



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The General Manager
KOCHI METRO RAIL LIMITED
Kochim Metro Rail Limited, Corporate Office, JLN Metro Station, 4th Floor,
Kaloor, Ernakulam,,Ernakulam,Kerala-682017

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the Ministry vide proposal number
IA/KL/MIS/144314/2020 dated 29 Jan 2022. The particulars of the environmental
clearance granted to the project are as below.

1. **EC Identification No.** EC22A033KL145836
2. **File No.** 10-23/2020-IA-III
3. **Project Type** New
4. **Category** A
5. **Project/Activity including
Schedule No.** 7(e) Ports, Harbours
6. **Name of Project** Integrated Urban Regeneration and water
Transport System (IURWTS) in Cochin
7. **Name of Company/Organization** KOCHI METRO RAIL LIMITED
8. **Location of Project** Kerala
9. **TOR Date** 13 May 2020

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

Date: 04/04/2022

(e-signed)
Amardeep Raju
Scientist E
IA - (INFRA-1 sector)

*Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH. Please quote identification
number in all future correspondence.*

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2. The proposed project envisages the development of the Edappally Canal (11.23 km), Thevara – Perandoor Canal (9.88 km), Chilavanoor Canal (11.15 km), Thevara Canal (1.405 km) and Market Canal (0.664 km) in Kochi. The overall objective was to improve inland Transport in the canal systems and have an intermodal connectivity with an integration of the Rail Metro and Water Metro. As a part of the project the activities like Cleaning of Canals, De-silting & Cutting, Bank Protection, Reconstruction of Cross Structures and Foot Over Bridges, Sanitary Sewer Line & STPs, Sanitation Facilities, Jetties and Infrastructure Development will be carried out. The Geo-coordinates of project site is N9°56'36" to N10°2'40", E 76°16'25", E 76°20'6".

3. TOR was granted vide letter No.10-23/2020-IA-III dated 13.05.2020 during the 50th EAC (Infra-2) meeting held on 22nd to 24th April, 2020.

4. The proposed project falls under 7 (e) Ports, Harbour, Cat –A as per EIA notification 2006, and its subsequent amendments. Total Project Cost is ₹1528.27 Cr.

5. Total proposed land area is 41 Ha. The land required for these projects falls within periphery of the canal. The land belongs to the Government as well as private holders.

6. Land use /Land cover of project site

S. No.	Landuse/Landcover	Area (Ha)	Area (%)
1	Vegetation	1	2.00
2	Water/River	35	85.50
3	Built up area/Settlement	5	12.50
Total		41	100.00

7. **Water Bodies & impact on Drainage:** The major work is in the canals and side of Canals. At present, all the canals are polluted with domestic sewage and silt. By cleaning the same, the canals shall be rejuvenated and shall be used for navigation. The project will not affect the natural drainage in the area.

8. **Water requirements:** The total water required during operation phase for passengers and staff expected as 225.0 KLD. The source of water is Kerala Water Authority. Construction Water: 1 MLD from wells and surface water sources. Water required during construction phase will also be met through private water tankers. No Ground water extraction is proposed.

9. **The Public Hearing** for Integrated Urban Regeneration and Water Transport System (IURWTS) project was conducted by Regional office of Kerala State Pollution Control Board (KSPCB), Ernakulam on 16.03.2021 at the Collectorate conference hall, Kakkanad, Dist. Ernakulum.

10. The boundary of ESZ of the Mangalavanam Bird sanctuary is around 670 m away from the nearest project location.

11. Waste Management:

- i. Boats do not have any toilets nor use fresh water for any purpose, other than engine cooling water.
- ii. There is no storage of water, cafeteria/ Restaurant or food service provided on board which would generate waste.

- iii. Domestic effluents in the jetties will be treated in the septic tanks with bio-digesters at the same site itself.
- iv. Total sewage from the catchments of the 5 canals will be collected and treated in 4 STPs
- v. Bins shall be provided at appropriate locations in the terminals to collect the Primary waste storage in segregated manner.
- vi. Waste would be collected by the municipal employees, from each terminal, deploying suitably sized waste trucks. Frequency of collection shall depend on the terminal size. However, the waste shall be collected at least once per day.

12. **STP details:** Four new Sewage Treatment Plants (STPs) of total 31 MLD is proposed to be constructed to treat the waste water entering into canals.

S. No	STP location	Proposed STP
1	Elamkulam STP - Chilavanoor & TP south	10 MLD
2	Vennala STP - Edappally south	10 MLD
3	Muttar STP-Edappally north	7 MLD
4	Perandoor STP - TP north	4 MLD
	Total MLD	31 LD

13. **Tree cutting and Green belt development:** As part of the project around 5,000 trees will be cut for the project activities. As part of the afforestation program, 10 times the trees cut will be planted. As per the estimate around 22,000 trees will be planted along the canal, around the project facilities such as jetties, STPs and Canal Oriented Development areas. This will contribute to the afforestation program required for this project. Green belt will be developed around the four STP sites, 30 Jetties, Areas of Canal Oriented Development in Edappally Canal and all available places on the banks of canals after widening and laying the sewer lines.

14. **Energy conservation measures with estimated saving:** Solar plant of 200 KW capacity will be made as part of the project.

15. **Rain Water Harvesting:** Rain water harvesting system is proposed in 4 STP locations of 10KL capacity.

16. CRZ mapping for the proposed project has been done through Institute of Remote Sensing (IRS) Anna University, Chennai, an agency authorized by MoEFCC. CRZ Recommendation from KCZMA Obtained on 28.01.2022. The CRZ details are as follows:

CRZ category	Proposed Cross Structures Bridge/ Foot Bridge	Jetty	Deepening & Widening	Sewer Line Laying Area	STP	Canal Beau-tification/ Walkway
Total Area in Sq.m						
Edappally Canal						
CRZ IB	15.80			1,104.70		283.60
CRZ II	204.10	5,070.50	1,975.90	15,461.90	7,304.60	42,730.00
CRZ IVB	914.00	119.40	579.50	8,404.60		10,977.90
Non CRZ	3,813.80	13,538.90	32,039.10	24,846.00	21967.3	14,778.60
Chilavannor Canal						
CRZ IB	401.90	884.20	34.8	1642.8	1035.4	

CRZ category	Proposed Cross Structures Bridge/ Foot Bridge	Jetty	Deepening & Widening	Sewer Line Laying Area	STP	Canal Beau-tification/ Walkway
CRZ II	668.70	775.90	8762.9	18601.4	18317.1	
CRZ IVB	971.50		4703.5	5944.7		
Non CRZ	1,014.80	2,338.40	57865.8	28668.4	10456.4	
Thevara Perandoor Canal (TP Canal)						
CRZ IB			1.90	16.3		
CRZ II	337.40	1,929.30	1,925.90	13902	3921.5	
CRZ IVB	719.20	143.50	1,736.10	6005.3	116.1	
Non CRZ	1,979.70	3,269.40	32,197.40	175312		
Thevara Canal						
CRZ IB	135.1			586.7		
CRZ II	716.2	240.9		10814.2		
CRZ IVB	394.5	26.6		2695.3		
Non CRZ	433.6	193.9		35.8		
Market Canal						
CRZ IB	638.2					472.1
CRZ II	152.2					1400.2
CRZ IVB						25.3

17. **Foreshore facilities:** As per the navigation standards of IWAI, for a canal influenced by tidal level fluctuations a minimum navigation requirement depth is to be maintained all throughout the year. To fulfil the depth requirement, the criteria as per standard guidelines for small canals was followed. A depth of 1.2 m below the low water level (LWL) of +0.3m MSL is estimated and the deepening quantity estimated accordingly. Total quantity estimated from deepening is 4,54,013 m³ and from widening is 2,41,401 m³, totaling to 6,95,414m³. Out of the total quantity estimated 20 percent is proposed to be used for canal embankment, landscape works and remaining conveyed to land filling sites. Quantity of the material to be conveyed for disposal is 4,29,681 m³. The Rest of the soil from the canals shall be disposed in the landfill site of M/s Kerala Enviro Infrastructure Ltd (KEIL), is operating “Common Treatment, Storage and Disposal Facilities (TSDF) Project for the soil cover.

18. **Land acquisition and R&R issues:** The total land requirement for the project is 41 ha of which 13.68 ha is govt. land, 9.65 ha is government land in private possession and 17.37 ha is private land. Policy has been developed in accordance with the requirements of the Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013 (RTFCTLARRA, 2013). Total budget for implementation of the Rehabilitation and Resettlement Plan is Rs.196.72 crore.

19. **Employment Potential-** Total Employment as part of the project will be 2400. Around 2150 people will be employed in construction phase. In operation phase 250 employment will be generated.

20. Project Benefits:

- i. Improvement of intermodal connectivity with the Rail Metro and Water Metro by way of restoration of canals.

- ii. Flood mitigation and flood plain management.
 - iii. Canal development will create beautifully landscaped canal spaces for leisure and tourism, cute shops, and eateries for creating an illusion of urban vitality along the canal banks and enhanced livelihood opportunities. This would further improve the city's image
 - iv. Sanitation facilities and sewage disposal system integrated to serve the inhabitants of the project command.
 - v. Restrict dumping of waste, control encroachments, stop sewage mixing etc.
 - vi. Infrastructure / property development along the canals through Value Capture Financing & Transit Oriented Development for generating revenue.
 - vii. Improve monitoring of the canal systems, which will reduce to zero waste disposal, mosquito menace, and carbon reduction
 - viii. Enhanced utility of the canal waterfront as a natural attraction for social and economic activity for locals and tourists.
21. **Details of Court cases:** No court case is pending against the proposed project.
22. Studies carried out for the project as per the ToR:

Studies	Work carried out
Biodiversity and Marine Ecological Survey	Department of Marine Biology, Microbiology & Biochemistry of Cochin University of Science & Technology
Flood management plan Modelling study	Central Water and Power Research Station (CWPRS), Pune
HTL/LTL Demarcation	Institute of Remote Sensing, Anna University
Ambient air quality, Ground water quality and Soil quality	Standard Analytical Laboratory, Kochi, NABL Accredited.

23. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues in its 289th meeting during 17th – 18th February, 2022, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions.

24. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Environmental Clearance for the “*Development of Integrated Urban Regeneration and water Transport System (IURWTS) in Kochi, Kerala by M/s Kochi Metro Rail Limited*” under the EIA Notification, 2006 as amended and CRZ Notification 2011, subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.

SPECIFIC CONDITIONS

Statutory Clearances

- i. The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as

applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.

- ii. All the recommendations and conditions specified by the Kerala State Coastal Zone Management Authority (KCZMA) vide letter No 159/AI/2021/KCZMA dated 28th January 2022 shall be complied with.
- iii. Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- iv. Necessary approvals to be taken during implementation and commissioning from statutory bodies concerned.
- v. Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

Dredging and Waste Disposal

- vi. Dredging shall be carried out in the confined manner to minimize the impacts on marine environment. In no case the dredged material should be accumulated along the canals more than 24 hrs. The disposal of dredged soil from the canals, shall be disposed of to M/s Kerala Enviro Infrastructure Ltd (KEIL), which is operating "Common Treatment, Storage and Disposal Facilities (TSDF). Orders/directions of Hon'ble NGT for dumping of waste/dredged materials shall be followed in letter and spirit.
- vii. While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- viii. Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.

Pollution Control

- ix. The project proponent shall comply with the air pollution mitigation measures as submitted.
- x. Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.



Safety and Mitigation

- xi. The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- xii. No underwater blasting is permitted.
- xiii. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xiv. Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- xv. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

STANDARD CONDITIONS:

I. Statutory compliance:

- (i) Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- (iii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

II. Air quality monitoring and preservation:

- (i) The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.
- (ii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.



- (iii) Dust collectors shall be deployed in all areas where surface cleaning operations are to be carried out.
- (iv) Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- (v) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

III. Water quality monitoring and preservation:

- (i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- (ii) Measures should be taken to contain, control and recover the accidental spills of fuel
- (iii) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (iv) Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- (v) Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
- (vi) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- (vii) No diversion of the natural course of the river/creek/water body etc shall be made without prior permission from the Ministry of Water resources.
- (viii) All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.

IV. Noise monitoring and prevention:

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.



- (ii) Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (iv) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures:

- (i) Provide LED lights in offices and project areas.

VI. Waste management:

- (i) Dredged material shall be disposed safely in the designated areas.
- (ii) Shoreline should not be disturbed due to dumping. The details shall be submitted along with the six monthly monitoring reports.
- (iii) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- (iv) The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- (v) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- (vi) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (vii) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
- (viii) Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.

VII. Green Belt:

- (i) Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
- (ii) Top soil shall be separately stored and used in the development of green belt.

VIII. Marine Ecology:

- (i) Dredging shall not be carried out during the fish breeding and spawning seasons.



- (ii) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
- (iii) The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
- (iv) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
- (v) The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

IX. Public hearing and human health issues:

- (i) The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
- (ii) Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
- (iii) Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
- (iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (v) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) Occupational health surveillance of the workers shall be done on a regular basis.

X. Environment Responsibility:

- (i) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- (ii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iii) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be

kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

- (iv) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

XI. Miscellaneous:

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (vi) The criteria pollutant levels namely; PM_{2.5}, PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (vii) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (x) No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- (xi) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act,

1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

- (xiii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xiv) The Regional Office of this Ministry 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.
- (xv) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvi) Any appeal against this EC 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.
22. This issues with the approval of the Competent Authority.



(Amardeep Raju)
Scientist-E

Copy to:

1. The Secretary, Department of Environment, Government of Kerala, Thiruvananthapuram, Kerala.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
3. The Member Secretary, Kerala State Pollution Control Board, Pattom P.O., Thiruvananthapuram - 695 004, Kerala.
4. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bengaluru – 560034
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/Record File
7. Notice Board.



(Amardeep Raju)
Scientist-E