

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
&
ENVIRONMENT MANAGEMENT PLAN
For Obtaining
Environmental Clearance under EIA Notification – 2006 Schedule Sl. No. 1 (a) (i):
Mining Project
FOR STONE QUARRY

“B1” CATEGORY – MINOR MINERAL
STONE QUARRY
At

Gut No 20/2,20/3,21/1,21/2,138,22/1,22/2
Village Kavadas Barad Tq. Bhivapur
District Nagpur, Maharashtra
Over Area 13.52 Ha

Project Proponent
MO. JAVED SHAFIQ AHMAD ANSARI
&
MO. SAJID SHAFIQ AHMAD ANSARI
VILLAGE KAVADASI BARAD,
TQ.BHIVAPUR, DIST.NAGPUR

Environmental Consultant
Enviro Techno Consult Private Limited
68, Mahakali Nagar-2
Near Manewada Square
Nagpur 440024

Accredited for sector 1 Category ‘A’

QUALITY COUNCIL OF INDIA
NATIONAL ACCREDITATION BOARD FOR EDUCATION & TRAINING

Certificate No : NABET/EIA/25-28/IA0169

MAY 2026

EXECUTIVE SUMMARY

This EIA report is prepared by considering Cumulative load of all proposed & existing quarries of Kavadas Barad Tq. Bhivapur District Nagpur consisting of proposed stone quarry of Mr. Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari

as per moefcc notification S.O. 2269 (E) dated 01.07.2016) in Kavadas Barad Tq. Bhiwapur Taluka, Nagpur District, Maharashtra State.

This EIA Report is prepared in compliance with ToR obtained –

Sr. No	Name of Project Proponent	ToR Reference for Quarry	ToR Date	Area in Ha
1	Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari	SIA/MH/MIN/563382/2025	13.01.2026	13.52

And the Baseline Monitoring study has been carried out during the period of March 2026-May 2026

LIST OF RUNNING ,ABANDONED,PROPOSED,PROVISIONED STONE QUARRIES INCORPORATED IN REGIONAL MINING PLAN FOR STONE QUARRY CLUSTER AT VILLAGE KAVDASI BARAD TALUKA BHIWAPUR DIST. NAGPUR ,MAHARASHTRA

A LOI Issued

Sr. No.	Gut No	Area in Ha.	Mineral	Details	Status of Lease	Distance from Habitat
1	20/2,20/3,21/1,21/2,138,22/1,22/2	13.52	Basalt (Stone)	Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari	LOI issued	Mohapa - 1.12 Km NW
2	29/2,29/1/A,29/1B	5.25	Basalt (Stone)	Shraddha Mallelwar +2	LOI issued	1.067 Km Mohapa North
Total Area A- 18.77Ha						

List of Existing & Proposed Quarries in Cluster

Sr. No.	Name of Lessee	Minerals	Village	Land Type	S. No	Area in Ha	Date of Grant	Lease from	Lease upto	Remarks
1	Lokesh Damodar Zode	Stone	Dhurkheda	Pvt. Land	249/2	2.21	04.07.2024			LOI Issued (EC UNDER PROCE SS)
2	Lokesh Damodar Zode	Stone	Dhurkheda	Pvt. Land	200/1	2.50		10.08.2022	09.08.2027	EC Granted
3	Basil Paul	Stone	Dhurkheda	Pvt. Land	208	2.00				LOI Issued
4	Ajay Shyamlal Bachwani	Stone	Metmangrul	Pvt. Land	46(P), 47, 48	4.95		03.01.2024	02.01.2029	
5	Meena Jeswani	Stone	Metmangrul	Pvt. Land	92/2,94	2.65	18-05-2023			EC Granted
6	Vinit Sanjay Agrawal and Mr. Abhilekh	Stone	Metmangrul	Pvt. Land	105,104,103,102,101,100,99,98, Part	3.84				

	Sunil Agrawal									
7	Yogesh Taori/Mayan Buildcon	Stone	Metmagrul	Pvt. Land	108, 109(P)		31-03-2020			EC Granted, Lease Execution Under Process
8	Mrs. Preeti Vinit Agrawal	Stone	Mohpa	Pvt. Land	33/1	1.80				EC Granted
9	Meena Jeswani	Stone	Mohpa	Pvt. Land	43	2.72	20-03-2022	20-03-2022	19-03-2027	EC Granted
10	Vishal Jeswani & Sandesh Jeswani	Stone	Godhni	Pvt. Land	72 (Parts)	4.00	18.05.2023			EC Granted
11	Om Saibaba Construction Rep. by Shri Ajay Gurudayal Batra	Stone	Kawadsi (B)	Pvt. Land	113 part	4.00		11.07.2020	10.07.2025	Lease renewal in process
12	Subhash Dewalkar	Stone	Kawadsi (B)	Pvt. Land	43/1,42/2, 42/3	4.49		11.07.2020	10.07.2025	Lease renewal in process
13	Md Sajid Ahmed Ansari and Md Javed Ahmed Ansari	Stone	Kawadsi (B)	Pvt. Land	115 116	3.24		30-07-2022	29-07-2027	
14	Yogesh Taori/Lokesh Zode Vikesh Zode	Stone	Kawadsi (B)	Pvt. Land	28/1,28/2, 28/3,	4.98	31.03.2020	01.09.2023	30.03.2027	
15	Mrs Ashwini Sunil Wasade	Stone	Kawadsi (B)	Pvt. Land	106/1,106/2	2.00				LOI Issued / EC Under Process
16	Lokesh Damodhar Zode, Vikesh Damodhar Zode	Stone	Kawadsi (B)	Pvt. Land	28/1,28/2, 28/3, parts	1.96	04.07.2024			LOI Issued
17	Khemraj Mate	Stone	Chargaon (G)	Pvt. Land	35/1	3.47		10.11.2023	09.11.2028	
18	Shri Ajay Gopaldas Jeswani and Miss Sarita Khemani	Stone	Chargaon (G)	Pvt. Land	27, 29/2(P), 29/3(P)	1.75		30.07.2022	29.07.2027	
19	Shri Ajay Gopaldas Jeswani and 3 Others	Stone	Chargaon (G)	Pvt. Land	28/2,29/3, 29/4,38/2	4.40				LOI Issued

20	Ankit Chandgothia	Stone	Chargaon (G)	Pvt. Land	105/3	2.00		10.08.2022	09.08.2027	
21	Ajay Jeswani, Kanak Jeswani, meena jeswani sarita jeswani	Stone	Chargaon (G)	Pvt. Land	22	2.40				
22	Ajay Jeswani, Kanak Jeswani, meena jeswani sarita jeswani	Stone	Chargaon (G)	Pvt. Land	29part1	1.50				LOI Issued
23	Ajay Jeswani & 3 others	Stone	Chargaon (G)	Pvt. Land	22	2.40	10.10.2025			LOI Issued
24	Meena Jeswani & 2 others	Stone	Chargaon (G)	Pvt. Land	38/1,38/2	2.00	10.10.2025			LOI Issued
25	Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari	Stone	Kawadsi (B)	Pvt. Land	20/2,20/3, 21/1,21/2, 138,22/1,2 2/2	13.52	13.01.2026			LOI Issued
26	Shraddha Mallewar +2	Stone	Kawadsi (B)	Pvt. Land	29/2,29/1/A,29/1B	5.25	04.01.2026			LOI Issued
Total Area in Ha						86.03 Ha				

Details of Stone Quarry

	Parameters	Details	Observation
1	TAILS OF STONE QUARRY CLUSTER		
a.	Name of Stone quarry Cluster	Kavadasi Barad Stone Quarry of Mr. Javed Shafiq Ansari & his partner	
b.	Name of the Mineral bearing area	Kavadasi Barad Stone Quarry bearing Mineral “Basalt”	
c.	Particulars of adjacent blocks: North, South, East, West	North Side of quarry cluster Village Metmangrud & Mohapa South Side of quarry cluster Kavdasi.	
d.	Topo sheet No with latitude and longitude	(Bounding Co-ordinates)	
	Topo sheet No	56 P/05	
	Latitudes (N):	20°47' 15.0859"N to 20°47' 14.7002"N	
	Longitude (E):	79°17' 21.2456"E to 79°17' 26.8838"E	
e.	Location of the CLuster District / State	Kavadasi Taluka Bhiwapur, District – Nagpur, State - Maharashtra	
f.	Type of the Project (Operating / under Implementation)	Total Cluster Area 86.03 Ha	
2	DETAILS OF THE PRESENT PROPOSAL		
a.	BASE DATE OF	January, 2026.	

	Parameters	Details	Observation
	MINING PLAN		
b.	Scope of the mining plan	As per S.O. 2296 dated 01.07.2016 and ToR Specific condition no 11, Regional Mining Plan including list of existing operational quarries with their areas and production potential along with status of EC, list of existing quarries operational under temporary permit, list of old/abandoned/closed mines along with status of mine closure as per approved mining plan or guidelines, list of proposed quarries included in the District Survey Report along with their area and mining potential etc. required to prepare.	
3	ALLOTTEE COMPANY DETAILS		
a.	Name the Authority preparing Regional Mining Plan	Not Applicable Being Single Quarry proposed for Terms of Reference and EIA studies	
b.	Status of the Applicant	Individual	
c.	Details of Terms of Reference	ToR Letter SIA/MH/MIN/563382/2025 dated 13.01.2026	
d.	Name and address of the applicant	Mr. Mo. Javed Shafiq Ahmad Ansari Plot No 52,Baba Budhhaji Nagar,Teka, Farook Nagar Nagpur 440017	
e.	Relationship between the applicant and Association	Individual Applicant	
f.	Name and address of RQP with registration No	Shri A.P. Saraf ,RQP, Nagpur Registration no. RQP/NGP/467/2013A	
4	Details of the Previous Approval of Mining plan		
a.	Date of Approval	Vide letter MLV/Misc/432/Part/2025/358 dated 03.11.2025	
b.	Conditions if any	Condition As per Tor granted vide letter ToR Letter SIA/MH/MIN/563382/2025 dated 13.01.2026	
c.	Scheduled year of start of production	January 2027	
d.	Proposed year of achieving the targeted production	January 2027	
e.	Date of actual commencement of mining operations, if operations already started	January 2027	
f.	Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations	Not applicable	

	Parameters		Details		Observation																								
g.		Planned production and actual levels achieved in last 3 years	Nil Being new Proposed Quarry																										
h.		Reasons for difference between the planned and actual production levels	Not Applicable being new Proposed Quarry																										
5	Details of Mining Plans approved and proposed to approve																												
			Previous Mining Plan	Current Mining Plan																									
a.		Lease area “Ha”	Not Applicable	13.52																									
b.		Project Area “Ha”	Not Applicable	13.52																									
c.		Life of the Project “Yrs”	Not Applicable	15 Yrs																									
d.		Minimum and Maximum Depth of working “m”	Not Applicable	Maximum Proposed Depth 18m																									
e.		Geological Contageous area for Basalt in “Ha”	Not Applicable	13.52																									
f.		Production Target “Brass”	Not Applicable																										
g.		Seams not considered for Mining with Reasons	Not Applicable																										
h.		Geological Reserve “cum”	Not Applicable	4963200																									
i.		Blocked /Excavated Reserve “Million cum”	Not Applicable	00																									
j.		Minable Reserve “Million cum”	Not Applicable	4436796																									
k.		Extractable Reserves “Million cum””	Not Applicable	4436796																									
l.		% of Extraction/recovery	Not Applicable	90%																									
m.		Reserve Depleted (till the base date Mar. 2026) “Million cum”	Not applicable																										
o.		Balance Extractable reserve “Million cum”	Not applicable																										
p.		Grade	Building Grade	Building Grade																									
q.		OB in MM³	Not Applicable being Minor Mineral	Not Applicable being Minor Mineral																									
r.		Stripping Ratio in %	90%																										
s.		Mining Technology	Opencast with drilling followed & Blasting																										
t.		Any Beneficiation envisaged	Not Required, However sizing by crushing is proposed																										
u.		Handling of Rejects(OB)	Not applicable																										
v.		Land use pattern “ Ha”	<table><tr><td>Area</td><td>Existing Land Use in sqm</td><td>Conceptual Land Use in sqm</td></tr><tr><td>Area under pits</td><td>00</td><td>120804</td></tr><tr><td>Area under dumps</td><td>00</td><td>00</td></tr><tr><td>Undisturbed Area</td><td>135200</td><td>00</td></tr><tr><td>Area under Roads</td><td>00</td><td>500</td></tr><tr><td>Area under Plantation</td><td>00</td><td>10028</td></tr><tr><td>Area under Storage</td><td>00</td><td>00</td></tr><tr><td>Area under Office,</td><td>00</td><td>1168</td></tr></table>		Area	Existing Land Use in sqm	Conceptual Land Use in sqm	Area under pits	00	120804	Area under dumps	00	00	Undisturbed Area	135200	00	Area under Roads	00	500	Area under Plantation	00	10028	Area under Storage	00	00	Area under Office,	00	1168	
Area	Existing Land Use in sqm	Conceptual Land Use in sqm																											
Area under pits	00	120804																											
Area under dumps	00	00																											
Undisturbed Area	135200	00																											
Area under Roads	00	500																											
Area under Plantation	00	10028																											
Area under Storage	00	00																											
Area under Office,	00	1168																											

	Parameters	Details	Observation
		Crusher etc.	
1	Excavation Area	13.52	
2	Top soil dump	Nil Being Minor Mineral as Stone is outcropped	
4	External Dump	Not Applicable	
5	Safety Zone	7.5 meter peripheral area per quarry	
6	Other uses	Not Applicable	
7	Infrastructure	Offices and amenities proposed per quarry, No Magazine is proposed	
8	Green Belt	Total Green Belt over 1.00 Ha around safety area of quarry, 2.5 Ha area covering roads and village boundaries are proposed	
9	Roads	Haul Roads are already developed in the area. No new road is proposed.	
10	Undisturbed Area	1.00 Ha Safety area	
6	END USE OF STONE METAL		
a.	End Use of Stone metal	Saleable to builders, road makers and other infrastructural requirement	
c.	Percentage of end use requirement to be met from this quarry	100%	
e.	Proposed Use of Rejects	100% Saleable	
d.	Mode of Transport	By Road	
7	EXPLORATION AND GEOLOGY		
a.	Geological Area “Ha”	13.52 Ha	
b.	Status of Exploration of the Cluster area for Basalt	Not applicable being Basalt. Calculated depth based on existing pits	
c.	Area covered by ‘detailed’ exploration within the block (sq.km)	13.52 Ha	
d.	Whether entire lease area has been covered by ‘ detailed ‘ exploration	Not applicable	
e.	No of boreholes drilled within the Basalt cluster	Not applicable	
f.	Whether any further exploration /study is required or suggested and time frame in which it is to be completed	Not applicable being Basalt s minor mineral	
g.	Overall borehole density within the block (no./ sq km) approx	Not applicable	
h.	No of Seams available as per GR	Not applicable)	
i.	Seams not considered for Mining with Reasons	Not applicable	
8	MINING		
a.	Existing method of mining if the mine is under operation	Total Cluster Area 86.03 Ha	
b.	Proposed method of mining with justification on suitability of method of mining	Proposed methods of mining are also same i.e. Opencast method by drilling followed by Blasting	
c.	Basalt production capacity proposed “Mtpa	147344 Brass/Year	
e.	Calendar year from which the production will start	Total Cluster Area 86.03 Ha Proposed quarries will start operation since January 2027	

	Parameters	Details	Observation
f.	Year of Achieving rated production	Immediate After January 2027	
i.	Peak / Rated Capacity		
	- By opencast:	147344 Brass/Year	-
	- Overall	147344 Brass/Year	
j.	Life of the mine :		
	- By opencast:	15Years	
	- Overall	15Years	
k.	Whether the proposed external OB dump site is Basalt bearing	No	
m.	Whether the mining operations to be carried out through quarry owners or outsourcing or thru association	Solely by individual quarry owner only	
n.	Operations that are proposed to be outsourced	Blasting and Drilling	
o.	Proposed configuration of HEMM for OC (Coal & OB) & Major Equipment for UG.	For OB Removal : Excavators For Basalt : Excavators, Drills For common use: Excavators ,tippers, trollies	
q.	Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals.	Environment Monitoring will be done as per approved EIA / EMP	
9	IMPORTANT SAFETY ASPECTS – Major Risks and uncertainties to the project viz. Proximity to river, adjacent working, geo-mining disturbances, slope stability and remedial measures suggested. It should also include proposed overall slope of the quarry and OB dump, dump height, strata control, fire and spontaneous heating, gas monitoring , disaster management, danger from in rush of water etc.		There are no major river, Nala, village or forest, ESA/ESZ nearby within safety limit of 200m as per MMEDR 2013. No Dumps are proposed. Mineral Storage will be temporary in nature and sold on daily basis.
10	STATUS OF LEASE		
a.	Status of Lease	Not Applicable for Regional Mining Plan.	
b.	Existing Lease Area "Ha"	13.52 Ha	
c.	Period for which Mining Lease has been granted / is to be renewed / is to be applied for.	As per provisions of MMEDR 2013. No provision of mining lease for cluster. However individual leases will be executed as per provisions of MMEDR 2013.	
d.	Date of expiry of earlier Mining Lease, if any	Not applicable being proposed lease	
f.	Lease Area (applied / required) as per the Mining Plan under consideration (Ha)	Total Cluster Area 86.03 Ha Proposed quarries will start operation since January 2027	
g.	Whether the applied lease area falls within the allotted Cluster	Not Applicable being individual Terms of Reference being area more than 5 Ha	
j.	Details of outside area:		
	☐ Whether forms part of any other Mineral block	No.	
	☐ Whether it contains any other mineral content	No.	

Compliances to EIA notification 2006 amendment vide S.O. 2296 dated 1st July 2016 for preparation of Regional Mining Plan for cluster of minor mineral quarries exceeding area 25 ha or area greater than 5 Ha in cluster.

Sr. No.	Observation/Legal/Statutory Requirement	Compliance
1.	Statutory agency demanded Regional Mining Plan	SEIAA/SEAC, Maharashtra
2.	Approval Authority	Director, Directorate of Geology and Mining, Govt. of Maharashtra, Nagpur.
3.	Name of Environmental Consultant	M/s Enviro Techno Consult Private Limited, Nagpur
4.	Name of RQP/TQP	Mr. A. P. Saraf
5.	Regd. No of RQP	RQP/NGP/467/2013A valid till 2023
6.	Name of the Mining Plan	Proposed Stone Quarry of Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari over 13.52 Ha at village Kavadas Barad Tq. Umred District Nagpur
7.	Name of Project Proponent responsible for implementation of Regional Mining Plan	Mr. Mo. Javed Shafiq Ahmad Ansari & Mo. Sajid Shafiq Ahmad Ansari
8.	Jurisdiction of Stone Quarry Cluster/Stone Quarry	District Collector, Nagpur Thru District Mining Officer, Nagpur

EIA monitoring:

- Monitoring was conducted as per standard terms of reference for the mining industry and those mentioned in the TOR issued by SEIAA within area within 10 km radius from the lease was examined. Baseline ambient air quality, information on hydrogeology and water quality, land use etc. was collected as per MOEF&CC criteria.
- Probable impacting activities during proposed mining activity have been identified. Particulate matter emissions were predicted by emission factor approach for drilling, blasting, transportation activities etc.
- Impacts on water quality quantity impacts were considered. Impact on land use, socio economic status during project activities have been considered.

Base line environmental quality:

- Air : There are no industrial gaseous -emission sources. Predominant wind directions in the order are NE (17%),ENE, S, & SSW (12 %). Average wind speed is 0.9 m/sec. Calm conditions are 10.4 per cent.
- Atmospheric stability class at Kavdasi Barad is “moderately unstable to slightly unstable” during the day. Area has rural setting.
- Concentrations of criteria pollutants were found to be well below National air quality criteria viz. PM₁₀, PM_{2.5}, SO₂ and NO_x which are respectively 100,60,80 and 80 µg/m³.
- Predominant emissions during open cast mining project would be generate particulate matter likely during drilling, blasting, loading/unloading and transportation activities .
- Noise: Ld, Ln & Ldn values were typical of rural background

Location ID	ML	Kavdasi Barad	Lohara	Masala	Mohapa	Chargao n	Chinchal a	Dhurkheda
RANGE 24-hrs.	35-58.1	38.7-55.7	39.4-67.2	43.2-54.4	39.0-60.0	35.0-55.1	36.4-51.8	37.0-58.9
Ld	53.6	51.4	59.7	61.9	64.4	49.3	47.5	51.5
Ln	41.1	43.3	48.5	62.4	55.4	40.1	40.9	39.8
Ldn	52.8	52.2	59.3	68.5	67.3	49.6	49.1	51.0

Sources of noise would be during drilling and blasting. Three holes will be drilled in a day and there would be three blasts per week.

There are three surface sources in the lease except abandoned pits occupying 56.61Ha. . Ground water in such areas is alkaline. There is isomorphic replacement of fluoride ions in geology by hydroxyl ions. Surface runoffs during monsoon from lease will enter abandoned pits. Some water will evaporate and some can slowly percolate down.

Surface runoffs during monsoon from lease will enter abandoned pits. Some water will evaporate and some can slowly percolate down.

Abandoned mine pit water quality meets the criteria A-II for surface water source viz. public water supply with approved treatment equivalent to coagulation, sedimentation & disinfection (Govt. of Maharashtra resolution no 2000/326/P.K .22/3 dated 15-07-2000). It would need disinfection if it is to be used for consumption. Suspended solids, if any will settle down during long detention in the pits.

Ground water potential : Kavadas Barad Stone Quarry:

Ground water recharge rate by pit- water was calculated using relation $\text{area} \times \text{annual rainfall} \times \text{coefficient}$ 0.3 for Basalt It is likely to be 43273 m³/year considering total area of 13.52 ha (Pit Area Of 120804) and rainfall of 1200mm. Water table is at 25 m below ground level near the lease. Ground water table will not be intercepted

Dewatering of pits during mining will not be required. Sanitary wastewater will be generated. Toilet facility will be provided with septic tank and soak pit.

Dewatering of pits during mining will not be required. Sanitary wastewater will be generated. Toilet facility will be provided with septic tank and soak pit.

Soil:

Soil cover over the lease is scanty. Soils of area beyond lease are part of Wani series of soils. Ground water table is more than 10 m. Soils are moderately well drained and have slow permeability. Parent material is basalt /weathered basalt. Common use is for cotton and vegetation is neem, palas, mahua etc. Yield of cotton as per present farming practice by most land owners is one to two quintals per ha.

Biological :

Nearest sanctuary Karhandala is at 11 km to E and Tadoba is to NE at 36 km West of the lease. Kavadas Stone Quarry Cluster is not a part of any forest. There is no tree cover over the lease. There is no wild life within 10 km. Seasonal shrubs occur over the lease during monsoon and dry out by month. Only thin soil cover is seen. Further, extraction of Basalt will be from a pit. Only domesticated animals are seen.

Waste :

During mining no waste will be generated from mining operations. Beneficiation is not planned.

Rejects are saleable being minor mineral. Soil will not be generated.

Blasting details:

Permission for blasting from DGMS has to be sought from DGMS before active mining has commenced. Mining cannot start and blasting cannot be carried without permission from DGMS.

There would be three blasts per week. Blasting will be in the pits below ground level.

Peak particle velocity (PPV) will be calculated by U.S. Bureau of Mines formula for PPV

$V = k \{ (D/Q)^{1/3} \}^{-\beta}$, where Q is charge/delay(kg) , D is distance at which vibration is measured, V is PPV in m/sec, k is coefficient depending on rock mass, β is slope of the best line of fit of V vs. $(D/Q)^{1/3}$. It is estimated that PPV will be 33.11 m/sec at 20 m for charge of 13.75 kg proposed in the mining plan. Therefore, any structure like blaster's shed within lease will be unaffected. Also village Kavadasai at 1.46 km will not be affected.

Impacts

Land: There is no soil cover or agriculture. There is no mining or agriculture over the land. Hence there would not be any adverse impact on topography/drainage or on land use or agriculture. Appearance will continue to be as it is. Geological records on these basalt deposits state that considerable stone/basalt quantity would be present in the pit as per approved mining plan and district resource plan. Proved mineable reserves would not have been mined till the conceptual period of mine. Hence backfilling or reclamation of the mined out area is not proposed. Thus, mined out pit will be a “ rainwater” storage structure till mining starts again. It is likely that recharge ground water aquifer takes place. Also reservoir water can be used for miscellaneous purposes like plantation, fish culture etc.

Already some stone quarries are working and some are permanently closed down.

They have not caused any adverse impact on prevailing mine lease environment. A garland drain will be provided to collect runoff during monsoon.

Land use in lease at the end of mining plan period

Area	Existing Land Use in sqm	Conceptual Land Use in sqm
Area under pits	00	120804
Area under dumps	00	00
Undisturbed Area	135200	00
Area under Roads	00	500
Area under Plantation	00	10028
Area under Storage	00	00
Area under Office, Crusher etc.	00	1168

Air :

Ground level concentrations as per ISCST3 model for dispersion of air pollutants for lease area source show that there would not be any adverse impact on ambient air quality .

Water :

There would not be any impact on aquatic environment including hydrology, drainage or quality because a) there is no drain in the lease, b) ground water table will not be intercepted, c) dewatering of pits will not be required and d) Basalt

pit water is suitable for irrigation. Regular monitoring for fluoride content is required.

Noise:

Sources during mine operation would be drilling and blasting. Drillers would be exposed to about 75-80 dB(A). Blasting noise will be short lived. Levels are about 110 -120 dB(A) near the blast. In this case blasting would be below ground level during day time. Pit-walls would absorb the noise waves. Hence, there would not be any adverse impact. Blasters would be given personal protection equipment. There are no structures over the lease

Biological:

There is no sensitive fauna and flora or endangered species in 10 km radius of the lease. Lease is not a part of any forest area. This area is not known for its biodiversity. Project proponent will carry out plantation in scientific way. It will choose local species in consultation with local forest department. Secondly State Fisheries department will be requested to carry out fish culture in abandoned mine pits.

Socioeconomic & health: There will not be any displacement on account of this project because land is in possession of existing and proposed quarry owners. It is proposed to a) prefer employment to deserving local persons in mining related trades like loading/unloading of ore, its gradation, drilling etc. , b) train residents of Kavadas Barad for harvesting rain water, and sanitation practices etc., c) training in fish culture also is one activity which will be useful to local population.

Summary of measures to control of emissions :

DTH Drill Hole Dia.	32 mm.
Depth of Hole	1.5 m.
Spacing of Hole	1 m.
Burden	1.2 m.
Drill Pattern	Linear
Size of Cartridge	200 mm.
Weight of Cartridge	120 gm.
Quantity of Explosive Hole	240 gm.
Powder Factor	6.00
Type of Explosive	Slurry class 2, Nitrate Mixture, Class-6, div-2
Fuse	Electric detonators –class -6 div.3
No. of Holes to be Blasted per Day	200 -250 holes

Activity	Mitigation measures
Hole drilling	Wet drilling; Ø-32mm,Depth-1.5m in Basalt, 2.5 in burden at 1m spacing
Blasting -Small Ø holes in weathered LS	as per D.G.M.S norms Powder factor-6
O.B. generation no top soil	Nil being minor mineral and very scanty soil will be utilized for peripheral plantation.
Transportation	Will be in covered -tipper trucks (75 nos.) over macadamized roads.
Plantation	2160in cluster for next 5 years and in 7.5m safety zone @ 1500trees /ha of safety area
Dewatering of pits	Ground water table will not be intercepted thus dewatering of pits will not be required. Rain water in pits will be used for dust control.

Monitoring schedule :

Env. segment	Parameter	Frequency
Water quality	IS 10500	Monthly
G.W. table	Fluctuation in monsoon & post monsoon period	May & October
AAQ	Particulate matter PM ₁₀ & PM _{2.5}	Monthly
Noise	Equi. noise levels	During drilling & blasting
Vibration	before starting mining	During blasting each month
Health	Pulmonary function, eye sight, audiometry,B.P., etc.	Annual record
Plantation	Survival	Annual survival rate
Data analyses	Efficiency of mitigation measures	Monthly

Plantation :

Saplings will be planted in 7.5-10 m wide safety zone and along the transport roads. One cubic metre pits will be made along the border and will be filled with local soils from lease. Refuse or garbage will be added as per availability. Growth in the first year will be observed. Species will be chosen from the following and depending on availability.

SI.No	Name of the plant (Botanical)	Habit
1	Neem	tree
2	Peepal	tree
3	Vad	tree

Safety measures:

Blasting : Shots will be muffled to avoid flying fragments beyond 10 m. Adequate warning by siren to reach 500 m. Protective shelters for workers. Use of PPE will be compulsory.

Corporate Environmental Responsibility:

A few are mentioned below: Drinking Water Facility at Z.P. School Kavadas Barad
Kitchen Shed at Z.P. School Kavadas Barad

Individual CER is as per policy defined in DSR of Nagpur district.

Economics of project

Stone at Kavadas is of good quality and approved by various agencies. It is the nearest and single source to cater stone requirement for Nagpur district along with three tahsils of Nagpur district. Land is barren. Therefore mining will be in the interest of State revenue and of the people around. Direct and indirect employment to locals is assured.

Lease is an unused land with no tree cover. There are abandoned pits. Water in pits is used. Therefore there would not any damage to environmental quality.

Initiation of mining by Project Proponent will improve revenue to the state without deterioration in environmental quality. On the contrary population in nearby villages will become aware of importance of potable water quality and sanitation.

Openings for indirect employment to locals in plantation, fish culture are possible. Additional water supply source in form of pit-water, recharge of aquifer is likely.