

**JULY
2025**

**Executive Summary for Conducting Public Hearing
FOR**

**“M/s. RKM Sand and Aggregates
Rough Stone and Gravel Quarry over a
total extent of 3.76.67 Ha”**

At

**S. F Nos. 70/4A & 70/5B in Midithepalli Village of
Shoolagiri Taluk, Krishnagiri District, Tamil Nadu
State**

Project Proponent:

**M/s.R.K.M Sand and Aggregates,
Proprietor: Thiru.Ravikumar,
Villa No.126, Adarsh Palm,
Retreat Villas, Devarabisanahalli,
Bangalore, Karnataka – 560 103.**

Project termed under schedule 1(a) Category B₁

Prepared By:

Ecotech Labs Pvt. Ltd.



NABET Accredited EIA Consultant

**48, 2nd Main Road, Ram Nagar South Extension,
Pallikaranai, Chennai - 600100**

EXECUTIVE SUMMARY

1. Project Background:

The Proposed project is in Patta land having total extent area of 3.76.67 Ha, located at S.F.No.70/4A & 70/5B of Midithepalli Village of Shoolagiri Taluk, Krishnagiri District and Tamil Nadu. The category of project is B1, it is a fresh rough stone and gravel quarry in Midithepalli village. The area is situated on gently sloping terrain towards the Eastern side, covered with Rough Stone and Gravel which does not sustain any type of vegetation.

The quarry operation is proposed to carry out with conventional open cast mechanized mining with a 5.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, slurry blasting, loading and transportation.

The quarry operation is proposed up to depth for 47.0m (2.0m Gravel + 45.0m Rough stone). The Total Geological reserve is about 96,630m³ of Gravel and 21,44,580m³ of Rough Stone. The Mineable Reserves are 82,530m³ of Gravel and 12,24,475m³ of Rough stone. Production schedule is proposed an average production of 82,530m³ of Gravel and 12,24,475m³ of Rough stone for Ten years only.

The Mining Plan was approved by the Deputy Director, Geology & Mining, Krishnagiri vide letter Rc.No.768/2024 Mines dated 18.12.2024. There is no CRZ zone, Western Ghats, notified Bird sanctuaries, wild life sanctuaries as per Wild life protection Act 1972, within the radius of 15Km.

2. Nature & Size of the Project

The Rough Stone and Gravel Quarry over an extent of 3.76.67 Hectares land is located Midithepalli Village of Shoolagiri Taluk, Krishnagiri District.

Mineral intends to quarry	: Rough stone and Gravel
District	: Krishnagiri
Taluk	: Shoolagiri
Village	: Midithepalli
S. F. Nos.	: 70/4A & 70/5B
Extent	: 3.76.67 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	12° 46' 07.7657" N to 12° 45' 57.2328" N
2	Longitude	77° 57' 10.9141" E to 77° 57' 01.9504" E
3	Site Elevation above MSL	The altitude of the area is 869m above MSL.
4	Topography	slightly elevated terrain
5	Land use of the site	Patta land
6	Extent of lease area	3.76.67 Ha
7	Nearest highway	MDR 422 – Berigai to Shoolagiri Road – 3.18 Km - SE NH 48 – Hosur to Krishnagiri Road – 9.37 Km - S
8	Nearest railway station	Hosur Railway Station – 14.82 km - SW
9	Nearest airport	Kempagowda International Airport – 54.02 Km - NW
10	Nearest town / city	Town - Shoolagiri – 11.67 km - SE City - Hosur – 13.02 km - W District - Krishnagiri – 37.30 km - SE
11	Rivers / Canal	Ponnaniyar River – 6.09Km - SW
12	Lake	- Muthali lake – 4.67Km – W - Bukkasagaram Lake – 4.76Km- S - Berikai Lake – 5.12Km – N - Peddakullu Lake – 5.86Km – SW - Lake 1 – 5.25Km – SW - Doripalli Lake – 6.28Km – S - Thummanapalli Lake – 6.89Km – SSW - Kelavarapalli Reservoir – 7.14Km – W - Kamandoddi Lake – 8.56Km – S - Kumudapalli Lake – 9.57Km – SW

		• Moranapalli Lake – 9.89Km - SW
13	Hills / valleys	Nil in 15 km radius
14	Archaeologically places	Nil in 15 km radius
15	National parks / Wildlife Sanctuaries	• Cauvery North Wildlife Sanctuary – 25.35 Km – S • Cauvery South Wildlife Sanctuary – 47.26 Km - SW
16	Reserved / Protected Forests	• Meditepalli RF – 1.29Km – N • Berigai RF – 1.73Km – SE • Berigai Extension RF – 2.17Km – NE • Sanamavu RF – 5.91Km – SW • Settupalli RF – 7.37Km – SE
17	Seismicity	Proposed Lease area come under Seismic zone-II (low risk area)
18	Defense Installations	Nil in 15 Km radius

3. Need for the Project

- ❖ The mining activities as proposed are the backbone of all construction and infrastructure projects as the raw material for construction is available only from such mining. The Rough stone extracted will be transported to be Stone crusher of district Krishnagiri.
- ❖ The raw Rough stone as well as the crushed material of stone is in high demand in real estate, construction projects as well as in building construction projects.
- ❖ Rough stone is quarried for producing crusher aggregates to the nearby building contractors, road contractors and nearby villagers.
- ❖ After quarrying the entire reserves mined out, the area will be used as water reservoir to have an artificial recharge to the nearby wells.
- ❖ No damage to the land is caused, no reclamation or back filling is required.

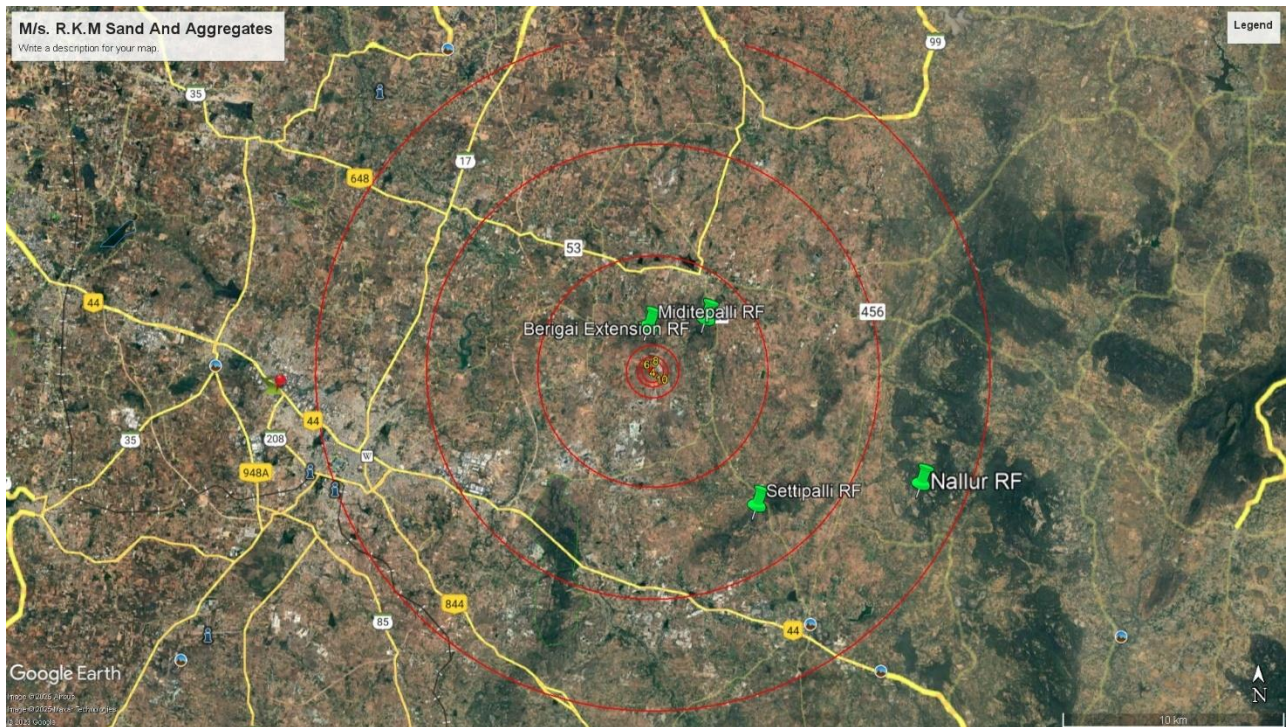


Figure 2: Google Image of the Project Site

4. Charnockite

Charnockite and granitic gneisses are extensively quarried as rough stone which is used as aggregates for construction of building, laying of roads and for preparation of value added products like hollow blocks, pillar stones, M-sand etc. Charnockite occurs as massive bodies, greyish colour, medium to coarse grained, composed quartz, feldspar and orthopyroxene. At places, metamorphic gneissic banding (alternate dark and black colour) in charnockite is noticed. Top portion, it gives gneissic appearance but 1-5m depth below it is typical charnockite of grey colour.

5. Geological resources

The geological resources have been calculated based on the cross-section method.

Table 2. Geological resources

Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m (100%)	Gravel in (Cu.m.)
XY-AB	I	236	150	2			70800
	II	221	141	5	155805	155805	
	III	236	150	5	177000	177000	
	IV	236	150	5	177000	177000	
	V	236	150	5	177000	177000	
	VI	236	150	5	177000	177000	
	VII	236	150	5	177000	177000	
	VIII	236	150	5	177000	177000	
	IX	236	150	5	177000	177000	
	X	236	150	5	177000	177000	
Total					1571805	1571805	70800
XY-CD	I	123	105	2			25830
	II	107	105	5	56175	56175	
	III	123	105	5	64575	64575	
	IV	123	105	5	64575	64575	
	V	123	105	5	64575	64575	
	VI	123	105	5	64575	64575	
	VII	123	105	5	64575	64575	
	VIII	123	105	5	64575	64575	
	IX	123	105	5	64575	64575	
	X	123	105	5	64575	64575	
Total					572775	572775	25830
Grand Total					2144580	2144580	96630

Mineable reserves:

The Mineable reserves are calculated by deducting 7.5m & 10m Safety distance and bench loss. In this regard, since the adjacent area also to be under new lease area, necessary action will be taken to get permission from DGMS in future to comply regulation under (111)3 of MMR.1961.

Table 3. Mineable Reserves

Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Mineable Reserve in Cu.m(100%)	Gravel in (Cu.m.)
XY-AB	I	229	135	2			61830
	II	221	133	5	146965	146965	
	III	229	135	5	154575	154575	
	IV	224	125	5	140000	140000	
	V	219	115	5	125925	125925	
	VI	214	105	5	112350	112350	
	VII	209	95	5	99275	99275	
	VIII	204	85	5	86700	86700	
	IX	199	75	5	74625	74625	
	X	194	65	5	63050	63050	
Total=					1003465	1003465	61830
XY-CD	I	115	90	2			20700
	II	107	86	5	46010	46010	
	III	115	78	5	44850	44850	
	IV	110	68	5	37400	37400	
	V	105	58	5	30450	30450	
	VI	100	48	5	24000	24000	
	VII	95	38	5	18050	18050	
	VIII	90	28	5	12600	12600	
	IX	85	18	5	7650	7650	
Total=					221010	221010	20700
Grand Total=					1224475	1224475	82530

Table 4. Year wise Production Plan

Year	Section	Bench	L (m)	W (m)	D (m)	Volume In M3	Recoverable Reserve in m3 @ 100%	Gravel in m3
I-Year	XY-AB	I	229	135	2			61830
		II	221	133	5	146965	146965	
	TOTAL					146965	146965	61830
II-Year	XY-CD	I	115	90	2			20700
		II	107	86	5	46010	46010	
		III	115	78	5	44850	44850	
	TOTAL					90860	90860	20700
III-Year	XY-AB	III	229	135	5	154575	154575	
	TOTAL					154575	154575	
IV-Year	XY-AB	IV	224	125	5	140000	140000	
	TOTAL					140000	140000	
V-Year	XY-CD	IV	110	68	5	37400	37400	
		V	105	58	5	30450	30450	
	XY-AB	V	219	115	5	125925	125925	
	TOTAL					193775	193775	
VI-Year	XY-AB	VI	214	105	5	112350	112350	
	XY-CD	VI	100	48	5	24000	24000	
	TOTAL					136350	136350	
VII-Year	XY-AB	VII	209	95	5	99275	99275	
	XY-CD	VII	95	38	5	18050	18050	
	TOTAL					117325	117325	
VIII-Year	XY-AB	VIII	204	85	5	86700	86700	
	XY-CD	VIII	90	28	5	12600	12600	
	TOTAL					99300	99300	

IX-Year	XY-AB	IX	199	75	5	74625	74625	
	XY-CD	IX	85	18	5	7650	7650	
	TOTAL					82275	82275	
X-Year	XY-AB	X	194	65	5	63050	63050	
	TOTAL					63050	63050	
Grand Total						1224475	1224475	82530

6. Mining

Opencast mining

The quarry operation is proposed to carry out with conventional open cast mechanized mining with 5.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, blasting, loading and transportation.

Process Description

- The reserves and resource are arrived based upon the Geological investigation.
- Removal of Topsoil by Excavators and directly Loaded into Tippers.
- Removal of Rough Stone by Excavators by Drilling and Blasting.
- Shallow Drilling With Jackhammer of 25.5mm Dia.
- Minimum Blasting With Class 3 Explosives.
- Loading of Rough Stone By Excavators Into Tippers.

7. Water Requirement

Total water requirement for the mining project is 2.0 KLD. Domestic water will be sourced from nearby Midithepalli Village and other water will be sourced from nearby road tankers supply.

Table 5. Water Balance

Purpose	Quantity	Source
Drinking Water	1.0 KLD	Mineral water purchased from approved water vendors available Midithepalli village which is about 1.70 km NE from the project site.
Green belt	0.5 KLD	Other domestic activities through road tankers supply
Dust suppression	0.5 KLD	From road tankers supply
Total	2.0 KLD	

8. Manpower

Total manpower required for the project is approximately 20 persons. The workers will be from nearby villages.

Table 6. Man Power

1.	Skilled	Operators	3 Nos
		Mechanic	2 No
		Blaster / Mat	1 No
2.	Semi – skilled	Drivers	3 Nos
3.	Unskilled	Musdoor / Labors	6 Nos
		Cleaners	2 Nos
		Office Boy	1 No
4.	Management & Supervisory staff		2 Nos
Total			20 Nos

9. Solid Waste Management

Table 7 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	3.6 kg/day	Municipal bin including food waste
2	Inorganic	5.4 kg/day	TNPCB authorized recyclers

As per CPCB guidelines: MSW per capita/day =0.45 kg/day

Table 8 500m Radius Cluster Mine**1) Details of Existing quarries:**

S. No.	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	Rc. No & Date	Lease Period
1.	Thiru.B.Srikar, S/o. Bharathy D.No.25, Shanti Nagar (West), 2 nd Cross, Hosur – 635109.	Shoolagiri & Midithepalli	Rough stone	79	1.86.50	Rc. No. 646/2021/ Mines dated: 08.08.24	08.08.24 To 07.08.34
2.	Thiru.D.Sreenivasalu, S/o. Vekateshwarlu, No. Radha lakshmi Nilayam, Devachandra Main road, Bangalore	Shoolagiri & Midithepalli	Rough stone	80/1 80/2	3.17.08	Rc. No. 1305/2018/ Mines dated: 20.12.22	20.12.22 to 19.12.32
3.	Thiru.Venkat reddy, S/o. (Late) Uthama Reddy, Kolar Taluk, Uddanahalli, Chakkarasanahalli, Karnataka	Shoolagiri & Midithepalli	Rough stone	81/2 82/1	2.05.92	Rc. No. 1308/2018/ Mines dated: 31.10.2022	31.10.22 to 30.10.32

2) Details of Expired/Old Quarries:

S.No.	Name of the lessee	Village	S.F.No	Extent	GO No. & Date	Lease period
1.	M/s. Sarva Infra Pvt. Ltd, 540, 3 rd floor, CMH Road, Indira Nagar, Bangalore.	Shoolagiri & Midithepalli	70/1B, 70/1C	4.05.0	Rc.No. 09/2014/ Mines Dated:26.10.2015	28.10.2015 to 27.10.2020

3) Details of Proposed Quarries

S. No.	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease period
1.	M/s.R.K.M Sand and Aggregates, Proprietor: Thiru.Ravikumar, Villa No.126, Adarsh Palm, Retreat Villas, Devarabisanahalli, Bangalore, Karnataka – 560 103.	Shoolagiri, Midithepalli	Rough stone	70/4A & 70/5B	3.76.67	-	Instant proposal

The Total extent of the Existing / Lease expired / Proposed quarries are 14.91.17 Ha.

10. Land Requirement

The total extent area of the project is 3.76.67 Ha, Patta land in Midithepalli Village of Shoolagiri Taluk, Krishnagiri District.

Table 9 Land Use Breakup

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under Quarrying	Nil	3.09.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	Nil	0.01.0
4.	Green Belt	Nil	0.65.67
5.	Unutilized Area	3.76.67	Nil
	Total	3.76.67 Ha	3.76.67 Ha

11. Human Settlement

There are no habitations within 300m radius. There are villages located in this area within 5km radius of the quarry.

Table 10 Habitation

SL. NO.	DIRECTION	VILLAGE	POPULATION	DISTANCE
1	NW	Alnatham	327	1.50 Km
2	E	Athetti	180	1.50 Km
3	SE	Mensandoddi	310	1.81 Km
4	SW	Venkatesapuram	2873	1.60 Km

12. Power Requirement

The Rough Stone Quarry project does not require huge water and electricity for the project.

16 Litre diesel per hour for excavator for mining and loading for Rough stone needed.

13. Scope of the Baseline Study

This chapter contains information on existing environmental scenario on the following parameters.

1. Micro – Meteorology
2. Water Environment
3. Air Environment
4. Noise Environment
5. Soil / Land Environment
6. Biological Environment
7. Socio-economic Environment

13.1 Micro – Meteorology

Meteorology plays a vital role in affecting the dispersion of pollutants, once discharged into the atmosphere. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn only from long-term reliable data.

- i) Average Minimum Temperature : 17 °C
- ii) Average Maximum Temperature : 39 °C
- iii) Average Annual Rainfall of the area: 968 mm

13.2 Air Environment

Ambient air monitoring was carried out on a monthly basis in the surrounding areas of the Mine Lease area to assess the ambient air quality at the source. To know the ambient air quality at a larger distance i.e., in the study area of 5 km. radius, air quality survey has been conducted at 5 locations. Major air pollutants like Particulate Matter (PM₁₀), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂) were monitored, and the results are summarized below.

The baseline levels of PM₁₀ (67-41 µg/m³), PM_{2.5} (29-15 µg/m³), SO₂ (20-5 µg/m³), NO₂ (25-10 µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from April 2025 to June 2025.

13.3 Noise Environment

The maximum Day noise and Night noise were found to be 66 dB(A) and 53 dB(A) respectively in Government High School, Bukkasagaram. The minimum Day Noise and Night noise were 41 dB(A) and 36 dB(A) respectively which was observed in project site. The observed values are all well within the Standards prescribed by CPCB.

13.4 Water Environment

- The average pH ranges from 7.11 – 8.06.
- TDS value varied from 412 mg/l to 1054 mg/l
- Hardness varied from 232 to 521 mg/l
- Chloride varied from 42.2 to 302 mg/l

13.5 Land Environment

The analysis results shows that the majority of soil in the project and surrounding area is slightly alkaline in nature and pH value ranges from 7.25 to 8.56 with organic matter 0.15 to 0.75%. The concentration of Nitrogen, Phosphorus & Potassium has been found to be in good amount in the soil samples.

13.6 Biological Environment

The proposed Mining lease area is mostly dry barren ground with small shrubs and bushes. No specific endangered flora & fauna exist within the mining lease area.

14. Rehabilitation/ Resettlement

- The overall land of the mine is Patta land. There is no displacement of the population within the project area and adjacent nearby area. Social development of nearby villages will be considered in this project.
- The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement.

15. Greenbelt Development

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. The Green belt has been recommended as one of the major components of the Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like Neem, Pungam, Naval etc will be planted along the lease boundary and avenues as well as over non-active dumps at a rate of 100 trees per annum with interval 5m.
4. The rate of survival expected to be 80% in this area

Table.11 Plantation/ Afforestation Program

Name of species proposed	Survival	No of species
Neem, Pungam, Poovarasu, Naval, Mantharai, Arasa Maram, Magizham, Vilvam, vaagai, Marudha maram, Thandri, Poovarasu, Manjadi, Usil, Aathi, Panai, Uzha, Illuppai, Eachai, Vanni Maram	80%	1885
Total		1885

16. Anticipated Environmental Impacts

16.1 Air Environment and Mitigation Measures

1. Water sprinkling will be done on the roads & unpaved roads.
2. Proper mitigation measures like water sprinkling will be adopted to control dust emissions.
3. Plantation will be carried out on approach roads, solid waste site & nearby mine premises.
4. To control the emissions regular preventive maintenance of equipment will be carried out.

16.2 Noise Environment and Mitigation Measures

1. Periodical monitoring of ambient noise will be done as per CPCB guidelines.
2. No other equipment except the transportation vehicles and excavator for loading will be allowed.
3. Noise generated by these equipments shall be intermittent and does not cause much adverse impact

17. Responsibilities for Environmental Management Cell (EMC)

The responsibilities of the EMC include the following:

- i. Environmental Monitoring of the surrounding area
- ii. Developing the green belt/Plantation
- iii. Ensuring minimal use of water
- iv. Proper implementation of pollution control measures

18. Environmental Monitoring Program

A monitoring schedule with respect to Ambient Air Quality, Water & Wastewater Quality, Noise Quality as per Tamil Nadu State Pollution Control Board (TNPCCB), shall be maintained.

19. Project Cost

The total project cost is **Rs 80,50,000/-** for deployment of machinery and creation of infrastructural facilities like approach road, mine office / Workers Shed, First Aid Room etc., including electrifications and water supply.

Table 12 Project Cost details

S. No.	Description	Cost
1	Fixed Asset Cost	Rs.40,50,000/-
2	Operational and Fencing Cost	Rs. 40,00,000/-
	Total	Rs. 80,50,000/-

20. Corporate Environmental Responsibility

The Corporate Environment Responsibility (CER) fund will be provided to the below activity.

Table 13 CER Cost

S.No.	CER Activity	CER value (Rs)
1.	PUPS – Midithepalli Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu State.(65 Students) Providing facilities are: ➤ Two Classroom Building, Staff toilet, Prayer assembly hall with stage, Dining hall with handwash ➤ R.O Water Facility ➤ Smart Classroom facility ➤ Greenbelt Development inside and around the campus – 50 No's. ➤ Environmental, Social Awareness and General Knowledge Books in Tamil Language ➤ Hygienic Toilet Facility and maintenance upto lease period.	3,00,000/-
2.	PUPS – Athimugam Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu State. (164 Students) Providing facilities are: ➤ Two Class room Building, Staff toilet, Prayer assembly hall with stage, Dining hall with handwash ➤ R.O Water Facility ➤ Greenbelt Development inside and around the campus – 50 No's. ➤ Environmental, Social Awareness and General Knowledge Books in Tamil Language	2,00,000/
Total		5,00,000

21. Benefits of the Project

- There is a positive impact on socioeconomics of people living in the villages. Mining operations in the subject area has a positive impact by providing direct and indirect jobs opportunities.
- The project is environmentally compatible, financially viable and would be in the interest of the construction industry thereby indirectly benefiting the masses.
- Quarrying in this area is not going to have any negative impact on the social or cultural life of the villagers in the nearby vicinity.

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