

JUNE

2023

**Executive Summary for Conducting Public Hearing
FOR**

**“Thiru.V Sekar Rough Stone Quarry over a total
extent of 2.30.0 Ha”**

at

**S.F.No. 270 (Part-1) of Venkatesapuram Village,
Shoolagiri Taluk, Krishnagiri District, Tamilnadu State**

Project Proponent:

Thiru V. Sekar
S/o.Venkatesappa,
D.No.4/165/B,
Karukondapalli Village,
Bayaramangalam Post
Denkanikottai Taluk,
Krishnagiri - 635 113.
Mob: No: 9843333943.

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 a quarrying of Rough Stone with a total extent area is 2.30.0 Ha, It is a Government Poramboke Land in Venkatesapuram village, Shoolagiri taluk, Krishnagiri district. It is a proposed Rough Stone quarry. The. The category of the project is B1 (cluster), the lease area exhibits Undulated area gently sloping towards South Eastern side covered with Rough Stone.

The quarry operation is proposed to carry out with conventional Opencast – semi mechanised method with 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 of 51m (2.0m Topsoil + 49.0m Rough Stone) Surface Ground Level Above-10m and Surface Ground Level Below - 41m for the period of (Five) 5 Years only. Geological Resources is estimated at 9,51,601 m³ of Rough stone up to a depth of 51.0m (Max). The Mineable Reserves is 4,97506 m³ of Rough Stone up-to the depth of 51.0 meters. Production Schedule is proposed an average production of 99,501m³ of Rough Stone for the period of five years. The fresh Mining Plan was approved by Deputy Director, Geology and Mining, Krishnagiri vide letter Roc No.81/2016/Mines-1 dated: 25.04.2016 for a period of 2016-2017 to 2020-2021. Accordingly, the Lessee had obtained Environmental Clearance from SEIAA-TN vide Lr. No. SEIAA- TN/F.No.5355/1(a)/EC.No:3269/2016 dated 09.07.2016. The Mining Lease was granted in Rc.No.81/2016/Mines dated:09.08.2016 for the period of Ten years. The lease deed was executed on 24.08.2016. The lease will expire on 23.08.2026. Hence, Scheme of Mining is prepared and the same was approved by Geology and Mining department of Krishnagiri district letter vide no.Roc.No:668/2021 dated: 23.04.2021. The project area does not fall in Hill Area Conservation Authority region.

There is no interstate boundary, CRZ zone, Western Ghats, notified Bird sanctuaries, wild life sanctuaries as per Wild life protection Act 1972, within the radius of 15Km.

PRESENT QUARRY ACTIVITY

The Quarrying activity has been proposed for Rough Stone in Government Poramboke Land S.F.Nos. 270 (Part-1) over an extent of 2.30.0 Ha in Venkatesapuram village, Shoolagiri taluk, Krishnagiri district.

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The mining operations are done by opencast mechanized methods with jack hammer drilling and blasting, hydraulic excavators are used for loading the Rough stone from pithead to the needy crushers.

2. Nature & Size of the Project

The Rough Stone Quarry over an extent of 2.30.0 Ha land is located at Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District.

Mineral intends to quarry	: Rough stone
District	: Krishnagiri
Taluk	: Shoolagiri
Village	: Venkatesapuram
S. F. Nos.	: 270(Part-1)
Extent	: 2.30.0 Ha

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	Latitude : N 12 ° 43' 58.7014" to N 12 ° 44' 3.1722"
2	Longitude	Longitude : E 77° 56' 12.8213" to E 77° 56' 8.3746"
3	Site Elevation above MSL	826 m MSL
4	Topography	Undulated
5	Land use of the site	Government Poramboke Land
6	Extent of lease area	2.30.0 Ha
7	Nearest highway	NH 7/NH 44 (Bangalore – Madurai Road) – 5km, SW
8	Nearest railway station	Hosur Railway Station – 13.0 km, W
9	Nearest airport	Chennai Airport – 260km, E
10	Nearest town / city	Town - Shoolagiri - 10 Km -SE City - Krishnagiri – 38km, SE District - Krishnagiri - 38 Km - SE
11	Rivers / Canal / Dam	<ul style="list-style-type: none"> • Ponnaiyar River – 4km - W
12	Lake	<ul style="list-style-type: none"> ❖ Muthali lake – 4.68 km NNW ❖ Pedakulla Lake – 4.53 km, NW ❖ Kasavugattu Lake – 8.38km, W ❖ Tippalam Lake – 7.88km, W ❖ Kamandoddi Lake – 5km, S ❖ Old Lake – 5.92km, S ❖ Konerapalli lake – 7.12km, SSE ❖ Chapadi lake – 7.99km, SSE ❖ Kalavarapalli Reservoir – 7.98km, SW
13	Hills / valleys	Nil in 15 km radius
14	Archaeologically places	Nil in 15 km radius
15	National parks / Wildlife Sanctuaries	Nil in 15 Km radius
16	Reserved / Protected Forests	<ul style="list-style-type: none"> • Sanamavu Reserve Forest – 5.64km, S
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.

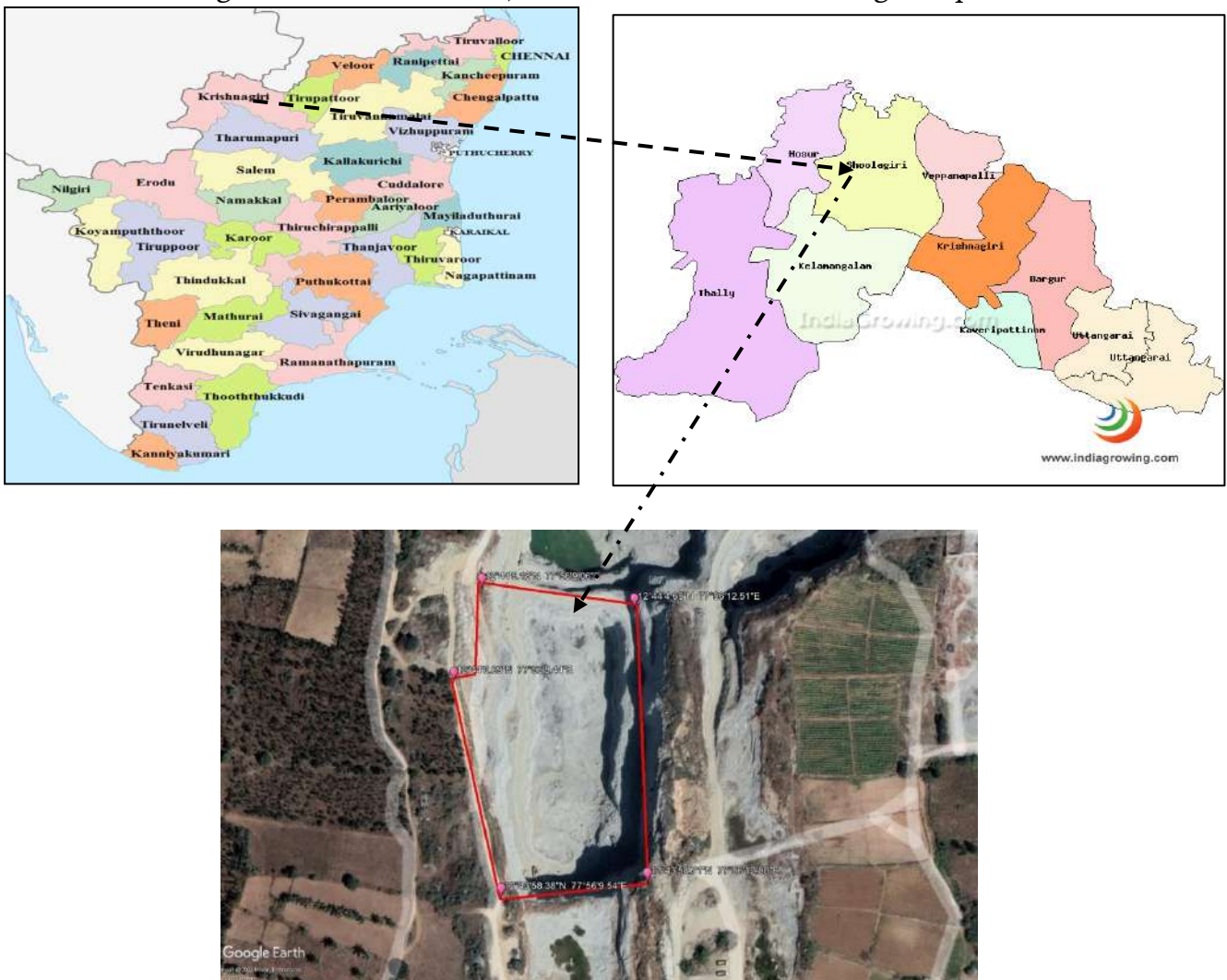


Figure 1: Location Map of the Project Site



Figure 2: Google Image of the Project Site

4. Charnockite

Krishnagiri District is comprised of Archaean peninsular gneisses such as Charnockites, Hornblende gneisses, Biotite gneisses and migmatites, dolerites and are intruded by younger formations like pegmatite

and quartz veins. The peninsular gneisses/ migmatite consists of biotite mica, plagioclase and orthoclase feldspar and quartz and are found as sheet rocks. The rock formations surrounded by shear zones in between the country rocks and later period of intrusions, fractured / joint, weathered rock formations, the metamorphosed rock formations are in enormous in nature. The massive rock formations which are not suitable for the productions of granite slabs are also suitable and used to produce rough stones. The predominant occurrence of granitic gneissic rock formations which are most suitable to produce rough stone, jelly and for making M. Sand, crusher dust.

5. Geological Resources

The geological reserves have been calculated based on the cross section method

Table 2. Geological resources

GEOLOGICAL RESERVES							
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Geological Reserves in m3 (100%)	Top Soil in m3
XY-AB	I	13	48	2			1248
	II	22	66	7	10164	10164	
	III	107	127	7	95123	95123	
	IV	107	127	7	95123	95123	
	V	107	127	7	95123	95123	
	VI	107	127	7	95123	95123	
	VII	107	127	7	95123	95123	
	VIII	107	127	7	95123	95123	
Total=					580902	580902	1248
XY-CD	I	12	29	2			696
	II	14	29	4	1624	1624	
	III	91	111	7	70707	70707	
	IV	96	111	7	74592	74592	
	V	96	111	7	74592	74592	
	VI	96	111	7	74592	74592	
	VII	96	111	7	74592	74592	
Total=					370699	370699	696
Grand Total=					951601	951601	1944

Table 3. Year wise Production Plan

Yearwise Development and Production							
Year	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Recoverable Reserves in m3 (100%)	Top Soil in m3
24.08.2021 - 23.08.2022	I	13	31	2			806
	II	22	45	7	6930	6930	
	III	107	96	7	71904	71904	
	I	1	11	2			22
	II	2	9	4	72	72	
Total=					78906	78906	828
24.08.2022 - 23.08.2023							
	IV	107	86	7	64414	64414	
	III	79	86	7	47558	47558	

Total=					111972	111972	
24.08.2023 -							
23.08.2024	V	107	76	7	56924	56924	
	IV	79	76	7	42028	42028	
Total=					98952	98952	
24.08.2024 -							
23.08.2025	VI	107	66	7	49434	49434	
	V	74	66	7	34188	34188	
Total=					83622	83622	
24.08.2025 -							
23.08.2026	VII	107	56	7	41944	41944	
	VIII	107	46	7	34454	34454	
	VI	69	56	7	27048	27048	
	VII	64	46	7	20608	20608	
Total=					124054	124054	
GRAND Total =					497506	497506	828

6. Mining

Opencast mining

The quarry operation is proposed to carry out with conventional Opencast – semi mechanised method with 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.

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 1.50 KLD. Domestic water will be sourced from nearby Bukkasagaram which is about 0.87 Km south of the area and other water will be source from nearby road tankers supply.

Table 4. Water Balance

Purpose	Quantity	Sources
Drinking Water	0.5KLD	Packaged Drinking water vendors available in Bukkasagaram which is about 0.87 Km south of the area .
Green belt	0.5KLD	Other domestic activities through road tankers supply
Dust suppression	0.5KLD	From road tankers supply
Total	1.5 KLD	

8. Man Power

Total manpower required for the project is approximately 14 persons. Workers will be from nearby villages.

Table 5. Man Power

1.	Skilled	Mine Foreman/ Permit Mines Manager	1 No
		Jack Hammer Operator	6 Nos
		Blaster/ Mate	1 No
		Excavator operator	1 No.
		Co- operator	1 No.
2.	Semi skilled		3
3.	Unskilled	Helper	1 Nos
Total			14Nos

No child less than 18 years will be entertained during quarrying operations.

9. Solid Waste Management

Table 6 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	3.24 kg/day	Municipal bin including food waste
2	Inorganic	4.86 kg/day	TNPCB authorized recyclers

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

Table 7. 500m Radius Cluster Mine

1) Existing other quarries:

S. No.	Name of the lessee / Permit Holder	Village & Taluk	S. F. No.	Extent	G.O No & Date	Lease Period
1.	Thiru V.Sekar S/o R.Venkatesppa, D.No.4/165/B Karukondahalli village, Bataramangala m Post, Denkanikottai Taluk.	Shoolagiri Taluk Venkatesapura m	270 (part 1)	2.30.0	RoC.81/2016/ M Dt:- 09.08.2016	24.08.201 6 to 23.08.202 6 Instant proposal
2.	Thiru C.Paramesh, S/o.Chinnasam y, D.No.21242 H.Chettipalli village, J.Karupalli post, Hosur Taluk	Shoolagiri Taluk Venkatesapura m	269 (Part -D)	3.00.0	RoC.80/2016/ M Dt.08.08.2016	24.08.201 6 to 23.08.202 1
3.	M/s. Munichandrapa Co.D.No.4/407 , Ramchandrain village, Bukkasagaram village, Shoolagiri Taluk	Shoolagiri Taluk Venkatesapura m	269 (Part -C)	3.50.0	RoC.79/2016/ M-2Dt:- 18.8.2016	2.09.2016 to 01.09.202 1
			Tota 1	8.80.0		

2) Proposed Area:

S. No.	Name of the applicant	Village & Taluk	S. F. No.	G.O No. & Date	Extent
NIL	NIL	NIL	NIL	NIL	NIL

3) Details of Abandoned quarry/Old quarries:

S. No.	Name of the applicant	Village & Taluk	S. F. No.	Extent	GO No & Date	Lease Status
1.	Thiru.G.Sathish, S/o. Gopal D.No.87 New Vasanth Nagar, Krishnagiri Bye pass Road, Hosur Krishnagiri 635 109	Shoolagiri Taluk Venkatesapuram	269 (part- A)	4.00.0	RoC.74/2012/M- 2 Date- 12.06.2024	16.06.2014 to 15.06.2019
2.	Thiru.V.Nagabushnam, S/o. Venkatsamy, D.No.2-116, H.Chettipalli Village, J.Karupalli Post, Hosur Taluk.	Shoolagiri Taluk Venkatesapuram	269 (part- B)	3.25.0	RoC.78/2016/M- 2 Dt.10.08.2014	16.06.2014 to 15.06.2019
			Total	7.25.0		

The Total extent of the Existing / Lease expired / proposed quarries are **16.05.0 Ha.**

10. Land Requirement

The total extent area of the project is 2.30.0 Ha, Government Poramboke Land in Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District.

Table 8 Land Use Breakup

Sl. No.	Description	Present Area (Ha.)	Area in use during the quarrying period (Ha.)
01.	Area under Quarrying	1.38.0	1.84.0
02.	Infrastructure	Nil	0.01.0
03.	Roads	0.01.0	0.01.0
04.	Green Belt	Nil	0.44.0
05.	Unutilized Area	0.91.0	Nil
	TOTAL	2.30.0	2.30.0

11. Human Settlement

There are no habitations within 500m radius. There are villages located in this area within 5km radius of the quarry.

Table 9 Habitation

Name of Hamlet	Population	Direction from the area	Distance
Venkatesapuram	500	North	2.5 kms.
Bukkasagaram	400	South	1.0km.
Sundatti	300	West	2.0 kms.
Punnagaram	350	East	4.0 kms.

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 : 33.7 °C
- ii) Average Maximum Temperature. : 24.2 °C
- iii) Average Annual Rainfall of the area : 922.8 mm

13.2 Air Environment

Ambient air monitoring was carried out on 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 (NO_x) were monitored, and the results are summarized below.

The baseline levels of PM10 (59-42 µg/m³), PM2.5 (29-18 µg/m³), SO₂ (3-13 µg/m³), NO_x (27-8 µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from January - March 2022.

13.3 Noise Environment

Ambient noise levels were measured at 5 locations around the proposed project site. The maximum Day noise and Night noise were found to be 55 dB(A) and 45 dB(A) respectively in Devasanapalli. The minimum Day Noise and Night noise were 45 dB(A) and 38 dB(A) respectively which was observed in Project Site.

13.4 Water Environment

- The average pH ranges from 7.41-7.88
- TDS value varied from 428 mg/l to 969 mg/l
- Hardness varied from 225 to 596 mg/l
- Chloride varied from 32.3 to 198 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 6.47 with organic matter 0.08 % to 1.07 %. 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 Government Poramboke Land. There are 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. Green belt has been recommended as one of the major component of Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like Vilvam, Pungam, Naval etc will be planted along the lease boundary and avenues as well as over Non-active dumps at a rate of 500 trees per annum with interval 5m.
4. The rate of survival expected to be 60% in this area

Table.10 Plantation/ Afforestation Program

Scientific Name	Local Name
<i>Diospyro sebumum</i>	Karungali
<i>Aegle marmelos</i>	Vilvam
<i>Lagerstromia speciosa</i>	Poo Marudhu
<i>Toona ciliate</i>	Sandhana Vembu
<i>Azadirachta Indica</i>	Neem
<i>Pongamia Pinnata</i>	Pungam
<i>Prosopis cinera</i>	Vannimaram
<i>Syzygium cumini</i>	Naval
<i>Premna tomentosa</i>	Purangai Naari
<i>Litsea glutinosa</i>	Pisinpattai
<i>Chloroxylon sweitenia</i>	Purasamaram
<i>Borassus Flabellifer</i>	Panai

- The development of greenbelt in the periphery of the mine area.

- Trees will be planted along the sides of the lease boundary and avenues as well as Non-active dumps at a rate of 1300 trees with an interval of 5m in 3 rows with tall and long tree species alternative rows.

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 equipments 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 (TNPCB), shall be maintained.

19. Project Cost

The total project cost is **Rs. 1,37,90,000/-** 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 .11 Project Cost details

S. No.	Description	Cost
1	Project Cost	97,90,000/-
2	Operational Cost	40,00,000/-
	Total	1,37,90,000/-

20. Corporate Environmental Responsibility

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

Table 12 CER Cost

S.No.	CER Activity	CER 2% of the project cost (Rs.)
1.	Developing Sports facilities and Providing Toilet, Water Filter facilities to Government Schools in Bukkasagaram Village	5,00,000

21. Benefits of the Project

- There is positive impact on socio-economics of people living in the villages. Mining operations in the subject area has positive impact by providing direct and indirect jobs opportunities
- The project is environmentally compatible, financially viable and would be in the interest of 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 near vicinity.