES	885600

3. STATUS OF STATUARY CLEARANCES FOR SAND GHAT

The status of statuary clearance for sand ghat is shown below in Table No, 2

TABLE 2 Status of Statuary Clearances for Sand Ghat

Sr	Particulars	Details
1	Name and address of Allottee	District Mining Officer, Gondia
2.	Status of lease	New
3.	Mineral for which the lessee intends to mine	River bed sand
4.	Name and Address of Prospecting Agency	Taluka Level Technical Committee chaired by Tehsildar and Dy. Engineer Irrigation, Junior Geologist, Directorate of Geology and Mining, Junior Geologist Groundwater Surveys & Development Agency (GSDA)., representative of Maharashtra Pollution Control Board.
5.	Gram Panchayat NOC	Received from Gram Panchayat as per Sand Mining Policy of Maharashtra State.
6.	Plan Period for activity	Up to one year from the date of allocation of the sand ghat.

4. MINING METHODOLOGY

Method of Mining

Opencast manual method without drilling & blasting will be used for sand mining. Labours with hand tools such as Spade, and Ghamelas will be used. Excavation of sand is done from dry riverbeds only.

The following process is followed for the estimation of sand in the sand ghat:

- 1) The demarcation and benchmarking of the sand ghat are done at 10m x 10m intervals.
- 2) Auger driller is used to find out the depth of sand in each grid.
- 3) Auger driller is used to create the holes in sand ghat using a 10mx10m grid pattern.
- 4) The depth of holes is measured by using a measuring tape.
- 5) After taking all the readings the average depth of sand ghat of the river is calculated in meters.

Machinery / Equipment required

Spades, Ghamelas, and Tractors with trolleys are the machinery/equipment used for sand mining.

Transportation

Transportation will be done by tractor trolley from the sand spot to the stockyard & to consumers.

Reclamation

The mined-out area will be replenished automatically after the monsoon. Plantation will be carried out along the riverbank and along the transport road.

5. ENVIRONMENTAL MANAGEMENT PLAN

TABLE 3-Anticipated Impact and Management Plan

Sr	Impact	Management Plan
1.	Air Pollution	 Water Sprinkling will be done on approach roads up to 1.00km for dust suppression.
		 Speed of the tractors will be within limits.
		 Road maintenance will be done regularly.
		 Compaction of roads will be done.
		 Sand will be transported by tractor, and trolleys covered with tarpaulin sheets.
		 Tractor trolleys will not be overloaded.
2.	Noise Pollution	 Ear muffs and ear plugs will be provided to labours.
		 Heavy noise-generating machines will not be deployed other than tractor trolleys.
		 Tractor engines will be shut down while loading.
		 Greenbelt shall be developed to reduce noise generation.
3.	Water Pollution	 Mining activity will be closed during the monsoon, so that replenishment of sand can take place.
		 Mobile toilets will be provided at the mine site for labours.
		 Sand mining will be carried out in dry river beds only.
		 Waste material like polythene bags, jute bags, etc. will not be

		allowed to remain/spill in the riverbed.			
4.	Land Environment	 Minimum safe distance of 7.5m or 1/10th of the width of the river shall be kept from both sides of the bank to avoid erosion 			
		 Depth of mining will be a maximum of 1.5m depending upon the availability of sand. 			
5.	Biological Environment	• Since the mining activity will be done on a dry bed, hence there will not be any impact on the biological environment.			
6.	Socio-Economic Environment	■ Employment generation due to this mining activity. Local villagers will be given priority for employment.			
7.	Waste/Overburden Management	• There will not be any generation of waste or overburden due to this mining activity.			

6. OCCUPATION, HEALTH AND SERVICES

A summary of Occupational Health and Services is given below

- 1. Labour will be provided with Personal Protective Equipment (4PPE) like a safety helmet, ear plugs, earmuffs, gum boot, facemasks, etc.
- 2. Facemasks shall be provided for protection from dust.
- 3. Drinking water and toilet facility shall be provided to labours
- 4. First aid kit shall be made available in the mining area.
- 5. Mobile toilets shall be provided for the labours.
- 6. Dust bins shall be provided for waste collection and disposed of by the local authority

⁴ Personal Protective Equipment

7. PLANTATION PROGRAM

It is proposed to plant local species during the monsoon period along the bank of the river and village roads.

TABLE 4-Green belt details

Particular	Details
Location of greenbelt	Both sides of the approach road, On the riverbanks of the sand spot & nearby open areas. Haul Road outside the riverbed
No. of plants to be planted	500 Per Hectare
Spacing of plants	2 m grid interval
Species selected	Native species

TABLE 5-List of tree species recommended for Plantation

Sr	Botanical name	Local name	Importance
1.	Azadirachta Indica	Neem	Neem oil & neem products
2.	Tectona Grandis	Teak	Antibacterial, Antifungal, Antiulcer
3.	Ficus Religiosa	Peepal	Medicinal use, Fruits & figs
5.	Bambusa Vulgaris	Bamboo	Anthelmintic Anti- inflammatory, Astringent Properties
6.	Madhuca Longifolia	Mahua	Acts as a Stimulant & cough relief

8. CONCLUSION

- 1. Environmental Clearance (⁵EC) is applied for 33 Sand spots located in Gondia, Tiroda, Sadak Arjuni, Aamgaon, Arjuni, Morgaon Talukas in Gondia District. Maharashtra having a lease area of less than 5ha, fall under the B2 category as per Ministry of Environment Forest and Climate Change (⁶MoEFCC) guidelines.
- 2. Empirical method of mining will control water from spreading on agricultural land and in nearby habitation creating a flood situation
- 3. Government will be benefitted in the form of royalty due to the mining activity
- 4. Business opportunities will be generated for local villagers due to mining
- 5. The proposed project will also make an optimistic contribution to the social infrastructure and overall development of the region.
- 6. All environmental issues like air, water, noise, soil, solid waste management, etc. will be dealt with as per the MoEFCC guidelines.

*** END ***

⁵ Environmental Clearance

⁶ Ministry of Environment Forest and Climate Change

Annexure 1
List of approved 33 sand ghats list.

Sr	Sand Ghat Name	Tahsil	River Name	Gut no.	Area (in ha)	Area in meter			Available sand in brass	GSDA feedback	Gram Sabha resolution	Sand auction Yes/No	Upset price
						Length	Width	Depth					
1	Kinhi	Gondia	Wainganga	1394, 1397, 1398	4.50	500	90	1	15901	YES	YES	YES	9540600
2	Mahalgaon 1	Gondia	Wainganga	215, 287, 289	4	400	100	1	14134	YES	YES	YES	8480400
3	Mahalgaon 2	Gondia	Wainganga	1,71,215	3	300	100	1	10601	YES	YES	YES	6360600
4	Murtada (saitola)	Gondia	Wainganga	123, 126, 128, 129	3.3	300	110	0.5	5830	YES	YES	YES	3498000
5	Murtada (parvatighat)	Gondia	Wainganga	131, 441, 443	3.85	350	110	0.5	6802	YES	YES	YES	4081200
6	Dangurli	Gondia	Wainganga	837, 838, 829, 840	4.5	500	90	1	15901	YES	YES	YES	9540600
7	Deori	Gondia	Wainganga	881, 215	2.24	320	70	1	7915	YES	YES	YES	4749000
8	Tedhva	Gondia	Wainganga	282, 285, 373	1.17	130	90	0.5	2067	YES	YES	YES	1240200
9	Banthar	Gondia	Bagh river	378, 890, 396, 892, 886, 398	2.24	320	70	0.4	3166	YES	YES	YES	1899600
10	Satona (gaoghat)	Gondia	Bagh river	264, 247, 315	1.04	230	45	0.3	1097	YES	YES	YES	658200
11	Birusola	Gondia	Bagh river	1766, 1312, 1310, 1302, 1301, 1292, 1291	3.50	500	70	0.5	6184	YES	YES	YES	3710400
12	Jirutola	Gondia	Bagh river	316	1.28	320	40	0.3	1357	YES	YES	YES	814200
13	Pujaritola (kasa)	Gondia	Bagh river	297, 296, 295, 293, 294, 273, 271, 272, 241, 242, 240	4.50	500	90	0.5	7951	YES	YES	YES	4770600
14	Arjuni	Tiroda	Wainganga	68, 45, 44, 43	1.12	160	70	0.5	1979	YES	YES	YES	1187400
15	Bondrani	Tiroda	Wainganga	449, 451, 452, 453, 455, 468, 469, 477, 478, 476, 481, 482, 485	3	300	100	1.2	12721	YES	YES	YES	22846916
16	Sawara	Tiroda	Wainganga	102, 116, 117, 118, 123, 124, 126, 127, 152	4	400	100	1	14134	YES	YES	YES	8480400
17	Chandori bhuj	Tiroda	Wainganga	229, 230, 238	2.70	300	90	0.5	4770	YES	YES	YES	2862000
18	Biroli	Tiroda	Wainganga	40, 62, 63, 64, 224, 225, 106, 107	4.50	300	150	1.3	20671	YES	YES	YES	12402600
19	Mandavi	Tiroda	Wainganga	434, 435, 436, 441, 442	4.55	350	130	0.5	8039	YES	YES	YES	4823400

Sr	Sand Ghat Name	Tahsil	River Name	Gut no.	Area (in ha)	Area in meter				GSDA feedback	Gram Sabha resolution	Sand auction Yes/No	Upset price
						Length	Width	Depth					
20	Kavlewada	Tiroda	Wainganga	614, 615, 616, 617, 211	1.28	160	80	0.5	2261	YES	YES	YES	1356600
21	Ghatkuroda 1	Tiroda	Wainganga	539, 541, 542, 543, 546, 559, 560, 561, 15, 16, 17, 18	4.50	450	100	1.4	22261	YES	YES	YES	13356600
22	Ghatkuroda 2	Tiroda	Wainganga	620, 429, 486, 487, 488, 489, 491, 492	4.50	450	100	1.5	23852	YES	YES	YES	14311200
23	Ghattemani (dongaghat)	Aamgaon	Bagh river	1049, 1054, 1055	1.05	350	30	0.3	1113	YES	YES	YES	667800
24	Manekasa	Aamgaon	Bagh river	195, 196, 200, 203	1.20	300	40	0.3	1272	YES	YES	YES	763200
25	Sawangi 1	Sadak arjuni	Chulband river	590, 702, 703, 704	1.08	360	30	0.3	1145	YES	YES	YES	687000
26	Sawangi 2	Sadak arjuni	Chulband river	24, 202, 601, 204, 205, 207, 225, 226, 227	1.14	380	30	0.5	2014	YES	YES	YES	1208400
27	Palsgaon raka	Sadak arjuni	Chulband river	281, 282, 283, 284, 303(OLD)	1.10	220	50	0.3	1166	YES	YES	YES	699600
28	Saundad	Sadak arjuni	Chulband river	988(OLD), 1452, 85, 1451, 72	1.44	360	40	0.4	2035	YES	YES	YES	1221000
29	Pipari	Sadak arjuni	Chulband river	1(OLD), 223-A, 223-B, 224, 225	1.20	400	30	0.4	1696	YES	YES	YES	1017600
30	Kodamedi	Sadak arjuni	Chulband river	1(OLD)	1.01	460	22	0.3	1073	YES	YES	YES	643800
31	Ghatboriteli	Sadak arjuni	Chulband river	1(OLD)	1.12	280	40	0.3	1187	YES	YES	YES	712200
32	Singhmarahn		Gadhavi river	55, 56, 62, 63	1.05	300	35	0.25	928	YES	YES	YES	556800
33	Wadegaon bandya	Aarjuni moregaon	Gadhavi river	197	1.04	580	18	0.4	1476	YES	YES	YES	885600