



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Kerala)

To,

The SPECIAL OFFICER
 CAPITAL REGION DEVELOPMENT PROJECT

Pankaj, TC No. 15/25 15/26, Vellayambalam, Thiruvananthapuram-10 - 695010

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 SEIAA vide proposal number SIA/KL/NCP/71500/2017 dated 04 Feb 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1. EC Identification No. | EC23B034KL130295 |
| 2. File No. | 1143/EC/SEIAA/KL/2017 |
| 3. Project Type | New |
| 4. Category | B1 |
| 5. Project/Activity including Schedule No. | 7(f) Highways |
| 6. Name of Project | Proposed Outer Ring Road (ORR) under CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-Thekkada -Vizhinjam) |
| 7. Name of Company/Organization | CAPITAL REGION DEVELOPMENT PROJECT |
| 8. Location of Project | Kerala |
| 9. TOR Date | 04 Jan 2018 |

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

Date: 15/03/2023

(e-signed)
Dr. Venu V IAS
Member Secretary
SEIAA - (Kerala)

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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PROCEEDINGS OF THE STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY – KERALA, THIRUVANANTHAPURAM

*(Present : Dr.H.Nagesh Prabhu IFS (Retd), Chairman, Shri.K.Krishna Panicker,
Member, Dr.V.Venu IAS, Member Secretary)*

**Sub: SEIAA - Environmental Clearance for the Outer Ring Road (ORR) under
CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-
Thekkada-Vizhinjam)- Granted – Orders issued.**

State Level Environment Impact Assessment Authority, Kerala

Proposal No. SIA/KL/NCP/71500/2017

File No. 1143/EC/SEIAA/KL/2017

- Ref: 1. Application from Sri. Anand Singh, Special Officer, Capital Region Development Project received on 04.02.2022
2. Minutes of the 136th meeting of SEAC held on 9th to 11th January 2023
3. Minutes of the 123rd meeting of SEIAA held on 27th & 28th January 2023
4. G.O(Rt.) No.29/2019/Env dt.12.04.2019.

ENVIRONMENTAL CLEARANCE NO. 54/Q/2023

Sri. Anand Singh, Special Officer, Capital Region Development Project, Pankaj, TC No. 15/25 & 15/26, Vellayambalam, Thiruvananthapuram- 695010, submitted an application for Environmental Clearance via PARIVESH, for the proposed Outer Ring Road (ORR) under CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-Thekkada-Vizhinjam).The project details are as follows:

SL.No.	Particulars	Details
1	Name of the Project	Development of Proposed Outer Ring Road (ORR) under CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-Thekkada-Vizhinjam).
2	Name of the Sector & Schedule No. (in the EIA Notification, 2006)	7(f) Highways
3	Name & Address of the Project Proponent	Sri. Anand Singh, Special Officer, Capital Region Development Project, Pankaj, TC No. 15/25 & 15/26, Vellayambalam, Thiruvananthapuram- 695010
4	Location	Proposed alignment falls in Thiruvananthapuram district of, Kerala. The southern ring of the proposed alignment is divided into two sections. Section 1 begins at Thekkada and ends at Vizhinjam and section 2 begins at Thekkada and ends at Mangalapuram. The proposed road passes through Manickal, Vembayam, Poovathoor & Aruvikkara Village of Nedumangad Taluk; Vilappil, Kattakada, Maranallur & Malayinkezhu Village in Kattakada Taluk; Pallichal, Balaramapuram & Vizhinjam Village of Neyyattinkara Taluk and Mangalapuram, Andoorkonam, Pothencode and Venganoor Village of Thiruvananthapuram Taluk
5	Physical Dimensions	Length Section-1: 35.314 km Section-2: 12.659 km RoW-70 m Width four lane which can be expandable upto six lane
6	Coordinates	Coordinates of the start and end point of the Section 1 are: <ul style="list-style-type: none"> • Thekkada 8°37'43.11" N; 76°57'27.92" E • Vizhinjam: 8°22'45.16" N; 77°0'50.40" E Coordinates of the start and end point of Section 2 are: <ul style="list-style-type: none"> • Thekkada 8°37'39.77" N; 76°57'27.69" E • Mangalapuram: 8°37'22.74" N; 76°50'55.73" E
7	Road crossings	64 road crossings including 3 major crossings for a total length of 47.973 km that amounts to approximately 1 cross

		road in every 0.75 km
8	River crossings	13 Rivers/streams are crossing the project road, which includes, <ul style="list-style-type: none"> • Killi river at km 35.826 • Karmana river at km 38.081
9	Length of the Southern Ring	47.973 Kms

2. In the 136th SEAC meeting, the committee verified the documents and found them satisfactory. The SEAC examined the complaints and observed that the general nature of complaint is about alignment. It is understood that the Project Proponent examined various alternate alignment and the present alignment was found the most feasible one. The Committee also observed that adequate time was given for raising complaint during public hearing. Since there are persistent complaints, the Committee decided to recommend to SEIAA to suggest the Project Proponent to establish an additional complaint readdressal mechanism to address such complaints. The presentation of the project was done in 127th meeting of SEAC and clarifications sought by the Committee was presented in the 134th meeting of the SEAC. Based on discussions, the Committee recommended EC for 10 years with the certain Specific Conditions in addition to General Conditions.

3. In the 122nd SEIAA meeting, the Authority decided to issue Environmental Clearance for 10 years with the following Specific Conditions in addition to General Conditions.

1. *As per GO (MS) No. 39/2022/LSGD dated 25.2.2022, the Government of Kerala has introduced green rating and green building certification to buildings based on green standards. The guidelines published as part of the GO should be adhered to wherever applicable.*
2. *Provide safe and healthy basic facilities for construction workers as per the Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.*
3. *Sprinkling of water should be done frequently along the haul roads and construction sites using appropriate technique.*

4. *Encapsulation of dust sources, erection of screen/barriers for crushers/hot mix plant, sprinkling of water mist spray etc. should be adopted.*
5. *Storm water drainage and its interconnection with the natural drain of the locality should be ensured and the adequacy should be monitored and corrections, if any, should be made as and when required. The details along with geotagged photographs of monitoring and corrections made, if any, should be included in the HYCR.*
6. *Avenue plants and green belt should be developed with trees and herbs having high pollution sink potential and geotagged photographs of the same should be included in the HYCR*
7. *Compensatory afforestation for the trees removed from the alignment and other areas involving the project should be carried out as per G O. (Rt.) No.172/2010/F&WLD dated 21/04/2010 at the rate of 1:10.norms in public space available near the project location and in the lands of public institutions and industries.*
8. *Protocols/procedures for addressing the slope stability, landslips, rock fall etc. should be adopted strictly*
9. *Specific and appropriate management plan should be adopted for addressing the impact on water bodies and low lying areas along the proposed project”.*

4. Environmental Clearance as per the EIA Notification 2006 is hereby accorded to Sri. Anand Singh, Special Officer, Capital Region Development Project, Pankaj, TC No. 15/25 & 15/26, Vellayambalam, Thiruvananthapuram- 695010, for the proposed Outer Ring Road (ORR) under CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-Thekkada-Vizhinjam) for 10 (ten) years subject to the Specific Conditions in Para 3 above, and all the environmental impact mitigation and management measures undertaken by the Project Proponent in the Form I, EIA, EMP, and PFR submitted to SEIAA. The assurances and clarifications given by Project Proponent will be deemed to be a part of this Proceedings as if incorporated herein. Also the General Conditions mentioned below will be applicable and have to be strictly adhered to.

5. The Environmental 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.

6. Validity of the Environmental Clearance will be for a period of **Ten (10) years**, subject to earlier review of EC in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.
7. Compliance with the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the Regional Office of the Ministry of Environment, Forest & Climate Change, Govt. of India, Bangalore. Necessary assistance for the inspection should be provided by the Project Proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring. Instances of violation if any shall be reported to the District Collector, Thiruvananthapuram.
8. The Half Yearly Compliance Report (HYCRs) with name of the project, EC No. and date, the period of submission with its contents, compliance report and environmental monitoring data & covering letter have to be uploaded in the Parivesh Portal as O.M. F.No.IA3-22/1/2022-IA-III(E)-17264 dated 14.06.2022 and the website of the project proponent. Hardcopy of HYCRs shall not be acceptable.
9. The given address for correspondence with the authorised signatory of the project is Sri. Anand Singh, Special Officer, Capital Region Development Project, Pankaj, TC No. 15/25 & 15/26, Vellayambalam, Thiruvananthapuram- 695010.

GENERAL CONDITIONS AND IRC GUIDELINES

- 1) Green belt must be developed using exclusively native species. No exotic species to be used for the same.
- 2) No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- 3) The Project Proponent shall obtain permission from the Competent Authorities for tree felling along the proposed alignment.
- 4) In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing should be stopped during the

night time between 8.00 pm to 6.00 am. No noisy construction activities will be permitted around educational institutions/health centers (silence zone) up to distance of 100 m from the sensitive receptors. All plants and equipment used in construction shall strictly conform to the CPCB/SPCB noise standards.

- 5) Traffic Control Devices/Road Safety Devices/Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67, IRC:79, IRC:103 and Section 800 of MoRTH Specifications.
- 6) All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/drainage systems are not to be disturbed.
- 7) While constructing the over bridges as proposed over major water bodies efforts should be made to avoid construction of pillars in beds of water bodies.
- 8) Cut and fill works shall be carried out strictly in accordance with the design drawings proposed at the time of appraisal of the project.
- 9) Sidewalk shall be provided along the bridges.
- 10) Rain Water Harvesting including oil and grease trap shall be provided as prescribed by CGWB guidelines. Water harvesting structures shall be located at every 500m along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.
- 11) Construction camps shall be proposed 500 m away from the nearest settlements to avoid conflicts and stress over the infrastructure facilities with the local community. Location for stockyards for construction materials shall be identified at least 1000m from water sources. Garbage tanks and sanitation facilities will be provided at camps.
- 12) The Project Proponent is under obligation to implement commitments made in the to the issues raised during public hearing Conceptual Plan/Environment Management Plan, which forms the part of this EC.
- 13) All the Indian Road Congress (IRC) Guidelines wherever applicable may be followed.

- 14) Dust Mitigation Measures stipulated for Construction and Demolition Activities as provided in the amendment Notification GSR 94€ dated 25.01.2018 of MoEF&CC. Provisions for management of construction and demolition activities related thereto as contained in Construction and Demolition Waste Management Rules, 2016.
- 15) The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the national grid in future. Energy conservation measures like installation of CFLs/TFLs for the lighting the areas should be integral part of the project design and should be in place before project commissioning. Use 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. Use of solar panels may be done to the extent possible.
- 16) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit
- 17) A First Aid Room will be provided in the project both during construction and operation of the project.
- 18) Adequate drinking water and sanitary facilities should be provided for construction workers at the site, provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- 19) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- 20) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.
- 21) The diesel generator sets to be during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- 22) Fly ash should be used as building material in construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August 2003. (The above condition is applicable Power Stations).
- 23) Ready mixed concrete must be used in construction, where ever required.

- 24) Storm water control and its re-use per CGWB and BIS Standards for various applications.
- 25) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 26) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings
- 27) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- 28) A separate environmental management and monitoring cell with qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 29) The project proponent shall comply the conditions stipulated by the statutory authorities concerned
- 30) Acoustic enclosures should have been provided to reduce sound amplifications so that the noise level is kept within prescribed standards given by CPCB/KSPCB.
- 31) The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
- 32) Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
- 33) The transportation of minerals should be done in covered trucks to contain dust emissions.
- 34) The Project Proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- 35) 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.

- 36) In the case of any change(s) in the scope of the project, 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.
- 37) 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.
- 38) 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.
- 39) 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. 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.
- 40) The Environmental Clearance shall be put on the website of the company by the Project Proponent.
- 41) 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.
- 42) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} 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
- 43) Measures should be taken for control of noise levels below 85 dBA in the work environment.
- 44) 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.

- 45) 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.
- 46) 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.
- 47) 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.
- 48) 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.
- 49) 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.
- 50) All vehicles used for transportation shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'
- 51) 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.

Sd/-

**Administrator, SEIAA
For Member Secretary, SEIAA**

To,

Sri. Anand Singh,
Special Officer,
Capital Region Development Project,
Pankaj, TC No. 15/25 & 15/26,
Vellayambalam, Thiruvananthapuram- 695010

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.(through e-mail: rosz.bng-mefcc@gov.in)
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The Director, Directorate of Environment & Climate Change, 4th Floor KSRTC Bus Terminal, Thampanoor, Thiruvananthapuram, Kerala 695001.
4. The District Collector, Thiruvananthapuram
5. The Director, Mining & Geology, Thiruvananthapuram -4.
6. The Member Secretary, Kerala State Pollution Control Board
7. The District Geologist, Thiruvananthapuram
8. The Chairman, SEIAA.
9. Website.
10. S/f
11. O/c