



Validity expires on 25-12-2020

***Proceedings of the State Environment Impact Assessment Authority
Kerala***

*Present: Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member and Sri. P. Mara Pandiyan I.A.S.
Member Secretary.*

Sub: SEIAA- Environmental Clearance for the proposed quarry project in Sy. Nos. 323/4 part & 323/6 part, Block no. 33 at Kalanjoor Village & Panchayath, Konni Taluk (formerly part of Adoor Taluk), Pathanamthitta District, Kerala by M/s Mavanal Granites Pvt. Ltd.- E.C Granted. Orders Issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 518/EC4/3822/2014/SEIAA

dated, Thiruvananthapuram 26-12-2015

- Read:*
1. Application dated 25-7-2014 submitted by Sri. K.N. Madhusoodanan Managing Director, M/s Mavanal Granites Pvt. Ltd., Sreenikethan, Kalanjoor Post, Konni Taluk, Pathanamthitta District-689694
 2. Minutes of the 45th meeting of SEAC held on 11/12-9-2015
 3. Minutes of the 47th meeting of SEAC held on 13/14-10-2015
 4. Minutes of the 45th meeting of SEIAA held on 4-12-2015

ENVIRONMENTAL CLEARANCE NO. 120 /2015

Sri. K.N. Madhusoodanan, Managing Director of M/s. Mavanal Granites Pvt. Ltd, vide his application received on 06.08.2014, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 323/4 part & 323/6 part, Block no. 33 at Kalanjoor Village & Panchayath, Konni Taluk (formerly part of Adoor Taluk), Pathanamthitta District, Kerala for an area of 3.8886 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) dated 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. The proposed project site falls within $09^{\circ} 07' 17.61''$ N to $09^{\circ} 07' 06.46''$ N and $76^{\circ} 56' 19.17''$ E to $76^{\circ} 56' 04.88''$ E. The land use classification as per revenue records is rocky land with private own land. The present land use is rocky land with quarrying activities. The current proposal is for the existing quarry with two pit areas of 2.5476 & 1.3410 hectares and mineral specific. Hence no alternate site was examined. Forest land is not involved in the project. The proposed project is for quarrying of 1,50,000 MTA of building stone from an area of 3.8886 hectares of land. The quarry is interlinked with crusher unit located within the complex. The expected life of mine will be 6 years. The proposed project activity involves about 87 % of the pit area for exploring building stone. At the end of life of mine, excavated pit will be backfilled and reclaimed and rehabilitated by plantation with native species leaving no void. The proposed project does not involve any underground mining activities. The mining will be done by open cast semi mechanized method. The bench height and width proposed is 5 m. The exploitation of mineral is being done from 145 m MSL to 110 m MSL in conceptual phase. The ultimate depth of the mine workings is estimated to be 110 m MSL. Around $27,220 \text{ m}^3$ of top soil will be generated from the proposed pit, which will be properly stacked separately at pre-determined place and will be utilized for plantation over the reclaimed areas. Around $5,833 \text{ m}^3$ of overburden is generated, which will be utilized in developing internal roads and at the end use the same will be used as soil base for reclamation. The sewage of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The municipal solid waste generated from the labour quarter will be suitably disposed along with reclamation or back filling. The sludge generated from the septic tank will be dried and used as manure in plantation. There will be fugitive emissions generated during material handling, transportation, loading, unloading, etc. that are proposed to be managed by regular water sprinkling on haul road, green belt development, avoiding overloading of vehicles, maintaining the speed of vehicles within prescribed limits and covering the load with tarpaulin sheets. Plantation with shrubs, herbs and trees will be done as part of eco-restoration work. Anticipating 50 % growth rate, at the end of life of mine, about 3,500 trees will be grown in total area of 3.8886 hectares. As per the biodiversity listing provided by the proponent, there is no flora species and fauna species

existing at site which are in the red listed category or Schedule-1 species. The loss of native species and vegetation due to mining will be planted at the end use for eco-restoration. The area selected is such that there is enough depth of top soil and overburden and the quarrying in this area is not proposed in future. The endemic species of plants (smaller size) identified in the proposed quarry area would be transplanted in this reserved area. Achankovil River is at a distance of 4 km NE of the project site. Other details of the case are as under:

<i>Details of project cost</i>	Rs. 2.60 Crores
<i>Environmental parameters considered</i>	
WATER	
Water requirement & sources	The total water requirement is about 16 KLD in which 1 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary unit and 3 KLD for plantation purposes and will be sourced from storm water pond.
RWH units proposed	Rain water collection pond.
Facilities for liquid waste treatment	Not applicable
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses.
Water quality meeting requirements	Water quality meeting requirements after the treatment of water (filtration, disinfection & sedimentation).
Does it have provisions for use of recycled water	No
LAND	
Proximity to forest lands	Annakulam forests area within the 500 m.
Access road to the site –Width & Condition	7 m. tarred road, SW
Storage of explosives /hazardous substances	Explosives will be stored as per Explosive Act / Rules.
Facility for solid waste management	The municipal solid waste will be suitably disposed.
Proneness of the area for landslides	No
Significant land disturbance resulting in erosion, subsidence & instability	No
Top soil, overburden etc.	Top soil = 27,220 cu.m. Over burden = 5,833 cu.m.
AIR	
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.
ENERGY	

Energy requirement	The total power requirement will be 75 kW for compressions, which will be drawn from diesel engine.
Extent of usage of alternative energy resources	No
BIODIVERSITY	
Presence of any endangered species or red listed category	Nil
Loss of native species and genetic diversity	No
Likely displacement of fauna	For the quarrying activity all of native tree species, shrubs, herbs, climbers etc. existing at project site will be cleared.
Any introduction of alien / invasive species	Nil
SOCIAL ASPECTS	
Proximity to nearest habitation	134 m. , NW side
CSR related to the project / allocation / time frame (details mandatory)	CSR will be allocated for Health, Education, Community Development, Ensuring environmental sustainability and Reduction in carbon footprint & co ₂ emission
GENERAL	
Litigation/court cases, if any, against the project (Provide details)	National Green Tribunal, Southern Zone, Chennai Application No. 303 of 2013 (SZ) (THC) in WP No. 13248 of 2011. There is no injunction or stay order by the National Green Tribunal against the quarry operation.
Right & nature of ownership of land	Private land
Is the property forest land/govt. land/own land	Own land
Details of Authorised Signatory	Sri. K.N. Madhusoodanan, Managing Director, M/s Mavanal Granites Pvt. Ltd., Sreenikethan, Kalanjoor Post, Konni Taluk, Pathanamthitta District-689694
Details of NABET approved EIA consultant organisation	M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 54 as per MoEF & CC list of Accredited Consultant Organization) <i>Head Office :-</i> A1-198, Janak Puri, New Delhi. <i>Branch Office:-</i> C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.

3. Since the tenure of the SEIAA, Kerala had expired, the proponent submitted an application to MoEF directly for getting E.C. The matter was considered in the 28th meeting of EAC of MoEF held on 22-23rd December 2014 and EAC sought for additional information. The

proponent submitted documents as per the queries raised in the EAC meeting. Since SEIAA, Kerala has been constituted, MoEF referred the case to SEIAA as per the letter cited on its constitution as per letter No. Z-11013/24/2015-IA-II (M) dated 01-04-2015. The proponent submitted approved Mining Plan. As per the letter dated 20-1-2015 from C.R. Neelakandan, Environmental Activist, stated that a pending litigation before the Hon'ble NGT, O.A. No.303, in which the proponent is the respondent. The proponent submitted revised Form I application since there is a litigation (NGT (SZ) Chennai, Application No.303 of 2013 (SZ) (THC) (WP No.13248 of 2011 of Kerala High Court) pending against the quarry project. As stated by the proponent there is no injunction order or stay order by the NGT against the quarry operation.

4. The proposal was placed in the 45th meeting of SEAC held on 11th and 12th September 2015. The Committee observed that the proposal was forwarded from MoEF. The quarry area has already been inspected by a team from the Department of Environment, the details of which are available. So the Committee decided that further field inspection is not necessary. The Committee found that the mining plan submitted is not in accordance with KMMC Rules 2015. So the Item was deferred for submission of revised mining plan, a copy of the certificate from Village officer as mentioned in 27, 2(f) of KMMC rule 2015, details regarding case in NGT and a more realist social responsibility projects.

5. As per the decision taken by 45th SEAC, the proponent submitted the clarifications. The proposal was again placed in the 47th SEAC held on 13th and 14th October 2015. The Committee appraised the proposal based on the Mining Plan, Prefeasibility Report, field inspection report and all other documents submitted along with the Form I application and decided to recommend for issuance of Environmental Clearance with the following specific conditions, in addition to the general conditions stipulated for mining projects.

1. The abandoned pits may be restored with vegetation.
2. Reclamation and eco-restoration should be done by planting native species.
3. To the extent possible local biodiversity management Committee should be involved in the environmental management/restoration activities.

6. As per the decision taken by 45th SEAC, field inspection is not necessary since the quarry area has already been visited by team from the Department of Environment in connection with the Govt. directed enquiring on functioning of quarries in Kalanjoor Panchayat, Pathanamthitta. Aswathy Granites, working nearby has been granted E.C. (No. 54 dated 10-8-2015). The proposal was placed in the 45th meeting of SEIAA held on 4-12-2015. The Authority decided to accept the recommendations of SEAC and to issue E.C. subject to the decision of the N.G.T (S.Z) in Application No. 303 /2014 filed by Manushyavakasa Samrakshana Sangho, Athirukkal post, Koodal, Pathanamthitta district & Others. The documents called for having been submitted and on being satisfied that there are no other quarry in operation within 500 meters of this quarry, and there is no notified Protected Areas, Wild Life Sanctuaries, or Ecologically Sensitive Areas within 200 meters from the periphery of the mining area and there is proper undertaking that the committed CSR activities will be implemented the State Environmental Impact Assessment Authority, Kerala hereby accord environmental clearance under the EIA notification 2006, for the quarry project of Sri. K.N. Madhusoodanan Managing Director, M/s Mavanal Granites Pvt. Ltd., Sreenikethan, Kalanjoor Post, Konni Taluk, Pathanamthitta District-689694 in 3.8886 hectares of private land in Sy. Nos. 323/4 part & 323/6 part, Block no. 33 at Kalanjoor Village & Panchayath, Konni Taluk (formerly part of Adoor Taluk), Pathanamthitta District.

7. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan, (pages 26 to 53) and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and undertakings in Chapter 4 (Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (stacking of mineral rejects and disposal of wastes) Chapter 11 (EMP) of the Mining Plan and the entire Progressive Mine Closure Plan as submitted will be deemed to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.

8. Validity of the environmental clearance will be five years form the date of this clearance, subject to earlier review in the event of violation or non- compliance of any of the conditions stipulated herein.

9. 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 & Forests, Govt. of India, Bangalore.

i) 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.

ii) Instances of violation if any shall be reported to the District Collector, Pathanamthitta to take legal action under the Environment (Protection) Act 1986.

iii) The given address for correspondence with the authorised signatory of the project is Sri. K.N. Madhusoodanan Managing Director, M/s Mavanal Granites Pvt. Ltd., Sreenikethan, Kalanjoor Post, Konni Taluk, Pathanamthitta District-689694.

Sd/-

P. MARA PANDIYAN, I.A.S,
Member Secretary (SEIAA)
&
Addl. Chief Secretary
Environment & Forests Department.
Government of Kerala.

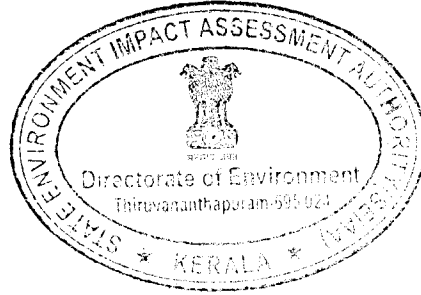
To,

Sri. K.N. Madhusoodanan,
Managing Director,
M/s Mavanal Granites Pvt. Ltd.,
Sreenikethan, Kalanjoor Post, Konni Taluk,
Pathanamthitta District-689694.

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E & F Wing, Iblock, Koramangala, Bangalore-560034.
2. Addl. Chief Secretary to Government, Environment Department
3. The District Collector, Pathanamthitta
4. The Director, Department of Environment & Climate Change, TVPM-4
5. The Director, Mining and Geology Department, Govt. of Kerala
6. The Secretary, Kalanjoor Grama Panchayat, Konni Taluk, Pathanamthitta District-689694

7. Chairman, SEIAA
8. Website
- ✓ 9. Stock File
10. O/C.



Forwarded/ By Order

Administrator
(SEIAA)

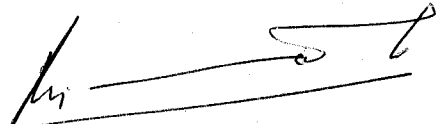
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA
GENERAL CONDITIONS (for mining projects)

- (i) Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / 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) Garland 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) **100 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 competent authorities including that for blasting and storage of explosives.
- (xxxii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xxxiii) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (xxxiv) 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.
- (xxxv) 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.
- (xxxvi) 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.
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) 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