ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

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

To,

The Regional Director
MALABAR INSTITUTE OF MEDICAL SCIENCES LIMITED
Chala East, Kannur, Kerala-670621.,,Kannur,Kerala-670621

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/250024/2022 dated 23 Jan 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22A038KL110532**
2.	**File No.**	21-2/2022-IA-III
3.	**Project Type**	Expansion
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	8(a) Building and Construction projects
6.	**Name of Project**	Environmental Clearance for the proposed expansion of existing Hospital project developed by M/s Malabar Institute of Medical Sciences Ltd.
7.	**Name of Company/Organization**	MALABAR INSTITUTE OF MEDICAL SCIENCES LIMITED
8.	**Location of Project**	Kerala
9.	**TOR Date**	N/A

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

Date: 04/04/2022

(e-signed)
Dharmendra Gupta
Scientist F
IA - (INFRA-2 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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F. No. 21-2/2022-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 110003
29th March, 2022

To,

Shri Farhan Yashin
Regional Director,
M/s Malabar Institute of Medical Sciences Ltd.
Chala East, Kannur-670621, Kerala
E. mail: mims.kannur@asterhospital.com

Subject: **Environmental Clearance for Proposed expansion of existing Hospital project with increase in built- up area from 23,421.68 sqm. to 30,370.28 sqm. at Chembilode Village & Panchayat, Kannur Taluk & District, Kerala by M/s Malabar Institute of Medical Sciences Ltd. – regarding.**

Sir,

This has reference to your Application/Proposal No. IA/KL/MIS/250024/2022; received on 23rd January, 2022 through Parivesh Portal for Environmental Clearance (EC) for Proposed expansion of existing Hospital project with increase in built- up area from 23,421.68 sqm. to 30,370.28 sqm., at Chembilode Village & Panchayat, Kannur Taluk & District, Kerala by M/s Malabar Institute of Medical Sciences Ltd.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006; as amended and notified under the Environment (Protection) Act, 1986 (29 of 1986), the above-mentioned project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to non-existence of SEIAA in Kerala, the proposal required appraisal at Central level by sectoral EAC.

3. Accordingly, the abovementioned proposal for Environmental Clearance has been examined by the Expert Appraisal Committee (Infra-2) first in its 81st meeting held on 31st January, 2022 and in its 83rd meeting held during 28th February, 2022 and 2nd March, 2022.

4. The details of the project, as per the application and documents submitted by the project proponent, and also as informed during the above-mentioned meeting of EAC (Infra-2) are as under:

i. The project is located at Survey Nos. 48/1, 50/3 & 51/4, 49/185, 49/141, 49/123, 49/184, 49/126, 49/109, 49/170, 49/182, 49/183, 49/134, 49/135, 49/122, 49/110, 49/162, 49/124, 50/2, 48/120, Chembilode Village & Panchayat, Kannur Taluk & District, Kerala.

ii. The proposal is for 'Expansion'.

iii. Earlier, the project has obtained Environmental Clearance (EC) from MoEF&CC vide F. No. 21-19/2018-IA-III dated 15.06.2018. The construction work for the built-up area of 23,421.68 sqm. is completed at site based on the EC obtained. The building has also obtained occupancy certificate vide letter dated 25.01.2019and the hospital is functioning. Management has now decided to expand the existing project and the total cumulative built-up area after expansion will be 30,370.28 sqm. (Existing built-up area 23,421.68 sqm. + proposed built-up area 6,948.6 sqm.).

iv. Certified Compliance Report (CCR) was issued by Integrated Regional Office, MoEF&CC, Bangalore vide file no. EP/12.1/2018-19/05/KER/288 dated 17.01.2022 and it is stated that "the status of compliance of project is rated as SATISFACTORY".

v. With the proposed expansion, the total plot area will be 18,348 sqm. and total construction (Built-up) area will be 30,370.28 sqm. The project will comprise of 2 nos. hospital building blocks. Maximum height of the building is 30.75 m. The details of buildings are as follows:

Building Block	Max. No. of Floors	Max. Height (m)	Built-up area (sqm.)
Existing Hospital Block	B + G + 7 floors	29.80 m	23,421.68
Proposed Hospital Block	G + 8 floors	30.75 m	6,948.60
Total			**30,370.28**

vi. The details of the proposed expansion are given as follows:

S. No.	Particulars	Details as per EC accorded MoEF&CC in 2018 (A)	Details as per additional facility proposed (B)	Cumulative details (A+B)	Remarks

1.	Survey Nos.	48/1, 50/3 & 51/4	49/185, 49/141, 49/123, 49/184, 49/126, 49/109, 49/170, 49/182, 49/183, 49/134, 49/135, 49/122, 49/110, 49/162, 49/124, 50/2, 48/120	48/1, 50/3 & 51/4, 49/185, 49/141, 49/123, 49/184, 49/126, 49/109, 49/170, 49/182, 49/183, 49/134, 49/135, 49/122, 49/110, 49/162, 49/124, 50/2, 48/120	Addition of Survey Nos. 49/185, 49/141, 49/123, 49/184, 49/126,49/109, 49/170, 49/182, 49/183, 49/134, 49/135, 49/122, 49/110, 49/162, 49/124, 50/2, 48/120
2.	Plot area	1.0672 ha	0.9702 ha.	1.8348 ha* (18,348 sqm.) Net area available for the project	EC obtained plot area (a) = 1.0672 ha. Additional land area (b) = 0.9702 ha. Total land area (a + b) = 2.0374 ha. Land area left for road widening = 0.2026 ha. Net area available for the project = 2.0374 ha. - 0.2026 ha. = 1.8348 ha.
3.	Facilities	240 Beds	100 Beds	340 Beds	Addl. 100 beds
4.	Built-up area	23,421.68 sqm.	6,948.6 sqm.	30,370.28 sqm.	Increase in BUA of 6,948.6 sqm.
5.	FSI/FAR area	21,238.83 sqm.	6,884.98 sqm.	28,123.81 sqm.	Increase in FSI/FAR area of 6,884.98 sqm.
6.	Max. height of the building	29.80 m.	30.75 m.	30.75 m.	Proposed building increase the height

7.	Max. no. of floors	B + G + 7 floors	G + 8 floors	B + G + 7 floors (existing building) & G + 8 floors (proposed building)	Proposed building is G + 8 floors
8.	No. of buildings	1 no.	1 no.	2 nos.	1 addl. building block
9.	Connected power load	2,292.72 kW	382.28 kW	2,675 kW	Increase in 382.28 kW connected power load
10.	Capacity of D.G. Sets & nos.	600 kVA × 3 nos. = 1,800 kVA	500 kVA x 1 nos. = 500 kVA	600 kVA × 3 nos. + 500 kVA x 1 nos. = 2,300 kVA	Increase of 500 kVA D.G. capacity
11.	Parking facilities	228 Cars + 470 T.W.	86 Cars + 30 T.W.	314 Cars + 500 T.W.	Increase of parking facilities for 86 Cars + 30 T.W.
12.	Solid waste generation	348 kg/day	162 kg/day	510 kg/day	Increase of SW generation 162 kg/day
13.	Bio-medical waste generation	168 kg/day	36 kg/day	204 kg/day	Increase of BMW generation 36 kg/day
14.	Daily fresh water requirement	115 KL	32 KL	147 KL	Increase in fresh water req. of 32 KL
15.	Daily domestic water req.	142 KL	60 KL	202 KL	Increase in Dom. water req. of 60 KL
16.	Daily sewage generation	114 KL	48 KL	162 KL	Increase in sewage generation of 48 KL
17.	STP capacity	137 KLD	63 KL	200 KL	Increase of STP capacity of 63 KL
18.	Project cost	₹ 91 Crores	₹ 47 Crores	₹ 138 Crores	Increase of project cost of ₹47 Cr.
19.	Employment potential	About 700 jobs	About 350 jobs	About 1,050 jobs	Increase of job potential

vii. During construction phase, total water requirement is expected to be 25 KLD which will be met by recycled water from portable STP/stored rain water (tank) for construction purposes and well water/Kerala

Water Authority (KWA) supply for meeting the domestic water requirement expected to be 7 KLD. During the construction phase, portable STP will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.

viii. During operational phase, total water demand of the project is expected to be 293 KLD and the same will be met by 147 KLD fresh water from stored rain water tank/KWA/well water and 146 KLD recycled water. Wastewater generated (162 KLD) will be treated in STP of total 200 KLD capacity. 146 KLD of treated wastewater will be generated which will be completely recycled and re-used within the project for flushing (104 KLD), for gardening (1 KLD), for boiler (15 KL) and for make-up water requirement for cooling towers attached with the HVAC system (26 KLD).

ix. About 510 kg/day solid waste will be generated in the project. The biodegradable waste (about 255 kg/day) will be processed in bio-gas generation plant (existing)/bio-bin system (proposed) and the non-biodegradable waste generated (about 255 kg/day) will be handed over to authorized local vendor. An area equivalent of about 125 sqm. for about 15 days storage of non-biodegradable waste would be provided. The hazardous waste (used oil & discarded batteries attached to D.G. sets) will be stored in the designated services area and will be disposed to CPCB/SPCB authorized vendors.

x. From the hospital, about 204 Kg/day bio-medical waste would be generated. The bio-medical waste would be segregated at source by providing appropriate colour coded bins/containers as per the colour coding provided in the Bio-Medical Waste (Management & Handling) Rules, 2016. The segregated Bio-medical waste from the existing hospital is outsourced through Kerala State Pollution Control Board authorized agency (M/s Indian Medical Association Goes Eco Friendly, IMAGE) and the same arrangement will be continued for the proposed facility also. An MoU is made between PP & IMAGE.

xi. The use of unsealed radioisotopes regularly gives rise to radioactive waste, which has to be disposed of in a responsible and safe manner. The waste includes disposable containers (vials, syringes etc.) partially decayed or surplus unsealed sources. The radioactive waste would be stored in a "Decay Room" and the radiation level checked through "Dose Calibrator". All the radiation safety guidelines of Atomic Energy Regulatory Board (AERB) Bhabha Atomic Research Centre (BARC) with regard to the disposal of radioactive waste would be followed. A radiation safety officer will be employed to ensure the radiation safety guidelines.

xii. Old sheds/structures with total built-up area of about 100 sqm. existing within the site will be demolished for the development of the proposed site. The salvageable materials from the demolition debris would be recovered. The remaining demolition debris and the

construction debris would be used for site preparatory works.

xiii. The excavated soil will be used for back filling work, topsoil will be preserved for landscaping and the remaining excavated earth will be used for internal road construct ion work.

xiv. The total power requirement during operation phase is 2,675 kW (connected load) and will be met from Kerala State Electricity Board (KSEB) & DG Sets (600 kVA × 3 nos. + 500 kVA × 1 nos.) as a standby power backup arrangement.

xv. Solar PV installation of total 267.5kWp capacity (40 kWp existing + 227.5 kWp proposed) shall be provided to meet 10% of the connected load.

xvi. Rooftop rainwater of buildings will be collected in RWH tanks of total 118 KL capacity (73 KL existing + 45 KL proposed) for harvesting after filtration.

xvii. Parking facility for 314 cars + 500 two wheelers is proposed to be provided against the requirement of 313 cars + 391 two wheelers (according to local norms). Provision for charging for electrically operated vehicles (20%) is proposed.

xviii. Total landscape area proposed at site will be 558 sqm. 230 trees are proposed within the site of which 88 trees are existing and 142 trees will be planted. There is no existing tree at the site where the proposed new hospital building needs to be constructed. Therefore, no tree cutting/transplantation is proposed.

xix. The project is not located in Critically Polluted area.

xx. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.

xxi. Chembilode village is not included in the list of Villages in ESA of the Western Ghats as per Appendix 3 of the report of the High Level Working Group (HLWG) on Western Ghats.

xxii. Forest Clearance is not required.

xxiii. No court case is pending against the project.

xxiv. CRZ Clearance is not required.

xxv. Expected timeline for completion of the project - About 12 months.

xxvi. Investment/Cost of the project is ₹138 Crores.

xxvii. Employment potential – About 100 persons during construction phase and about 1,050 persons during operation phase.

xxviii. Benefits of the project – The project would provide better health infrastructure facilities & supporting infrastructure facilities to the people. Direct and indirect employment opportunities; The potential for employment and access to new services may draw people to the area around the project. There will be an increase in economic activity and employment for the local community, local skills development. Employment opportunities generation and revenue to the State.

5. The EAC (Infra-2) also noted that the project has obtained Certified Compliance Report (CCR) from Integrated Regional Office, MoEF&CC, Bangalore vide file no. EP/12.1/2018-19/05/KER/288 dated 17.01.2022 wherein the status of compliance of the project has been rated as satisfactory.

6. The EAC (Infra 2), based on information and clarifications provided by the project proponent and detailed discussions held on the issues, has recommended granting environment clearance to the project. The aforesaid recommendation of EAC (Infra-2) is subject to certain specific conditions, as stipulated during its 83th meeting held during 28th February and 02nd March, 2022.

7. Based on recommendations of EAC (Infra-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project for Proposed expansion of existing Hospital project with increase in built- up area from 23,421.68 sqm. to 30,370.28 sqm. at Chembilode Village & Panchayat, Kannur Taluk & District, Kerala by M/s Malabar Institute of Medical Sciences Ltd., under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the following specific and standard conditions:

A. Specific Conditions:

i. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 147 KLD during operational phase.

ii. As proposed, wastewater shall be treated in an onsite STP of total 200 KLD capacity. At least 146 KLD of treated water from the STP shall be recycled and re-used for flushing (104 KLD), for horticulture (1 KLD), for boiler (15 KLD), and for make-up water requirement for cooling towers attached with the HVAC System (26 KLD). There shall be no discharge of treated water outside the project premises, as committed.

iii. The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.

iv. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 558 sqm. As proposed, at least 230 trees shall be maintained within the site during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sqm., of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or

invasive species should not be used for landscaping.

v. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, RWH tank of total 118 KL capacity shall be provided for rain water harvesting after filtration.

vi. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through the Bio-Gas generation plant/bio-bin unit to be installed within the site. Inert waste shall be disposed off as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016. Bio-medical wastes shall be disposed as per Bio-Medical Waste (Management & Handling) Rules, 2016. The radiation safety guidelines of Atomic Energy Regulatory Board (AERB) Bhabha Atomic Research Centre (BARC) with regard to the management and disposal of radioactive waste shall be followed.

vii. 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.

viii. The PP shall provide electric charging points in parking areas for e-vehicles as committed.

ix. As committed, solar energy installation of 267.5kWp capacity to meet 10 % of the connected load shall be implemented.

x. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

B. Standard Conditions:

I. Statutory compliance:

i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning

authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.

iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.

iv. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.

vi. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.

vii. 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.

viii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

ix. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.

x. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

II. Air quality monitoring and preservation:

i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

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. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii. Wet jet shall be provided for grinding and stone cutting.

viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Management Rules 2016.

x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

xii. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation:

i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be

submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

viii. Use of water saving devices/fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xi. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

xiii. All recharge should be limited to shallow aquifer.

xiv. No ground water shall be used during construction phase of the project.

xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

xvii. Sewage shall be treated in the STP with tertiary treatment.

xviii. No sewage or untreated effluent water would be discharged through storm water drains.

xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP)

shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

IV. Noise monitoring and prevention:

i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.

ii. 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.

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.

V. Energy Conservation measures:

i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.

ii. Outdoor and common area lighting shall be LED.

iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

iv. Energy conservation measures like installation of CFLs/LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per

the state level/ local building bye-laws requirement, whichever is higher.

vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

ii. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

iv. Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.

v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

ix. 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.

x. 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.

VII. Green Cover:

i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.

iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
   a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
   b. Traffic calming measures.
   c. Proper design of entry and exit points.
   d. Parking norms as per local regulation.

ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii. 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.

IX. Human health issues:

i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
ii. For indoor air quality the ventilation provisions as per National Building Code of India.
iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
iv. 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.
v. Occupational health surveillance of the workers shall be done on a regular basis.
vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Miscellaneous:

i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
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 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.

vi. 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.

vii. 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

viii. 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.

ix. 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.

x. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

xi. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.

xii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).

xiii. 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.

xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xvi. 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.

xvii. 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.

xviii. 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.

8. The Environmental Clearance is being granted to M/s Malabar Institute of Medical Sciences Ltd., for Proposed expansion of existing Hospital project with increase in built- up area from 23,421.68 sqm. to 30,370.28 sqm. at Chembilode Village & Panchayat, Kannur Taluk & District, Kerala.

9. This issues with the approval of the Competent Authority.

(Dr. Dharmendra Kumar Gupta)
Director (S)

Copy to:

1. Principal Secretary, Government of Kerala, Department of Environment & Climate Change (DoECC), Devikripa, Pallimukku Pettah P.O., Thiruvananthapuram– 695024, Kerala
2. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office (Southern Zone), Ministry of Environment, Forest and Climate Change, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bengaluru – 560034, Karnataka
3. Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. Member Secretary, Kerala State Pollution Control Board, Head Office, Pattom. P. O., Thiruvananthapuram-695004, Kerala
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/Record File/Notice Board/MoEF&CC website.

(Dr. Dharmendra Kumar Gupta)
Director (S)

Signature Not Verified
Digitally signed by Dharmendra Gupta
Scientist F
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