

Environmental Impact Assessment

(Presented by: Prof. Dr. J. K. Floy, Chairman, Dr. Subhashir, Member, Dr. M. V. Chidambaram, Secretary & Additional Chief Secretary to Government (Environment Department)
 Subj: SEIAA, Kerala Quarry project of M/s Mathalikulunel Quarry, Mathalikulunel
 P.O. Kozhikode-673604 Environmental Clearance-Accorded

Environmental Clearance

Date: 10/12/14

No. 20/SEIAA/EL/251/2014

Dated 05-12-2014

- Ref. 1. Application dated 16.01.2014 from Mr. Thankachan M.S., Mathalikulunel, Koombara Bazar P.O. Kozhikode - 673604
 2. Minutes of the 25th meeting of SEAC held on 14/15-02-2014
 3. Minutes of the 32nd meeting of SEAC held on 12/13-08-2014
 4. Minutes of the 34th Meeting of SEIAA held on 31-10-2014

ORDER

Mr. Thankachan M.S., Owner, M/s Mathalikulunel Quarry, Mathalikulunel, Koombara Bazar P.O. Kozhikode District, vide his application received on 16.01.2014, has sought Environmental Clearance under EIA Notification, 2006 for the building stone quarry project in Survey Nos. Sy. No. 2442 p at Koodaranhi Village, Kozhikode Taluk, Kozhikode District, Kerala for an area of 4.6963 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA-II(M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

Name of project		Quarry Project of M/s Mathalikulunel Quarry
Brief description of the project		Open cast mining
Category/Subcategory & Schedule		"B" Category, 1(a)
Location Sy no/ district, Taluk/ village etc.		Sy. No. 2442 p at Koodaranhi Village, Kozhikode Taluk, Kozhikode District, Kerala
GPS co-ordinates		Longitude: 76° 04' 40.53" E to 76° 04' 52.89" E Latitude: 11° 18' 41.57" N to 11° 18' 41.57" N
for Mining projects	Extent of area (in hectares)	4.6963 hectares
	Minimum and maximum height of excavation (MSL)	Highest 165 and Lowest 50 MSL
	Life of mine proposed	8 years
	Ultimate depth of mining (in MSL)	50 m above MSL
	Distance from the adjacent quarry	3 km from quarry towards E
	Capacity of production	4,06,000 tonnes per year (max)
	Details of Project Cost	Total: Rs 2.0 Crores
CRZ recommendations		Not Applicable as no part or whole of the lease area falls under CRZ
Forest clearances		Not Applicable as no part or whole of the lease area falls under forest.

ABOUT THE PROJECT

Environmental parameters

Mitigation measures

WATER

Water requirement & sources

Domestic consumption - Bore well located within quarry area
Dust suppression: Well water and rain water collected in the pits

RWH unit proposed

Two ponds are proposed, one for rain water harvesting cum silt arresting pond and other for plantation and dust suppression
The dimension of the pits are (30mX20mX5m) and (20mX15mX4m)

Facilities for liquid waste treatment

Liquid wastes from toilet and office will be treated in septic tank and soak pit

Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?

Yes, The surface runoff from the lease area will be suitably collected through channels and will be stored in storm water pond for further utilization for wetting of mine area and surrounding area

Does it have provisions for use of recycled water

Quarrying activity does not require water hence no recycling.

LAND

Proximity to forest lands

No forest zone is falling proximity of 10 km buffer zone

Access road to the site - Width & Condition

The lease area is accessible by all-weather roads from Anayamkundu towards SE which leads to mine at a distance of 3km from Anayamkundu.

Storage of explosives /hazardous substances

Explosives will be procured, stored, transported, handled and used in accordance with Indian Explosive Act 1884, MSIH Rules 1989, Mines Act, 1952 and regulations there under..

Facility for solid waste mgmt

Overburden generated will be utilized for road and construction works.

Topographic features/ slope

General strike: NW - SE with local variation of 10° - 15° on either side.

Dip : 70° - 80° dipping north easterly

Length of the ore body : 380 mts.

Width of the ore body : 80-165 mts.

Depth of the ore body : 135.00 mts.

Top soil, overburden etc.

Topsoil - 34,913 tonnes

The total amount of topsoil is existing within the leasehold is calculated below:

Length: 380.00 mts X Width 122.5 mt X Depth 0.5 mts X Bulk density 1.5 = 34,913 tonnes.

AIR

Air quality meeting requirements

Yes

Noise level meeting requirements

Yes

Likely emissions affecting environment

Diesel engine emissions, Fugitive dust emission & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.

ENERGY

Energy requirement

1 Nos. of DG. Sets.

Energy Source	As such no electric power is required for quarry operation but power supply is required for offsite area, and etc. which require about 30KW DG Set-1 H.P. with a capacity of 7.5HA is installed for power backup. Quarry operations are mainly by EHE which are operated by ESD. About 30 Hha/hr of HSD is required a day.
BIODIVERSITY	
Presence of any endangered species or red listed category	NA
Loss of native species and genetic diversity	As per the ecological survey carried out, there are varieties of native species of shrubs, trees etc. and there will be some loss of species due to mining activity. However, some of the native species will be planted at the end for restoration.
SOCIAL ASPECTS	
Proximity to nearest habitation	110m
CSR components suggested	Under CSR initiatives certain community welfare measures are being carried out and those will be continued.
GENERAL	
Does it propose environment management plan	Yes, the Environmental Management Plan prepared and submitted to SEIAA. (Pages 50-73 of report)
Does it have eco restoration programmes	Post mining closure plan is prepared and the same will be implemented.
Litigation/court cases, if any, against the project (provide details)	There are no litigations against the project as declared by the Project Proponent.
Details of Authorised Signatory	Mr. Thankachan M.S. Owner M/s Mathalikunnel Quarry Mathalikunnel, Koombara Bazar P.O. Kozhikode - 673604. Mob. No. 9745714264 Email: thankachan.mathalikunnel@gmail.com
Details of NABET approved EIA consultant organisation	M/s Metamorphosis #143, 2 nd Floor, 39 th Main 4 th Cross, Behind Silk Board BTM Layout 2 nd Stage Bengaluru - 560068, Tel No. +9180 26783006; Email: mail@metamorphosis-india.com

The proposal was considered as agenda item no. 25.15 in the 25th SEAC meeting held on 14th and 15th February 2014. The Committee found that the earlier application submitted by the proponent for the same area was rejected and delisted for want of valid proof of ownership of land by the proponent. Hence it was decided to examine the land documents in detail. Further it was found that there is another working quarry on the northern slope adjacent to this quarry. The proponent stated that the same is owned by another person. However, the Committee wanted to ascertain during site visit the number of working quarries surrounding the project site. The proponent was also directed to provide the detailed split up of the proposed CSR activities specifically mentioning the areas/institutions to which the same shall be extended, with documentary evidence of the already done CSR activities.

Considering the above, the item was referred for a visit to the site during site visit. The number of working quarries surrounding the project site and also directing the respondent to provide a detailed split up of the proposed CSR activities specifically mentioning the institutions to whom the same shall be extended, with documentary evidence of the already CSR activities. On submission of the same, the proposal was placed in 32nd SEAC meeting held on 12th and 13th August 2014 as agenda item no. 32.15 for further appraisal. As per the decision taken by the Committee a site visit was conducted by an expert team and the following points were recommended for consideration in addition to the general conditions stipulated for mining projects:

1. Considering the steep slope and the presence of natural vegetation like bamboo, a buffer distance of 50 m has to be left from the rocky area with natural vegetation. This area is reported to be revenue land.
2. Pockets of thick overburden are seen in the area. It must be stacked in designated place for future restoration purposes.
3. Steep cuttings are seen in the quarry on the NE side of the lease. Quarrying to be stopped immediately in this area and demarcated with fences as danger zone.
4. The natural ephemeral stream through the lease area must flow unhindered.
5. There must be a mechanism to trap the silt in the stream by means of low level check dams or by any other structures.
6. The approach road to the site needs to be developed with hard surface. Water must be sprinkled to suppress dust.
7. Quarry must have a definite working plan (not making haphazard pits).

The project proposal was placed before the 34th meeting of SEIAA held on 24.10.2014

The Authority approved the proposal for issue of environmental clearance subject to the general and the above seven specific conditions as per the recommendations of SEAC. EC will be issued subject to the modified general conditions adopted in the joint meeting of SEIAA and SEAC held on 31.10.2014.

4. Environmental Clearance under EIA notification 2006 is accorded for the proposed quarry project of M/S. Mananikkunnei Quarry, Mananikkunnei, Koombara Bazar P.O., Kozhikode - 673004 at Survey no 2442 p of Koodaranhi Village, Kozhikode Taluk, Kozhikode District subject to all the mining features, Environmental Management Plans (Pages 50-73 of report) as undertaken in the EMP submitted to SEIAA which will form part of this proceedings as if incorporated herein, and the following specific conditions, and the general conditions on mining of minor minerals appended hereto:

1. Considering the steep slope and the presence of natural vegetation like bamboo, a buffer distance of 50 m has to be left from the rocky area with natural vegetation. This area is reported to be revenue land.
2. Pockets of thick overburden are seen in the area. It must be stacked in designated place for future restoration purposes.
3. Steep cuttings are seen in the quarry on the NE side of the lease. Quarrying to be stopped immediately in this area and demarcated with fences as danger zone.

4. The approach road through the lease area will be surfaced.
5. There must be a mechanism to trap dust in the area by use of 1000l check dams or by any other structures.
6. The approach road to the site needs to be developed with hard surface. It must be sprinkled to suppress dust.
7. Quarry must have a definite working plan (not making haphazard pits).

5. Validity of this Environmental clearance will be 5 years provided and it will be subject to review at any stage earlier, if any of the conditions in the E.C. is violated or not duly complied with.

- I. Compliance of the conditions herein will be monitored by the Directorate of Environment and Climate Change or its agencies and also by the Regional office of the Ministry of Environment and Forests, Govt. of India, Bangalore.
- II. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.

For Member Secretary (SEIAA)

To

Mr. Thankachan M.S.,
M/s Mathalikunnel Quarry
Mathalikunnel, Koombara Bazar P.O.
Kozhikode - 673604.
Mob. No. 9745714264
Email: thankachan.mathalikunnel@gmail.com



Copy to :

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034
2. ~~The Addl. Chief Secretary to Government, Environment Dept., Government of Kerala~~
3. ~~The District Collector, Kozhikode~~
4. ~~The Director, Dept. of Environment and Climate Change, Govt. of Kerala, Thiruvananthapuram-695 024~~
5. The Director, Mining and Geology Department, Government of Kerala
6. The Secretary, Koodaranhi Grama Panchayath, Koodaranhi (P.O), Kozhikode-673604
7. Chairman SEIAA Kerala
8. Website
9. Stock file
10. O/c

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

GENERAL CONDITIONS for mining projects

- (i) Rain Water Harvesting facility should be installed as per the prevailing provisions of EMBR / KPBR, unless otherwise specified.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
- (iv) Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
- (v) Sprinklers shall be installed and used in the project site to contain dust emissions.
- (vi) Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
- (vii) At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumpings and overburden and planted with indigenous plant species that are eco-friendly.
- (viii) Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented.
- (ix) The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mine.
- (x) Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
- (xi) Control measures on noise and vibration prescribed by KSPCB should be implemented.
- (xii) Quarrying activities should be limited to day time as per KSPCB guidelines.
- (xiii) Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
- (xiv) A licensed person should supervise/ control the blasting operations.
- (xv) Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- (xvi) Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored.
- (xvii) Height of benches should not exceed 5 m and width should not be less than 5 m.
- (xviii) Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
- (xix) Maximum depth of mining from general ground level at site shall not exceed 10m.
- (xx) No mining operations should be carried out at places having a slope greater than 45°.
- (xxi) ~~Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB.~~
- (xxii) ~~The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.~~
- (xxiii) Gariand drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
- (xxiv) The transportation of minerals should be done in covered trucks to contain dust emissions.
- (xxv) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- (xxvi) Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
- (xxvii) Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
- (xxviii) A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
- (xxix) 200 m buffer distance should be maintained from forest boundaries.
- (xxx) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.
- (xxxi) All other statutory clearances should be obtained, as applicable, by project proponents from the respective

compulsory authorities including list for blasting and storage explosives..

- (xii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the Authority.
- (xiii) The Authority reserves the right to add additional safeguard measures suitably, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in the bound and satisfactory manner.
- (xiv) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- (xv) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
- (xvi) A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/ Corporation/ Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
- (xvii) The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.
- (xviii) The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public
- (xix) The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.
- (x) The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license or consent given by any other authority for the same project


Member Secretary, SEIAA Kerala

