

F. No. 10-54/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 100003

May 25th, 2021

To,

Shri BCH Negi, Director

M/s. Airports Authority of India Goa
Goa Airport, Dabolim, Vasco da Gama,
Mormugao, South Goa, Goa - 403801
Email: goairport18@gmail.com

Subject: Environmental Clearance for Expansion of Dabolim Airport, Goa in Respect of Extension of Existing Integrated Terminal Building & Existing Apron at Dabolim Village, South Goa District in Goa by M/s. Airports Authority of India Goa - Regarding

Sir,

This has reference to your Application/Proposal No. IA/GA/MIS/191999/2018; received on 05th April, 2021 through Parivesh Portal for Environmental Clearance (EC) for Expansion of Dabolim Airport, Goa in Respect of Extension of Existing Integrated Terminal Building & Existing Apron at Dabolim Village, South Goa District in Goa by M/s. Airports Authority of India Goa.

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 'A' of item 7(a) 'Airports' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires 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) in its 64th meeting held during 12-13 April, 2021.

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 Dabolim Village, South Goa District, Goa with coordinates 15°22'58.74"N latitude and 73°50'32.67" E longitude.
- ii. The proposal is for 'Expansion'.
- iii. The proposal was granted Terms of Reference (TOR) by MoEF&CC vide letter no. 10-54/2017-IA-III dated 10.05.2018. Further the TOR was amended for revision of area of terminal building and some minor changes vide letter of even no. dated 04.11.2019.
- iv. The proposed expansion is for extension of existing Integrated Terminal Building towards East by demolition of old terminal building, internal

modification of existing integrated terminal building and extension of existing Apron towards East to facilitate 3 no. code C Aircraft (AB-321/B739-900) parking. The existing Dabolim Airport is spread over an area of 6.2 ha of land which is under possession of Airports Authority of India (AAI) and expansion is planned within the existing land only. The proposed expansion includes expansion of existing terminal building by 18,300 sqm and the existing apron by 15,000 sqm.

- v. During the construction stage, water will be sourced primarily through tankers arranged by the contractors as per specifications. After expansion, the daily consumption of water during operation phase will be about 869 KLD of which 533.10 KLD will be fresh water requirement sourced from Public Works Department (PWD), Goa and 335.40 KLD will be recycled water requirement. The existing STP Based on MBBR technology has capacity of 300 KLD. The total waste water generation will be 576 KLD and the excess modular design of 20% will be kept as standardized. Capacity of the existing STP has been enhanced from 300 KLD to 600 KLD with MBBR technology considering the additional requirement based on increased number of passengers and also based on directions of Goa PCB as per their stipulations of CTO dated 30.07.2020.
- vi. 40 kg/day (@0.2 kg/person/day for 200 labours) of solid waste will be generated during construction phase and will be collected and disposed as per established laws and procedures. About 0.01 MT Construction and Demolition waste will be generated and efforts will be put to re-use the waste in the foundation and other road laying activities. The wet and dry solid waste is collected separately from the airport garbage bin area and both collection and disposal activity is handed over to assigned contractor M/S Mishra Trader's.
- vii. The present power requirement of the airport is 3.5 MVA which after expansion will be 6 MVA and sourced from Goa Electricity Department. For stand-by purpose the airport is having 4 nos. of DG sets in operation for power back up.
- viii. Multi-level car parking rooftop / terrace area has been proposed to accommodate solar panels.
- ix. Green belt development will be undertaken along the boundaries, away from the landing funnel and 45000 sqm of green area will be maintained. No tree felling is involved.
- x. It has been proposed that rainwater harvesting shall be done from roof top area of terminal building and the harvested rainwater shall be stored to be re-used in the airport.
- xi. All vehicles inside the airport will be parked in designated parking area only. Multi-level carpark is implemented in 4 floors with car parking space for 400 cars. Separate car parking around Admin Block for AAI/Airport staff & for operation of Cargo Movement which accommodates approx.75 cars & 10 Nos. Cargo Vehicles have been created. Development of PT-162 patch of Land to accommodate 65 Cars, 20 Coaches & 230 Two Wheelers is in progress.
- xii. Public hearing has been conducted by the Goa State Pollution Control Board at Community Centre, Airport Colony, Nr. NSD, Sanole Village, Dabolim Goa on 04/12/2020. Concerns were raised on issues such as privatisation of airport in future, incorrect procedure followed in conducting public hearing, deforestation involved and adverse effect on



residents within 4 km radius of proposed project. Regarding the queries, the PP assured the following: the airport will be under Airport Authority of India and won't be handed over to private operators; the public hearing was conducted according to the guidelines prescribed by the Ministry Environment Forests & Climate Change; there will be no tree felling due to the project; and there will be no adverse impact at a distance of 4-km from the airport. A written representation was also received from Mr. Savio J.F. Correia which has been adequately responded by Airport Authority of India.

- xiii. Baseline data for environmental attributes like ambient air, meteorology, water, hydrology, land use, soil, geology, noise, socio-economic, ecology and biodiversity data etc. was collected. The study was conducted during the pre-monsoon season, March to May, 2018.
- xiv. The project is not located in Critically Polluted area.
- xv. The project is not located within 10 km of eco-sensitive area. NBWL Clearance is not required.
- xvi. Forest Clearance is not required.
- xvii. No Court Case is pending against the project.
- xviii. Investment/Cost of the project: Total project cost for the proposed project is Rs. 255.69 Crores.
- xix. Employment potential – The direct employment during construction phase in proposed project will be 200 persons. During the project operation stage the existing staff of 1200 persons will be maintained.
- xx. Benefits of the project - The proposed Airport expansion will enhance the safety, security and environmental standards and passenger comfort at Airport and also will help in catering to forecast future air traffic and passenger growth and national civil aviation vision. Improvement in physical and social infrastructure and employment generation.

5. The EAC noted that the project proponent has obtained certified compliance report from MOEF&CC Integrated Regional Office, Bangalore vide File No. EP/12.1/2017-18/05/GOA/1451 dated 31.03.2021. As per the report based on site visit dated 30.03.2021, the status of compliance of the project is 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 64th meeting held during 12-13 April, 2021.

7. Based on recommendations of EAC (Infra-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project for 'Expansion of Dabolim Airport, Goa in Respect of Extension of Existing Integrated Terminal Building & Existing Apron at Dabolim Village, South Goa District in Goa' by M/s. Airports Authority of India Goa, 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. 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.
- ii. Construction site should be adequately barricaded before the construction begins.
- iii. Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- iv. Rainwater harvesting shall be done from roof top area of terminal building and the harvested rainwater shall be stored to be re-used in the airport as proposed. Rain water harvesting structures shall conform to CGWA designs. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
- v. A certificate from the competent authority/agency 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.
- vi. Fresh water requirement from local authority shall not exceed 533.10 KLD during operational phase. As committed, no groundwater abstraction shall be done during construction as well as operation phase of the project.
- vii. As proposed, waste water shall be treated in an onsite STP of total 600 KLD capacity. Atleast 335.40 KLD treated water from the STP shall be recycled and re-used for flushing, HVAC, gardening etc.
- viii. 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.
- ix. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 45000 sqm. Green belt development shall be undertaken along the boundaries, away from the landing funnel as proposed. The landscape planning should include plantation of native species.
- x. The PP shall also provide electric charging points in the parking areas for e-vehicles as committed.
- xi. PP should explore enhancing energy conservation up to at least 10% through use of solar energy.
- xii. 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 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.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- iv. 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.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vi. Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained.
- 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.

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 airport area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
- ii. 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.

- iii. Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet
- iv. The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- v. Excavated materials shall be handled and transported in a manner that they do not cause any problems of air pollution.
- vi. The soil/construction materials carried by the vehicle should be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.

III. Water quality monitoring and preservation:

- i. Run off from chemicals and other contaminants from aircraft maintenance and other areas within the airport shall be suitably contained and treated before disposal. A spillage and contaminant containment plan shall be drawn up and implemented to the satisfaction of the State Pollution Control Board.
- ii. Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.
- iii. The runoff from paved structures like Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.
- iv. Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area. Domestic and industrial waste water shall not be allowed to be discharged into storm water drains.
- v. Prior permission from competent authority shall be obtained for use of fresh water.
- vi. A certificate from the competent authority for discharging treated effluent/ drainage systems along with the final disposal point should be obtained.
- vii. A detailed drainage plan for rain water shall be drawn up and implemented.

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. During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.



V. Energy Conservation measures:

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

VI. Waste management:

- i. Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimized. Ensure that soil stockpiles are designed with no slope greater than 2:1 (horizontal/vertical).
- ii. The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.
- iii. Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen etc shall be reused/recycled or disposed off as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Management Rules, 2016.
- iv. 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.
- v. The project proponents shall implement a management plan duly approved by the State Pollution Control Board and obtain its permissions for the safe handling and disposal of:
 - a. Trash collected in flight and disposed at the airport including segregation, collection and disposed.
 - b. Toilet wastes and sewage collected from aircrafts and disposed at the Airport.
 - c. Wastes arising out of maintenance and workshops
 - d. Wastes arising out of eateries and shops situated inside the airport complex.
 - e. Hazardous and other wastes
- vi. The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out. Solid wastes shall be disposed in accordance to the Solid Waste Management Rules, 2016 as amended.
- 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.

VII. Green Belt:

- i. Green belt shall be developed in area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the Air Port.
- ii. Top soil shall be separately stored and used in the development of green belt.



VIII. Public hearing and Human health issues:

- i. Traffic congestion near the entry and exit points from the roads adjoining the airport shall be avoided. Parking should be fully internalized and no public space should be utilized.
- ii. Provision of Electro-mechanical doors for toilets meant for disabled passengers. Children nursing/feeding room to be located conveniently near arrival and departure gates.
- 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.

IX. 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 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. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. The criteria pollutant levels namely; PM₁₀, PM_{2.5}, SO₂, NO_x (ambient levels) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xi. 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.
- xii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xiii. 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.
- xiv. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xv. 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.
- xvi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xvii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xviii. 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.
- xix. 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/NGT and any other Court of Law relating to the subject matter.

xx. 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. Airports Authority of India Goa for 'Expansion of Dabolim Airport, Goa in Respect of Extension of Existing Integrated Terminal Building & Existing Apron at Dabolim Village, South Goa District in Goa'.

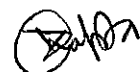
9. This issues with the approval of the Competent Authority.



(Dr. Dharmendra Kumar Gupta)
Director (S)

Copy to:

1. The Director, Department of Environment & Climate Change (DoE&CC), 1st Floor, Pandit Deendayal Upadhyay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez, Goa - 403 521
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F, Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Member Secretary, Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao - Bardez Goa - 403511
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)