SUMMARY

OF

DRAFT EIA/EMP REPORT

FOR

ROUGHSTONE AND GRAVEL QUARRY

EXTENT – 3.025 HA

YEAR	ROUGH STONE IN M3	GRAVEL IN M3	DEPTH(m)
1 -5	1,92,130	94,140	26
6 -10	1,75,440	29,784	46
1 -5	3,67,570	1,23,924	46

VILLAGE – KONGANAKKURICHI, TALUK – ARUPPUKOTTAI

DISTRICT – VIRUDHUNAGAR , STATE – TAMILNADU

PROJECT PROPONENT

THIRU K.BALAMURUGAN

D.No.3/416, Ramanaickenpatti, Chettikuruchi Post,
Aruppukottai Taluk Virudhunagar-626134..

CONSULTANT

CREATIVE ENGINEERS & CONSULTANTS

Creating Possibilities

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SEPTEMBER- 2022

SUMMARY

1.1 INTRODUCTION:

Thiru K.Balamurugan proposes to operate a **Rough Stone and Gravel Quarry** at Survey No. 104/1A, 104/1B1, 104/1B2, 104/2A, 104/2B, 104/3, 104/4A1, 104/4A2, 104/4B, 104/4C, 104/5A, 104/5B, 104/6A, 104/6B, 104/7A, 104/7B, 104/8A, 104/8B, 104/8C, 104/8D& 104/8E over 3.0250 Ha In Konganakkurichi Village, Aruppukottai Taluk, Virudhunagar District, Tamilnadu. and has initiated action towards obtaining environmental clearance.

It is proposed to mine a total of 3,67,570 m^3 of Rough Stone and 1,23,924 m^3 of Gravel upto a depth of 46m for the period of ten years. The Proposed Production for the first five years is 1,92,130 m^3 of Rough Stone and 94,130 m^3 of Gravel upto a depth of 26m. The impact assessment and management plan is studied for the peak production of the mine lease period and the entire area of quarry operation and can be construed as applicable for the entire lease period.

Although the individual lease area of this project is less than 5 Ha, the other existing quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing. In this cluster, apart from Thiru K.Balamurugan, Tmt.T.Muthulakshmi and Thiru K.Bharathiraja have also proposed for new mine leases and applied for Environmental clerance. As such Common EIA for the 3 proposed projects falling in the cluster along with separate assessment of impacts and EMP for each project is carried out.

This report is prepared for the Rough Stone and Gravel Quarry of K.Balamurugan.

1.2 STATUTORY APPROVALS:

Table 1:Statutory Approvals

1.	Precise Area Communication Letter	KV1/030/2021, dated 23.11.2021
2.	Mining Plan Approval	KV1/030/2021, dated 13.12.2021
3.	Terms of Reference	SEIAA-TN/F.No.8996/SEAC/ToR-1156/2022 06.06.2022

Based on the conditions of Precise Area Communication letter,7.5m safety distance is left for the nearby quarries, 50m safety distance for nearby kanmai in S.F.No.111. As per TOR Condition, the draft EIA/EMP report for the Rough Stone and Gravel Quarry of Thiru Balamurugan is prepared. Salent details of the report is given below.

2.1 SITE DESCRIPTION:

Table 2: Site Details

<table>
<tr><th>S.No</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1</td><td>Name of the Project</td><td>Rough Stone and Gravel Quarry of Thiru K.Balamurugan</td></tr>
<tr><td>2</td><td>Location of the project</td><td>Konganakkurichi village, Aruppukottai Taluk, Virudhunagar District, Tamilnadu</td></tr>
<tr><td>3</td><td>Survey No.</td><td>104/1A, 104/1B1, 104/1B2, 104/2A, 104/2B, 104/3, 104/4A1, 104/4A2, 104/4B, 104/4C, 104/5A, 104/5B, 104/6A, 104/6B, 104/7A, 104/7B, 104/8A, 104/8B, 104/8C, 104/8D& 104/8E</td></tr>
<tr><td>4</td><td>Proposed production</td><td>
<table>
<tr><th>Years</th><th>Roughstone(m3)</th><th>Gravel (m3)</th></tr>
<tr><td>1 -5</td><td>1,92,130</td><td>94,140</td></tr>
<tr><td>6 -10</td><td>1,75,440</td><td>29,784</td></tr>
<tr><td>Total</td><td>3,67,570</td><td>1,23,924</td></tr>
</table>
</td></tr>
<tr><td>5</td><td>Latitude & Longitude</td><td>Latitude: 09^0 28' 39.40" to 09^0 28' 46.00" N
Longitude: 78^0 10' 50.70" to 78^0 10' 58.15" E</td></tr>
<tr><td>6</td><td>Mining Lease area</td><td>3.025 Ha</td></tr>
<tr><td>7</td><td>Type of land</td><td>Private Patta land</td></tr>
<tr><td>8</td><td>Mine site topography</td><td>Gentle plain terrain, dry lands.</td></tr>
<tr><td>9</td><td>Accessibility</td><td>The lease area can be approached from panchayat road from Kalloorani - Aladipatti which leads to SH-47.</td></tr>
<tr><td>10</td><td>Nearest Highway</td><td>NH-45B – 8.0Km (SW)</td></tr>
<tr><td>11</td><td>Nearest major Railway station</td><td>Aruppukottai RS – 9km - NW</td></tr>
<tr><td>12</td><td>Nearest Airport</td><td>Madurai – 60Km – NE</td></tr>
<tr><td>13</td><td>Nearest major water bodies</td><td>• Kanmai Adjacent to lease area - E-50 m safety has been left.
• Odai -125m E,
• Odai -540m –SE,
• Kanmai 900m-S,</td></tr>
</table>

S.No	Particulars	Details
		• Gundar River – 6.0 km (NE).
14	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Nil within 10 Km radius
15	Local Places of Historical and Tourism Interest	Nil within 10 Km radius
16	Reserved / Protected Forests	Nil within 10 Km radius
17	Seismic Zone	Zone – II (Least Active)

Table 3: Technical Description

<table>
<tr><th>S.No</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Geological reserve</td><td>Roughstone – 12,30,080 cum , Gravel- 1,84,512 cum</td></tr>
<tr><td>2.</td><td>Mineable reserve</td><td>Roughstone – 3,67,570 cum , Gravel – 1,23,924cum</td></tr>
<tr><td>3.</td><td>Method of Mining</td><td>Open cast mechanized mining method with drilling, blasting, excavation, loading and transportation of Roughstone to needy buyers.</td></tr>
<tr><td>4.</td><td>Production</td><td>
<table>
<tr><th>YEAR</th><th>Rough Stone m³</th><th>Gravel in m³</th></tr>
<tr><td>I</td><td>38,200</td><td>29,016</td></tr>
<tr><td>II</td><td>40,650</td><td>23,076</td></tr>
<tr><td>III</td><td>37,760</td><td>14,016</td></tr>
<tr><td>IV</td><td>37,760</td><td>14,016</td></tr>
<tr><td>V</td><td>37,760</td><td>14,016</td></tr>
<tr><td>Total 1 to 5</td><td>1,92,130</td><td>94,140</td></tr>
<tr><td>Total 6 to 10</td><td>1,75,440</td><td>29,784</td></tr>
<tr><td>Total 1 to 10</td><td>3,67,570</td><td>1,23,924</td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>Lease Period</td><td>10 Years</td></tr>
<tr><td>6.</td><td>Waste Generation and Management</td><td>Since the entire material will be used there will be no waste generation</td></tr>
<tr><td>7.</td><td>Ultimate Mine depth</td><td>First 5 years – up to 26m
Next 5 years - up to 46m</td></tr>
<tr><td>8.</td><td>Manpower</td><td>Direct – 15, Indirect – 50</td></tr>
<tr><td>9.</td><td>Water Requirement & source</td><td>Total water – 10 KLD
Will be procured from outside agencies initially. Later, water collected in the mine pit will be used to meet the needs.</td></tr>
<tr><td>10.</td><td>Power Requirement</td><td>All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.</td></tr>
</table>

S.No	Particulars	Details
11.	Site services	Mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.
12.	Project cost	Rs. 72,79,075/-
13.	CER cost	Rs.5.0 Lakhs

3.1 EXISTING ENVIRONMENTAL SCENARIO:

The studies and data collection have been carried out systematically and meticulously as per relevant IS codes, CPCB and MoEF&CC guidelines and as per approved ToR during **Summer Season (March 2022 to May 2022)** For the purpose of this study, the area has been divided into two zones, namely, core and buffer zones. Core zone is considered as the total lease area of the cluster, while buffer zone encompasses an area of 10 km radius distance from the periphery of core zone. Based on 2011 census data, in the 10km radius there are 65 Rural villages from Three Taluks namely Aruppukottai, Tiruchuli, Kamuthi and 3 urban areas of Aruppukottai Taluk namely Aruppukottai (M), Palayampatti (CT), Athipatti (CT) belonging to Virudhunagar and Ramanathapuram District.

Table 4: Social, Economic & Demographic Profile of The Study Area

Details	Population	Percentage
A. Gender-wise distribution		
Male Population	102703	49.96
Female Population	102888	50.04
Total	**205591**	**100**
B. Caste-wise population distribution		
Scheduled Caste	18380	8.94
Scheduled Tribes	222	0.11
Other	186989	90.95
Total	**205591**	**100**
C. Literacy Levels		
Total Literate Population	157711	76.70
Others	47880	23.30
Total	**205591**	**100**
D. Occupational structure		
Main workers	87259	42.40
Marginal workers	10477	5.10
Total Workers	**97736**	**47.50**
Total Non-workers	**107855**	**52.50**

Details	Population	Percentage
Total	**205591**	**100**

3.2.1 EXISTING ENVIRONMENTAL QUALITY:

Table 5: Baseline Data

A) AMBIENT AIR QUALITY	**Monitoring Location –** 6 locations		
PARAMETER	**RESULT (µg/m3)**		***LIMIT (µg/m3)**
Location	**Core Zone**	**Buffer Zone**	
Particulate Matter (Size <10 µm)	55.1 – 73.8	40.4 – 68.6	100
Particulate Matter (Size <2.5 µm)	25.6 – 34.3	18.4 – 30.8	60
Sulphur Dioxide (as SO_2)	4.9 – 7.2	3.8 – 6.9	80
Nitrogen Dioxide (as NO_2)	7.7 – 12.7	5.4 – 11.1	80
Conclusion: The existing Ambient Air Quality levels for PM10, PM2.5, SO2 and NO2, are within the NAAQ standards prescribed CPCB limits of 100 µg/m3, 60 µg/m3, 80 µg/m3 & 80 µg/m3. The CO values in all the locations were found to be below detectable limit. Silica values in the study area are found to be below detectable limit. (Detection limit – 0.05 mg/m3)			
B) WATER QUALITY	**Monitoring Location –** 5 locations		
PARAMETER	**Result**		***LIMIT (µg/m3)**
pH at 25 ˚C	7.71 – 8.36		**6.5-8.5**
Total Dissolved Solids, mg/L	328 – 1012		**2000**
Chloride as Cl-, mg/L	72.40 – 460		**1000**
Total Hardness (as CaCO3), mg/L	198 – 412		**600**
Total Alkalinity (as CaCO3), mg/L	173– 300		**600**
Sulphates as SO42-, mg/L	23 – 226		**400**
Iron as Fe, mg/L	BDL(D.L - 0.01) – 0.06		**0.3**
Nitrate as NO3, mg/L	BDL(D.L – 1.0) – 3.04		**45**
Fluoride as F, mg/L	0.12 – 0.35		**1.5**
Conclusion: The water quality of ground water is found to be within the prescribed Permissible limits of IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications.			
C) NOISE LEVELS	**Monitoring Location –** 6 locations		
PARAMETER	**RESULT dB(A)**		***LIMIT (µg/m3)**
	Day Equivalent	**Night Equivalent**	
Core Zone	50.6	45.5 – 49.2	**90**
Buffer Zone	39.0	38.6 – 43.1	**Day Equivalent - 55dB(A), Night Equivalent - 45dB(A)**
*Permissible noise for industrial workers as laid down by CPCB (at 8 hrs Exposure Time). While comparing with the MoEF&CC Norms, the monitored ambient noise levels are generally within the limit values.			
D) SOIL QUALITY	**Monitoring Location –** 3 locations		
PARAMETER	**Range of values**		
pH	6.46 – 7.22		
Electrical Conductivity (µmho/cm)	23.3 – 122.4		
Organic matter (%)	0.9 – 1.24		
Total Nitrogen (mg/kg)	128 – 142		

Phosphorus (mg/kg)	1.3 – 2.14
Sodium (mg/kg)	345 - 420
Potassium (mg/kg)	637 – 756
Soil is of clay loam and sandy clay loam type.	

3.2.2 LAND EVIRONMENT:

Land use pattern study carried out through remote sensing satellite data around the 10km buffer zone shows that 9.58 % of the study area is agriculture land and 46.47 % are fallow land. Land with scrub constitutes 28.22 %, lands without scrub constitute 9.96% and waterbodies & others constitute 5.77%.

3.2.3 BIOLOGICAL ENVIRONMENT:

Flora: The lease area is a non-forest, private land. Major part of lease area is barren fallow land with few bushes (Prosopis juliflora) and grasses. The buffer zone is dominated by species like Prosopis juliflora, Azadirachta indica, Borassus flabellifer, Acacia nilotica, Albizia lebbeck, Acacia leucophloea, Acacia auriculiformis, etc.

Fauna: There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals are commonly found. There is no Schedule I species in the core & buffer zone.

3.2.4 HYDROLOGICAL STUDY:

A Hydro Geological study for the Roughstone and Gravel Quarry was carried out by Dr.S. Selvam, V.O.Chidambaram College. Based on the available information and the geophysical investigations the study concluded that the project area is considered to have poor groundwater potential. Besides, the mining area consists of hard compact rock, no major water seepage within the mine is expected. There is no water seepage noticed in to the already quarried pits situated nearby the proposed quarry area. Hence, the quarrying up to the proposed depth may not have any adverse impact in the area over ground water conditions.

In the study area subsurface groundwater is restricted to shallow depth within the weathered rock formation only. There is a kanmai adjacent to the lease area on the eastern side for which 50m safety distance has been left. During the study it is observed to be dry and rock formation exposures are observed inside the tank. The intervening mining and the pond area is infested with hard rocky formation which are compact with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such no major water seepage

within the mine is expected from the periphery. As such no adverse impact on the nearby surface water bodies are also expected.

4.1 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This is a proposed project and Semi – Mechanized Open Cast mining will be carried out to quarry out Rough Stone, & Gravel. The identified impacts due to this mine during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc.

4.1.1 AIR ENVIRONMENT:

The principal sources of air pollution in general due to mining and allied activities will be Excavation, Drilling, Movement of HEMM such as Excavators, tippers etc., Loading and unloading operation and transportation. In case of this mine, the following measures will be adopted to control impact on the air quality due to mining operations in the lease area:

- Regular wetting of transport road using mobile water tanker.
- Wet drilling / Covering of drill holes with wet clothes
- Proper maintenance of roads.
- Avoiding overloading of tippers & Transportation of material by tarpaulin covered trucks
- Proper maintenance of HEMM to minimize gaseous emission
- Setting up of tyre washing facility in the lease area exit.
- Vehicular emission tests with digital smoke meter.
- Provision of tin sheet/ green netting around the lease periphery on all sides.
- Development of green belt/ plantation in various areas within the mine lease area etc.

By adoption of all these measures, no adverse impact on air quality is envisaged due to this proposed opencast mining operation.

The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model.

The impact on air quality due to the proposed project estimated using computer dispersion model (AERMOD) show that the resultant added concentrations with baseline figures even at

worst scenario, the values of ambient air quality with respect to PM_{10} are in the range of 52.6 μg/m3 to 76.8 μg/m3 and with respect to PM2.5 are in the range of 24.5 μg/m3 to 35.3 μg/m3 which are within the statutory limits in each case.

For preservation of environment in this mine strict enforcement of management schemes will be undertaken for taking corrective actions, as needed. By adopting the effective implementation of all the mitigative measures, no adverse impact on Air quality due to the mining operation in this lease area is expected.

4.1.2 WATER ENVIRONMENT:

The total water requirement for this project will be 10.0 KLD. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose.

The domestic effluent to be generated from the project will be collected in septic tank with soak pits arrangements. This being a mining project there will not be any process effluent. Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or waste dumps.

The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users.

There is a kanmai adjacent to the lease area on the eastern side for which 50m safety distance has been left. Earthen bund will be formed on the eastern side lease periphery and tin sheet will be erected. Plantation will be carried out in the safety zone area. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the nearby water bodies due to project operations.

4.1.3 NOISE ENVIRONMENT:

During mining operation there will be noise generation due to working of excavators, movement of vehicles, etc. However, it will be felt near the active working area only and at away from its source it will get reduced. There will also be attenuation due to vegetation, tin sheet/ green netting to be erected by the proponent all around the lease and as such there will not be any adverse noise propagation outside the lease boundary Due to natural attenuation effects, by proper green belt development, design / maintenance of machines, etc., the impact on noise levels will be negligible and are expected to be well within the prescribed limits.

4.1.4 VIBRATION:

To reduce ground vibratory conditions, various control measures will be implemented such as keeping PPV below 10mm/s for 8-25hz frequency range, formulating drilling and charging pattern with less explosive charge, initiating sequence and using NONEL, carrying out blasting with minimum charge per delay, avoiding blasting during strong winds etc. By adoption of above measures, it will be ensured that the ground level vibration due to blasting are maintained within the limits prescribed by DGMS, Dhanbad at the mining areas vide Circular No. 7 dated 29 -08-1997. Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance. SOP for blasting will be followed to ensure no adverse impact due to blasting vibration on the nearby region.

4.1.5 IMPACT ON LAND ENVIRONMENT:

At the end of the 5 year period, 1.63.0 Ha will be used as mined out area at 26m depth. In the remaining 6th to 10th the mined out area will be 2.13Ha upto 46m depth. Ultimately the entire mined out area will be left as water body. 0.04.0Ha will be the mine roads, 0.01.0 ha will be infrastructure, 0.84.5 Ha will be covered with vegetation. Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the rainwater harvested in the mined out void shall be utilized.

4.1.6 BIOLOGICAL ENVIRONMENT:

Other than clearing the shrubs and bushes withthin the lease area, no clearance of major vegetation is involved. Necessary mitigative measures like dust suppression, proper maintenance of equipment's, greenbelt and plantation etc., will be carried out to prevent dust generation & any further impact on the vegetation or agricultural activity nearby. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area

4.1.7 SOCIO ECONOMIC ENVIRONMENT:

The entire lease area is private patta land. There are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

The mining operations in the proposed mine will provide the following socio-economic benefits:

- Direct Employment for about 15 persons.
- Besides through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service-related activities connected with the project operations.
- Benefit to State and central exchequer by way of royalty, taxes.

Towards the socio-economic development of the surrounding area, the proponent has earmarked an amount of Rs.5.0 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner in the nearby Government school. In consultation with the locals based on the need & priority it will be implemented.

By carrying out systematic and scientific mining and implementing all the environmental mitigative measures it will be ensured that there will be no adverse impact on this front.

4.1.8 IMPACT ON LOCAL LOGISTICAL SYSTEM DUE TO PROJECT:

The material mined out from this lease area will be directly transported to the required customers. During the project operations, there will be 5 trips/hr. The transport route will be properly maintained to absorb this traffic due to this project. The following mitigative measures are suggested for mitigation of adverse impacts on the logistical aspect of the project:

- ❖ Water sprinkling on mineral in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- ❖ Plantation on either side of the transport road in consultation with the concerned department.
- ❖ Proper maintenance of transport road.
- ❖ Proper maintenance of transport vehicles.
- ❖ Avoiding overloading of material.
- ❖ Covering of loaded vehicles with tarpaulins sheet.
- ❖ Limiting of speed

4.1.9 WASTE MANAGEMENT:

There is no process effluent generation from this mine. Hence no liquid waste is generated. Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

5.1 ENVIRONMENTAL MONITORING PROGRAME:

Regular, systematic and sustained programme schedules for implementation and monitoring of various control measures are devised with clear cut guidelines of various concerned plans for keeping a continuous surveillance on the various environmental quality parameters in the area. The Mines Manager in the mine project site will be directly responsible for various environmental activities in the mine and will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. Towards EMP measures, Rs.15.40 lakhs is allocated under capital cost. Besides, Rs.13.60 lakhs per annum is allocated as recurring cost. The baseline monitoring carried out for this project reflects the cumulative impact of this existing quarry. a

6.1 CUMULATIVE IMPACT STUDY:

The baseline monitoring carried out for this project reflects the cumulative impact of the existing quarries and other activities. future proposal in the cluster is studied and cumulative impact due to projects in the cluster is given in the respective EIA/EMP reports.

Combined cumulative computer Air Quality Model simulations carried out show that the resultant added concentrations with baseline figures with respect to PM_{10} is in the range of 52.6 $\mu g/m^3$ to 82.7 $\mu g/m^3$ and with respect to $PM_{2.5}$ are in the range of 24.5 $\mu g/m^3$ to 38.7 $\mu g/m^3$ which are within the statutory stipulations in respective case..

It is observed that the peak incremental concentration for PM_{10}, $PM_{2.5}$ is occurring very near the source. At away from the source the values are getting drastically reduced due to dispersion effects no effect is observed. As such no adverse impact on Ambient air quality is envisaged. Cumulative Noise modeling has been carried out to determine the post project noise levels due to the mining operations of the proposed quarries and it is seen that that the post project concentration in the nearby areas are within the statutory limits of 55dB(A).

For other environmental attributes also, by implementing the mitigative measures as suggested in the report continuously and rigorously, no adverse impact on the surround environment is expected on the cumulative basis also.

7.1 CONCLUSION:

By systematic and scientific mining adhering to all the statutory norms and enforcing and strictly implementing the above said mitigation measures mentioned in this report, no adverse impact is envisaged. The proposed mining project will benefit this region in the fields of potential employment opportunities, improved income for local people, improved social welfare facilities in respect of education, medical healthcare systems, etc. in its own way and also revenue to Government through royalty, taxes etc. Besides, it will meet the raw material requirement of the construction industry also.

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