

Validity expires on 16-02-2021



***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: -** Environmental clearance for the building stone quarry project in Sy. No. 348/7, 349/5, 349/6, 349/7, 349/8, 350/6, 350/7, 350/8, 350/9, 350/10 at Kanakkary Village, Meenachil Taluk, Kottayam District by Dr. Vivish Thomas -E.C- Granted.

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**STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**

**No. 815/EC4/2486/2015/SEIAA**

***Dated: 17-02-2016***

- Read:-*
1. Application dated 23-6-2015 from Dr. Vivish Thomas, Vettoor Centre, T.B. Road, Kottayam-686001.
  2. Minutes of the 47<sup>th</sup> meeting of SEAC held on 13/14-10-2015.
  3. Minutes of the 49<sup>th</sup> meeting of SEAC held on 7/8-12-2016.
  4. Minutes of the 48<sup>th</sup> meeting of SEIAA held on 23-01-2016.

**ENVIRONMENTAL CLEARANCE NO. 21 / 2016**

Dr. Vivish Thomas, Vettoor Centre, T.B. Road, Kottayam-686001 vide his application received on 30-06-2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 348/7, 349/5, 349/6, 349/7, 349/8, 350/6, 350/7, 350/8, 350/9, 350/10 at Kanakkary Village, Meenachil Taluk, Kottayam District for lease area of 2.0607 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18<sup>th</sup> 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.

The proposed project site falls Latitude: 09°41'33.59"N to 09°41'27.77"N, and Longitude: 76°34'25.45"E to 76°34'19.19"E. The current project is the expansion of the existing project. The existing quarry an area of 0.3514 ha in Sy. No.350/6, 350/8 and 350/13-2 is in operation with a quarrying lease dated 2-1-2007 issued by Dept. of Mining and Geology and the validity period from 7-2-2007 to 6-2-2019. The current proposal is for

existing quarry and mineral specific hence no alternate site was examined. The proposed quarry project is interlinked with crusher unit which is available outside the complex at Poovamthuruthu, about 30 km. The highest and lowest elevation of the lease area is 73 m and 48 m MSL. A total quantity of 1925 m<sup>3</sup> of top soil and 1283 m<sup>3</sup> of over burden will be removed during the mining operations. About 0.8 KLD sewage will be generated and it will be disposed to septic tank and soak pit. The total water requirement is 5KLD and the total power requirement will be 75 kW which will be drawn from diesel engine. Other details of the project as under:

<i>Extent of area (in hectares)</i>	2.0607 ha.
<i>Minimum and maximum height of excavation (MSL)</i>	73 m MSL and 48 m. MSL
<i>Life of mine proposed</i>	10 Years
<i>Ultimate depth of mining (in MSL)</i>	48 m. MSL
<i>Distance from the adjacent quarry</i>	There is no quarry is operating within 500 m. radius.
<i>Capacity of production</i>	60,000 MTA
<i>Details of Project Cost</i>	Rs. 5.5 Crores.
<b>Environmental Parameters Considered</b>	
<b>WATER</b>	
Water requirement & sources	The total water requirement is about 5 KLD in which 1 KLD is for domestic which would be sourced from open well, 2 KLD for dust suppression system in mine and 2 KLD for plantation purposes and will be sourced from storm water pond.
RWH units proposed	Rain water collection pond.
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 to meet requirements after treatment of water (filtration, disinfection & sedimentation).
Does it have provisions for use of recycled water	No
<b>LAND</b>	
Proximity to forest lands	None within the study area
Is the land assigned for any other special purpose; Give details	No
Access road to the site –Width & Condition	6 m. wide, 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 = 1,925 cu.m. Overburden = 1,283 cu.m.
<b>AIR</b>	
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate. To be rectified as per Environment Management Plan
<b>ENERGY</b>	
Energy requirement	The total power requirement will be 75 kW for

	compressions, which will be drawn from diesel engine.
Energy Sources	From diesel engine.
Extent of usage of alternative energy resources	No
<b>BIODIVERSITY</b>	
Presence of any endangered species or red listed category	No
Loss of native species and genetic diversity	For the quarrying activity all of native tree species, shrubs, herbs, climbers etc. existing at project site will be cleared. To be rectified as per Mining Plan.
Likely displacement of fauna	No
Any introduction of alien / invasive species	No
<b>SOCIAL ASPECTS</b>	
Proximity to nearest habitation	101 m. , S
CSR related to the project/ allocation/ time frame	As a part of Corporate Social Responsibility, it is proposed to spend Rs. 6.595 lakhs for recurring and Rs. 7.4 Lakhs for non-recurring purposes.
<b>GENERAL</b>	
Eco restoration programmes	The year wise programme of afforestation for the life of mine, about 2,000 trees will be planted. The main aim of the green belt development is to restore the eco-system to its original form to a maximum extent by designing the green cover with the same native species.
Litigation/court cases, if any, against the project (provide details)	Nil as declared
Details of Authorised Signatory	Dr. Vivish Thomas, Vettoor Centre, T.B. Road, Kottayam-686001.
Details of NABET approved EIA consultant organization	M/s Environmental Engineers & Consultants Pvt.Ltd., A1-198, Janak Puri, New Delhi-110058.

2. The 47<sup>th</sup> SEAC held on 13<sup>th</sup> and 14<sup>th</sup> October 2015 appraised the proposal and decided to defer the item for field visit. Field visit was conducted by the subcommittee of SEAC on 31-10-2015. The major observations are as follows:

The project is located near Kadappoor at about 3 km north east of Ettumanur. This quarry lease area of 2.0607 ha falling in own land occupy part of an already quarried area on the east and partly in the rock exposed area on the west. Further to the east an excavated deep pit in waterlogged condition was noted. The general slope of the site is to the north with gentle to moderate inclination. The elevation of the lease area ranges from 75 m in the south to 50 m in the northern part. The rock type is charnockite with well developed foliation and vertical fractures. Weathered rock with more than 1 m thick over burden (OB) and top soil is seen in the undisturbed elevated and western part. The eastern and central part is stripped of the OB and shows active faces of quarry being developed with benches. The removed OB is

being stored in the lower northern part. The entire storm water from the quarry pits is led into the deeply excavated pit from where it is clarified and let out. This pit with steep flanks is also used as the RWH structure. Rubber is the dominant land use. Floral biodiversity is not observed as the area is considerably disturbed. Dwelling units are seen in the northern side but reported to be beyond 100 m. The project does not have an associated crusher unit.

Based on an overall evaluation of the site, the quarry operations may be recommended with following conditions:

1. Fencing should be provided all around the lease area.
2. The very steep cliff like flanks of the deep pit used as RWH structure with may be demarcated and fenced as danger zone with sign boards.
3. Approach roads to the quarry and the main haulage road need to be maintained
4. A minimum buffer distance of 100 m must be left from the nearest dwelling unit.

Other items from general conditions like a) Appropriate sign boards should be displayed, b) The blasting time must be displayed and strictly adhered to, c) The PPV values must be less than 10 mm/sec, d) Steps to be taken to limit fly rock to within the lease area. Rock fragments should not fall anywhere outside the lease area, e) Dust suppression mechanism must be in place f) A separate small plot to be maintained in the premise to preserve rare and endemic species, if any, listed in the biodiversity assessment etc.

3. The proposal along with field visit report was again placed in the 49<sup>th</sup> meeting of SEAC held on 7<sup>th</sup> and 8<sup>th</sup> December 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 for mining with following specific conditions, in addition to the general conditions stipulated for mining projects.

1. Fencing should be provided all around the lease area.
2. The very steep cliff like flanks of the deep pit used as RWH structure shall be demarcated and fenced as danger zone with sign boards.
3. Approach roads to the quarry and the main haulage road shall be maintained
4. A minimum buffer distance of 100 m must be left from the nearest dwelling unit.

4. The proposal was placed in the 48<sup>th</sup> meeting of SEIAA held on 23<sup>rd</sup> January 2016. Authority decided to accept the recommendation and to issue E.C subject to the specific conditions given in para 3 above and the general conditions for mining projects.

5. Environmental clearance is therefore granted to the proposed quarry project by Dr. Vivish Thomas in in Sy. Nos. 348/7, 349/5, 349/6, 349/7, 349/8, 350/6, 350/7, 350/8, 350/9, 350/10 at Kanakkary Village, Meenachil Taluk, Kottayam District for lease area of 2.0607 hectares subject to specific conditions mentioned in para 3, general conditions and the mitigation measures undertaken in the EMP in the PFR and Mining Plan submitted,

6. The clearance issued will be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in Chapter 4 of the PFR on Environment Management 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 the 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 this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

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

8. 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, Kottayam to take legal action under the Environment (Protection) Act, 1986.

iii) The given address for correspondence with the authorized signatory of the project Dr. Vivish Thomas, Vettoor Centre, T.B. Road, Kottayam-686001.

Sd/-  
Member Secretary, SEIAA  
&  
Addl. Chief Secretary  
Environment & Forests Department  
Government of Kerala.

To,

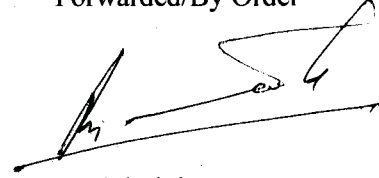
Dr. Vivish Thomas,  
Vettoor Centre,  
T.B. Road,  
Kottayam-686001.

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The District Collector, Kottayam
4. Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm-24
5. Director, Mining & Geology, Thiruvananthapuram -4.
6. The Secretary, Kanakkary Panchayat, Vempally P.O., Meenachil Taluk, Kottayam-686573

7. Chairman, SEIAA, Kerala
8. Website
9. S/F
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 dumping 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](http://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 on consent given by any other authority for the same project



  
for Member Secretary, SEIAA Kerala