



***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 quarry project in Sy. Nos. 431/3-1Pt, 431/3-2Pt, 436/4-1, 436/5, 438/4Pt, 438/5Pt, 438/6Pt, 438/9 Pt at Pampady Village, Pampady Panchayath, Kottayam Taluk, Kottayam District, Kerala by Smt. Mariamma Mathew - E.C. Granted.

---

**State Environment Impact Assessment Authority, Kerala**

**No. 840/SEIAA/EC4/2718/2015**

**Dated: 01-06-2016**

---

- Ref:
1. Application dated 10-7-2015 from Smt. Mariamma Mathew, Managing Partner, M/s Valiakalathil Rock Crushing Unit, Poothakuzhy P.O., Pampady, Kottayam-686521.
  2. Minutes of the 48<sup>th</sup> meeting of SEAC held on 6/7-11-2015.
  3. Minutes of the 52<sup>nd</sup> meeting of SEAC held on 08/09-02-2016.
  4. Minutes of the 51<sup>st</sup> meeting of SEIAA held on 29-03-2016.
  5. Minutes of the 52<sup>nd</sup> meeting of SEIAA held on 29-04-2016.

**ENVIRONMENTAL CLEARANCE NO. 74 / 2016**

Smt. Mariamma Mathew, Managing Partner, M/s Valiakalathil Rock Crushing Unit, Poothakuzhy P.O., Pampady, Kottayam District-686579, vide her application received on 14-07-2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 431/3-1Pt, 431/3-2Pt, 436/4-1, 436/5, 438/4Pt, 438/5Pt, 438/6Pt, 438/9 Pt at Pampady Village, Pampady Panchayath, Kottayam Taluk, Kottayam District for an area of 03.3366 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. Other details of the project are as under:

Brief description of the project		Quarry project with an area of 3.3366 ha. & production capacity of 1,25,000 MTA	
Category/Subcategory & Schedule		Category B/B/2 & Schedule 1 (a)	
Location Syno/ district, Taluk/ village etc.		Survey Nos. 431/3-1 pt., 431/3-2 pt., 436/4-1, 436/5, 438/4 pt., 438/5 pt., 438/6 pt., 438/9 pt., Pampady Village & Panchayat, Kottayam Taluk & District, Kerala	
GPS co-ordinates		Latitude (N)	09 <sup>0</sup> 32'28.66" to 09 <sup>0</sup> 32'19.48"
		Longitude (E)	76 <sup>0</sup> 40'13.15" to 76 <sup>0</sup> 40'04.35"
for Mining projects	Extent of area (in hectares)	3.3366 ha.	
	Minimum and maximum height of excavation (MSL)	92 m MSL and 57 m. MSL	
	Life of mine proposed	6 Years	
	Ultimate depth of mining (in MSL)	57 m. MSL	
	Distance from the adjacent quarry	There is no other quarry is operation within 500 m. radius.	
	Capacity of production	1,25,000 MTA	
	Details of project cost	Rs. 5.0 Crores.	
ABOUT THE PROJECT			
Environmental parameters considered		Description	
WATER			
Water requirement & sources		The total water requirement is about 15 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 units and 2 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		None within the study area	
Access road to the site – Width & Condition		6 m. wide, tarred road, S	
Storage of explosives /hazardous substances		Yes, Explosives will be stored as per Explosive Act / Rules.	
Facility for solid waste management		The municipal solid waste will be suitably disposed.	
Topographic features/ slope		The topography of the lease area is hilly area covered with native tree, climbers, grass, shrubs, herbs etc.	

	Slope = towards S side.																		
Proneness of the area for landslides	No																		
Significant land disturbance resulting in erosion, subsidence & instability	No																		
Top soil, overburden etc.	Top soil = 8,342 cu.m. Overburden = 5,005 cu.m.																		
<b>AIR</b>																			
Air quality meeting requirements	To meet requirements as per rules																		
Noise level meeting requirements	To meet requirements as per rules																		
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.																		
<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. If not, should be installed solar energy panel.																		
<b>BIODIVERSITY</b>																			
Presence of any endangered species or red listed category	No. If any, should be properly conserved.																		
Loss of native species and genetic diversity	Yes, 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 EMP.																		
Likely displacement of fauna	No. If any, should be properly conserved.																		
Any introduction of alien / invasive species	No. If any, should be properly conserved.																		
<b>SOCIAL ASPECTS</b>																			
Proximity to nearest habitation	105 m. , NE side																		
CSR related to the project/ allocation/ time frame (details mandatory)	<table><tr><th colspan="3">Proposed common CSR Budget</th></tr><tr><th>Sl.No.</th><th>Particulars</th><th>Amount Rs. In lakhs</th></tr><tr><td>1.</td><td>Promotion of Education</td><td>Recurring = Rs. 2.19 lakhs Non-recurring = Rs. 5.57 lakhs</td></tr><tr><td>2.</td><td>Health Care</td><td>Recurring = Rs. 5.94 lakhs Non-recurring = Nil</td></tr><tr><td>3.</td><td>Development of Infrastructure</td><td>Recurring = Nil Non-recurring = Rs. 3.25 lakhs</td></tr><tr><td></td><td>Total</td><td>Recurring = Rs. 8.13 lakhs Non-recurring = Rs. 8.82 lakhs</td></tr></table>	Proposed common CSR Budget			Sl.No.	Particulars	Amount Rs. In lakhs	1.	Promotion of Education	Recurring = Rs. 2.19 lakhs Non-recurring = Rs. 5.57 lakhs	2.	Health Care	Recurring = Rs. 5.94 lakhs Non-recurring = Nil	3.	Development of Infrastructure	Recurring = Nil Non-recurring = Rs. 3.25 lakhs		Total	Recurring = Rs. 8.13 lakhs Non-recurring = Rs. 8.82 lakhs
Proposed common CSR Budget																			
Sl.No.	Particulars	Amount Rs. In lakhs																	
1.	Promotion of Education	Recurring = Rs. 2.19 lakhs Non-recurring = Rs. 5.57 lakhs																	
2.	Health Care	Recurring = Rs. 5.94 lakhs Non-recurring = Nil																	
3.	Development of Infrastructure	Recurring = Nil Non-recurring = Rs. 3.25 lakhs																	
	Total	Recurring = Rs. 8.13 lakhs Non-recurring = Rs. 8.82 lakhs																	
<b>GENERAL</b>																			
Does it have eco restoration programmes	The year wise programme of afforestation for the life of mine, about 3,000 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
Right & nature of ownership of land	Private land
Is the property forest land/govt. land/own land	Own land
Details of Authorized Signatory	Smt. Mariamma Mathew, Managing Partner M/s Valiakalathil Rock Crushing Unit, Poothakuzhy P.O., Pampady, Kottayam-686521
Details of NABET approved EIA consultant organization	M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 55 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.

2. Since the tenure of the SEIAA, Kerala had expired, the proponent submitted an application to MoEF directly for getting EC. On constitution of the Authority, MoEF referred it to SEIAA as per letter No. Z-11013/24/2015-IA-II (M) dated 01-04-2015 without the corresponding physical files. The proponent submitted application including Form I, Pre-feasibility report, EMP and Approved Mining Plan. The proposal was placed before 48<sup>th</sup> meeting of SEAC held on 06-11-15. The Committee deferred the item for field inspection. Field visit to the Quarry was carried out on 13.01.2016 by the sub-committee of SEAC. The representatives of the Proponent were present at the site at the time of site visit. The field inspection details are given below:

*"The quarry project site is located near Kangazha with its approach from Changanacherry- Vazhoor road. The land (3.3366 ha) falls within the gently undulating terrain exposing hard rock. The boundary pillars are erected and numbered. The respective GPS coordinates are given in the pillars. The rock type is mostly massive charnockite. Pockets of weathered rock with more than 1 m thick over burden (OB) and top soil is seen in the area. The entire drainage from the elevated land is not channelized and pumping is needed to dewater the active pit area. Steep cuttings are seen in the eastern part of the quarry. Bench formation is being introduced. Prominent streams are not in the vicinity. Rubber is the dominant land use in the patches with soil cover. Floral biodiversity is not observed as the area is considerably disturbed. Dwelling units are not seen in the immediate vicinity of 100 m but fairly dense settlement is seen along the main road. The crusher and associated facilities are located on the southern side.*

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

*1. Storm water pumped out of the active pit and let out into the valley must be provided with a mechanism to clarify water. Periodic desiltation is also mandatory.*

*2. Top soil and OB should be stored in a designated place on the lower slope.*

*3. The steep cuttings seen in the quarry must be fenced and provided with danger signs.*

*4. Considering the presence of many dwelling units in the vicinity, though beyond 100 m, dust suppression mechanism should be in place”*

3. The proposal was placed in the 52<sup>nd</sup> meeting of SEAC held on 8/9-02-2016. 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 following specific conditions in addition to the general conditions stipulated for mining projects.

1. Storm water pumped out of the active pit and let out into the valley must be provided with a mechanism to clarify water. Periodic de-siltation is also mandatory.
2. Top soil and Over burden should be stored in a designated place on the lower slope.
3. The steep cuttings seen in the quarry must be fenced and provided with danger signs.
4. Considering the presence of many dwelling units in the vicinity, though beyond 100m, dust suppression mechanism should be in place.
5. To the extent possible local Biodiversity Management Committee shall be involved in the environmental management/restoration activities.
6. Reclamation and eco-restoration should be done by planting native species.

4. The proposal was considered in the 51<sup>st</sup> meeting of SEIAA held on 29-3-2016. Considering the revelation in the site inspection report that there are several dwelling units in the vicinity, Authority authorized the Chairman to visit the site and report. It may also be clarified whether it is a working or new quarry. As decided, Chairman and the Member, SEIAA visited the quarry site on 20-4-2015. The details are given below:

*“This is a working quarry project on lease with an area of 3.3366 ha, of which 0.64 ha is mined from 2008 onwards having a production capacity of 1,25,000 MTA. The lease period expires on 2020. There is no other quarry is seen in operation within 500 meters. The land falls within the gently undulated terrain exposing hard rock. Although boundary pillars are erected and numbered, it is not fenced by barbed wires with the likely hood of accidents occurring in the already excavated deep pits. Mining is unscientific with no bench formation. Drainage from the elevated area is not channelized with the result that pits are filled with water. Steep cuttings are seen in the eastern part of the quarry. The area is considerably disturbed probably damaging the Biodiversity. Several dwelling units are seen beyond 100 m., but dense settlement is seen along the main road. The crusher and associated structures are located on the southern side. The depth of mined pits is about 25 meters.*

*However, based on overall evaluation, E.C may be issued with the following specific condition in addition to the conditions imposed by SEAC.*

- 1. Deep pits occurred due to mining should be reclaimed up to ground level.*
- 2. Fencing should be done all around the area with barbed wires.*
- 3. Dust Suppression system should be in place.*
- 4. In order to rectify the loss of Biodiversity active eco restoration should be done.*
- 5. An affidavit by the proponent to rectify the above conditions should be given before starting mining”.*

5. The proposal was again considered by the Authority in its 52<sup>nd</sup> meeting held on 29-4-2016. Authority decided to grant E.C subject to the specific conditions proposed by SEAC and the above additional conditions stipulated by SEIAA, in addition to the general conditions for mining projects. State Environmental Impact Assessment Authority Kerala hereby grant environmental clearance to the proposed quarry project by Smt. Mariamma Mathew in Sy. Nos. 431/3-1Pt, 431/3-2Pt, 436/4-1, 436/5, 438/4Pt, 438/5Pt, 438/6Pt, 438/9 Pt at Pampady Village, Pampady Panchayath, Kottayam Taluk, Kottayam District for an area of 03.3366 hectares subject to the specific conditions given in para 3, additional conditions insisted by SEIAA given in para 4, general conditions in the appendix, mitigation measures undertaken in the EMP, in the PFR and in the Mining Plan submitted.

6. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures in the Environment Management Plan in Chapter 2 of the Pre-Feasibility Report 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 12 (Progressive Mine Closure Plan) of the Mining 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 genuine complaint from anybody from the safety area or violation or non- compliance of any of the conditions stipulated herein.

8. Compliance of the conditions herein will be monitored by the Authority 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  
Smt. Mariamma Mathew, Managing Partner, M/s Valiakalathil Rock Crushing Unit,  
Poothakuzhy P.O., Pampady, Kottayam-686521.

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

To,

Smt. Mariamma Mathew,  
Managing Partner,  
M/s Valiakalathil Rock Crushing Unit,  
Poothakuzhy P.O., Pampady,  
Kottayam-686521.

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. Director, Mining & Geology, Thiruvananthapuram -4.
4. District Collector, Kottayam
5. Secretary, Pampady Grama Panchayat, Pampady P.O., Kottayam-686521.
6. Chairman, SEIAA.
- ✓ 7. Website.
8. S/f
9. O/c



Forwarded/ By Order

Administrator,  
SEIAA





# STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

## GENERAL CONDITIONS (for mining projects)


1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. 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.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. 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, if no other specific condition on reclamation of pit is stipulated in the E.C.
8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
9. **The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.**
10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/ control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m
20. No mining operations should be carried out at places having a slope greater than 45°.
21. 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.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. 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.
29. 100 m buffer distance should be maintained from forest boundaries.

30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
31. 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.
32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.
33. 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.
34. 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.
35. 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 State Environment Impact Assessment Authority (SEIAA) office 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.
36. 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.
37. 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 State Environment Impact Assessment Authority (SEIAA) office.
38. 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
39. 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.
40. No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.
41. The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.
42. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.
43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.
44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine

working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM<sub>10</sub> and PM<sub>2.5</sub> such as haul Road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
49. The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
50. The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.
51. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
52. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
54. 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.
55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.
56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.
57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.
58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area.
59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
60. Regular monitoring of flow rates and water quality up stream and down stream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.
61. Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.



  
for Member Secretary, SEIAA Kerala

**G. RAJEEV**  
Administrator  
State Environment Impact Assessment Authority  
Pallimukku, Pettah  
Thiruvananthapuram-695024  
Phone: 0471-2742264

1. The first part of the paper is a review of the literature on the effects of the 1997 Asian financial crisis on the economies of the Asian countries. The second part of the paper is a review of the literature on the effects of the 1997 Asian financial crisis on the economies of the Asian countries.

1. The first part of the paper is a review of the literature on the effects of the 1997 Asian financial crisis on the economies of the Asian countries. The second part of the paper is a review of the literature on the effects of the 1997 Asian financial crisis on the economies of the Asian countries.