EXECUTIVE SUMMARY

of

Environmental Impact Assessment for the Proposed Upgradation of Chhatrapati Shivaji International Airport at Asalfa, Kirol, Kolekalyan, Vile Parle (E), Sahar, Bapnala, Kondivita, Kurla, Mohili, Chakala, Brahamanwada, Marol, Mumbai, Maharashtra

Project Proponent



Mumbai International Airport Limited
Mumbai

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(QCI/NABET Accredited EIA Consultancy Organization NABL/ISO 17025 Certified Laboratory, Recognized by MoEF, New Delhi)

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1.0 INTRODUCTION

Chhatrapati Shivaji International Airport (CSIA) at Mumbai is the second busiest airport in India, serving as a gateway to international passengers and domestic passengers. In 2015-16, CSIA, Mumbai handled 41.6 million passengers with annual growth of 13.7% along with 7,05,250 tonnes of cargo and currently handles up to 48-50 air traffic movements in peak hour.

Mumbai continues to experience rapid growth in passenger volumes and shall realize significant growth in the coming years. Mumbai city is expected to have traffic demand of approximately 50 MPPA by 2020, and therefore it is essential that further up-gradation of the airport is planned and implemented to augment its current capacity to serve the air passenger demand of Mumbai, particularly in view of new airport at Navi Mumbai being operational post 2020.

In view of this, M/s. Mumbai International Airport Ltd (MIAL) now intends to take up implementation of critical aeronautical infrastructure in order to enhance airport's operational efficiency and capacity. The passenger handling capacity of CSIA (combined terminals and airfield capacity) is estimated to be 52 MPPA, post completion of the up-gradation works.

1.1 Location Details and Environmental Setting

- Chhatrapati Shivaji International Airport is a brownfield airport located in center of a land constrained city of Mumbai, the financial capital of India;
- CSIA is located at 19° 05' 27" North, 72° 52' 00" East, at an average field elevation of 8 m above sea level;
- CSIA is well connected by main arterial roads of Mumbai, like Western Expressway on the west, Andheri Ghatkopar Link Road (AGLR) on north, Kalina road on south and Andheri-Kurla road on east;
- Suburban rail connectivity is through Vile Parle railway station on the western suburban rail line close to domestic terminal at Santacruz;
- Sanjay Gandhi National Park (SGNP) is located at a distance of about 4.5 km from CSIA boundary; and
- Mithi River flows at the site periphery underneath the runway (09-27).

The study area map showing 10 km radius from the project boundary is given in **Figure-1**.



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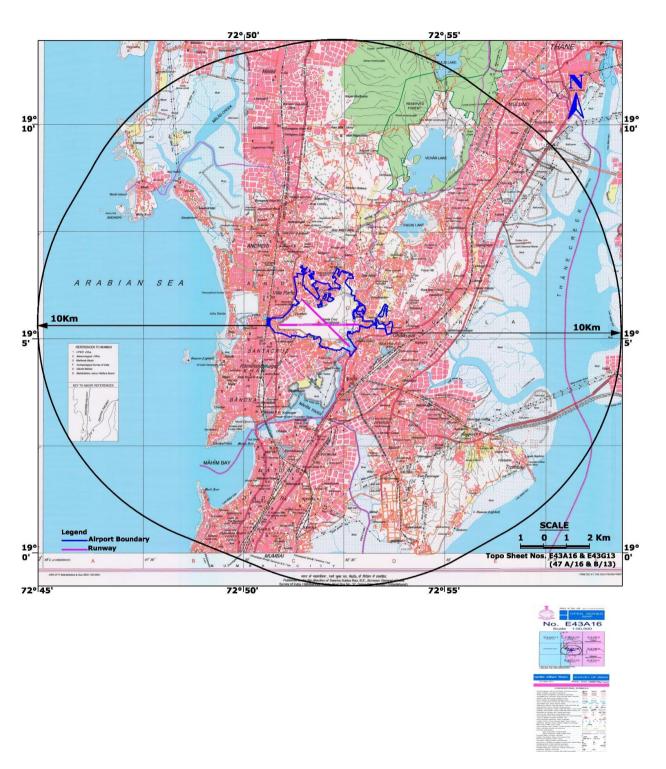


FIGURE-1
STUDY AREA MAP OF THE PROJECT (10 KM RADIUS)



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2.0 PROJECT DESCRIPTION

In view of continued rapid growth in passenger traffic (13.7% in 2015-16), CSIA's operational infrastructure needs to be further upgraded to serve the estimated demand of over 50 MPPA by 2020 to sustain economic growth of Mumbai city, the financial capital of India. Earlier in 2007, MIAL had started redevelopment and modernization of the airport after obtaining Environmental Clearance from MoEF&CC vide letter no. 10-5/2007-IA (III) dated 3rd April, 2007. MIAL has completed most of the projects/ works approved in the Environment Clearance of 2007. Some parts of the projects / works approved in 2007 need additional time for completion. Also few of these projects/ works which could not be initiated due to existing constraints, will have to be taken up in the next five to seven years.

Keeping the above in view as well as to enhance airport operational efficiency, MIAL intends to take up the up-gradation project at an estimated cost of Rs. 3423.55 crores over the next 4-5 years.

The up-gradation works are segregated into two categories:

- 1. Completion of balance works approved in EC of 2007 including:
- Completion of balance work of passenger terminals;
- Completion of balance work of cargo terminals;
- Completion of balance work of apron expansion;
- Completion of balance work of taxiway extension; and
- Completion of balance work of airport facilities.
- 2. New/Fresh Projects:
- Construction of Vehicle Underpass under Runway 14-32, connecting existing aircraft parking area/ aprons at Terminal T2 in Sahar and Terminal T1 in Santa Cruz;
- Construction of extension of taxiway M; and
- Construction of new ATC tower at Kalina.
- i) Vehicle Underpass under Runway 14-32: In order to ensure better utilization of available aircraft parking stands at terminal/apron, to increase operational efficiency, reduction in consumption of fuel, higher environmental sustainability, and enhanced safety of operations, MIAL is proposing to construct a vehicle underpass below Runway 14-32 to connect the aprons of Terminal T2 in Sahar and Domestic Terminal T1 in Santa Cruz, for expeditious transfer of passengers and baggage/ cargo between the two Terminals.
- **Construction of Taxiway M:** In order to reduce departure queuing times on Runway 27, which is the airport's main runway, MIAL is proposing to



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construct an access taxiway to runway 27 end. The project involves construction of extension to existing Taxiway M, with bridge over Mithi River. This project will increase runway capacity during departure peak times. In addition to this, Taxiway 'M' will improve aircraft circulation from/to Terminal T2 apron from the Runway 27.

Construction of New ATC Tower in Kalina: Relocation of existing ATC Tower at Santacruz may be required in future due to security reasons. Construction of new Air Traffic Control Tower is therefore proposed in Kalina, as this location is further from the main public and passenger access areas, and is more appropriate from security point of view. Also, this location provides unobstructed views of all runway ends and taxiways.

All projects are within airport site area and are required to enhance efficiency, safety and security of operations at CSIA. It may be noted that an incidental increase in airport's passenger handling capacity and completion of these projects are well within the resource demand as approved in the Environmental Clearance of 2007 and no additional demand for water, power, sewerage, etc. is envisaged for these projects.

Details of the proposed up-gradation project is given in **Table-1** and are shown in **Figure-2**.

2.1 Resources Requirement

• Land Requirement

The proposed up-gradation project will be undertaken within the existing airport site area. Hence, no additional land acquisition is involved. However, some of these projects shall need slum rehabilitation for a small part, i.e. 8.057Ha, of the 125Ha of slums located on airport land, which will be done in accordance with Slum Rehabilitation Policy of Govt. of Maharashtra for CSIA.

• Water Requirement

The ultimate stage CSIA water demand is estimated at a maximum of 15.763 MLD. Out of this, fresh water requirement is 8.00 MLD and recycled water requirement is 7.763 MLD. The said requirement is well within the earlier projected water requirement. Hence, no extra provision of fresh water from Municipal Corporation of Greater Mumbai (MCGM) is required.

Power Requirement

It is estimated that the total power requirement for the new projects is 18.39 MVA which is within the installed capacity of 140 MVA.



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TABLE-1 DETAILS OF PROPOSED UPGRADATION PROJECTS FOR CSIA

| | Proposed | | | | | |
|--------|---|--------------------------------|--|----------|---------------------------|-------------------|
| | | Proposed Area Approved in EC/C | | EC/ CTE | Construction Area applied | |
| S. No | Description | on Area | Phase-I | Phase-II | Total | for extension |
| | | (Sqm) | (Sqm) | (Sqm) | (Sqm) | of time (Sqm) |
| A | List of Projects (Approved in 2007) | <u> </u> | | | | |
| 1 | Terminal 2 | 00.000 | 0.10.000 | | | 00.000 |
| a b | Integrated T2 completion Terminal 2 MLCP | 28,000 | 2,10,000 1,50,000 | 0 | | 28,000 |
| | Sub-Total (1) | 28,000 | 3,60,000 | 0 | 3,60,000 | 28,000 |
| 2 | Cargo Terminals | 20,000 | 3,00,000 | | 3,00,000 | 20,000 |
| a | 1. Courier Terminal-1 in T1 | 1,651 | | | 1 | T |
| | 2. Courier Terminal-2 in T1 (Module 1, 2 & 3) | 5,250 | | | | |
| | 3. Courier Complex at Kalina | 20,030 | | | | |
| b | 1. MIAL Import (ASRS) Cargo | 2,921 | | | | |
| | 2. MIAL Heavy Import Cargo | 2,340 | | | | 1 |
| | 3. MIAL Light Import Cargo | 14,627 | 25,500 | 1,36,000 | 1,61,500 | 1,39,197 |
| | 4. MIAL Export Heavy & Bonded Cargo | 9,285 | 20,000 | 1,00,000 | 1,01,000 | 1,07,177 |
| | 5. MIAL Export Cargo | 6,873 | | | | |
| С | Air India International Cargo Terminal, Sahar | 13,892 | | | | |
| - | 2. Air India Domestic Cargo Terminal, Sahar | 2,609 | | | | |
| d e | GSD and Centralized Kitchen, Sahar Cabin Catering / Chef Air Facility | 47,431 12,288 | | | | |
| 6 | Sub-Total (2) | 1,39,197 | 25,500 | 1,36,000 | 1,61,500 | 1,39,197 |
| 3 | Aircraft Parking Extension | 1,07,177 | 23,300 | 1,00,000 | 1,01,500 | 1,07,177 |
| | Integrated T2 apron expansion | 71,750 | | | | |
| b | Aprons South of Main Runway | 75,000 | 57,860 | 3,27,998 | 3,85,858 | 1,46,750 |
| | Sub-Total (3) | 1,46,750 | 57,860 | 3,27,998 | 3,85,858 | 1,46,750 |
| 4 | Taxiways Development | | | | | |
| | Extension of Taxiways | 4,23,474 | 5,77,950 | 2,16,080 | 7,94,030 | 4,23,474 |
| 5 | Airport Facilities | | | | | |
| а | GSE Maintenance Facility with bridge access | 30,555 | 7,700 | 31,905 | 39,605 | 30,555 |
| | 1. Relocation of Indian Airlines/Air India Hangar-1 No, | 4.07/ | | | | |
| | South of Runway 09 2. Redevelopment of Air India aero facilities at South of | 4,976 | | | | |
| b | Runway 09 | 33,564 | | | | |
| 1 1 | 3. Aircraft Hangars South of Main Runway - 2 Nos | 3,060 | | | | |
| | Sub-Total (b) | 41,600 | 15,000 | 26,600 | 41,600 | 41,600 |
| | Redevelopment of residential colonies (NAD, Air | | | | | |
| | India Colony, Indian Airlines Colony) | 2,81,778 | | | | |
| | 2. MIAL Essential Staff Residential Quarters & Guest | | | | | |
| | House | 3,735 | | | | |
| С | 3. CISF Addl Residential Building in CISF Campus, Kalina | 1,468 | | | | |
| - | 4. CISF Residential Building | 460 | | | | |
| | 5. CISF Officers Quarters at Chakala | 943 | | | | |
| 1 F | Extension of existing CISF bldg / staff quarters, Sahar Sub-Total (c) | 1,432 2,84,153 | 204070 | | 2.04.070 | 204152 |
| d | Meteorological Farm | 8,088 | 2,96,070 4,000 | 0 | 2,96,070 4,000 | 2,84,153 8,088 |
| | Airport Management Building | 9,755 | 5,000 | 0 | 5,000 | 9,755 |
| | Airport Maintenance Compound | 4,063 | 13,450 | 0 | 13,450 | 4,063 |
| | Main Rescue and Fire Fighting Building | 6,197 | 5,500 | 0 | 5,500 | 6,197 |
| h | Common User Fuel Farm, Santacruz | 37,925 | 0 | 74,163 | 74,163 | 37,925 |
| | Other incidental construction | 4,845 | | | | |
| | 2. Radar building near CCR-I (2nd Radar) | 767 | | | | |
| | 3. ASR Building (3rd Radar) at Kranti Nagar | 767 | | | | |
| 1 ' | 4. Vile Parle Police Station & MIAL Office, Santacruz | 2,270 | | | | |
| - | 5. DoP Sorting Office, NAD Colony | 11,351 | 00.000 | | 00.000 | 00.000 |
| 1 | Sub-Total (i) | 20,000 | 20,000 | 0 | 20,000 | 20,000 |
| | Sub-Total (5) | 4,42,336 | | | 4,99,388 22,00,776 | 4,42,336 |
| В | TOTAL - A [1+2+3+4+5] List of New Projects (Submission for fresh approval) | 11,79,757 | | | 22,00,776 | 11,79,757 |
| | Vehicle underpass connecting existing apron T1 (Santa | | | | | |
| a | Cruz) and T2 (Sahar) | 29,820 | Submitted for Approval 29,820 31,000 3,778 | | 29.820 | |
| | Taxiway 'M' Extension with Bridge | 31,000 | | | | |
| | | | | | | |
| С | New ATC tower at Kalina TOTAL - B | 3,778 | | | | 3,778 |



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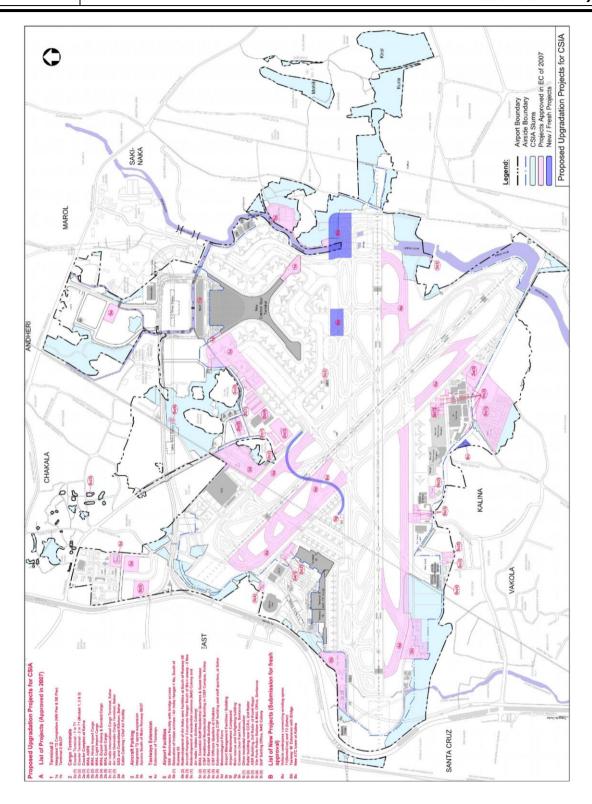


FIGURE-2
PROPOSED UPGRADATION PROJECTS, CSIA



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3.0 BASELINE ENVIRONMENTAL STATUS

The baseline environmental monitoring studies have been carried out within 10 km radius study area from CSIA airport boundary during March-May, 2016 period representing summer (pre monsoon) season. The study findings in brief are given below:

3.1 Soil Characteristics

The soil samples were tested at eight locations during pre-monsoon season covering various land uses. It has been observed that the pH of the soil in the study area ranged from 6.9 to 8.1. The electrical conductivity was observed to be in the range of 183 μ mhos/cm to 308 μ mhos/cm. The nitrogen values range between 16.0-52.1 kg/ha. The phosphorus values range between 7.9 to 93.3 kg/ha. The potassium values range between 235.1 – 309.5 kg/ha. The soils from the study area indicate medium fertility based on their NPK content.

3.2 Climate and Meteorology

The recorded temperature at site during study period ranges between 22.0°C to 41.5°C and relative humidity ranges in between 50 % to 72 %. Predominant winds from NW, WNW and W directions were observed during the study period.

3.3 Ambient Air Quality

To establish the baseline status of the ambient air quality in the study area, the air quality was monitored at eight locations during the pre monsoon season. The PM_{2.5} and PM₁₀ are observed to vary from 36.8 μ g/m³ to 88.6 μ g/m³ and 66.1 μ g/m³ to 115.4 μ g/m³ respectively. The SO₂ and NOx are observed to vary from 13.1 μ g/m³ to 25.4 μ g/m³ and 31.8 μ g/m³ to 41.2 μ g/m³ respectively.

The higher concentrations of particulate matter parameters in the study area can be attributed to the cumulative industrial, commercial and traffic activities in Mumbai.

3.4 Water Quality

The baseline water quality status in the region is established by collecting water samples from seven locations.

Surface Water Quality

The analysis results indicate that the pH values in the range of 7.0 to 8.2. The TDS was observed in the range of 240 mg/l to 580 mg/l. The chlorides and sulphates were found to be in the range of 46.1 to 127.6 mg/l and 8.6 to 18.8 mg/l respectively. The calcium was found to be in the range of 24.0 to 42.0 mg/l.



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Ground Water Quality

The analysis results indicate that the pH ranges in between 7.1 to 7.9. Total hardness was observed to be ranging from 246 to 480 mg/l. Chlorides were found to be in the range of 72.3 mg/l to 154.7 mg/l. Sulphates were found to be in the range of 18.3 mg/l to 72.6 mg/l. The Total Dissolved Solids (TDS) concentrations were found to be ranging in between 539 to 955 mg/l.

3.5 Noise Level Survey

The base line noise levels in the study area have been monitored. The day time noise level was observed to be in the range of 60.2 dB (A) to 79.3 dB (A). The night time noise level was observed to be in the range of 55.2 dB (A) to 75.5 dB (A).

Equivalent noise levels in the funnel area were in the range of 60.3 dB(A) to 72.6 dB(A) during day time and 56.0 dB(A) to 68.8 dB(A) during night time.

The relatively higher noise levels in the study area can be attributed to the mixed land use including industrial, commercial and traffic activities in Mumbai.

3.6 Ecological Studies

Sanjay Gandhi National Park (SGNP) located at about 4.5 km from CSIA airport boundary is a protected area and covers a notified area of 86.96 sq.km. The National Park harbours a wide variety of mammals, reptiles, birds and flora etc. The vegetation ranges from littoral forests to western subtropical hill forests, Mixed Deciduous forest and western subtropical Hill forests. There are no rare and endangered and vulnerable species of fishes in the study area. The presence of Schedule-I mammals are represented by Leopard, *Panthera pardus* fusca, which is largest predatory cat found in the Sanjay Gandhi National Park (SGNP), and amongst smaller cats, Schedule – I species are represented by the presence of Rusty Spotted Cat - *Felis rubinginosa*, along with the presence of Jungle cats listed in the Schedule-II of the Indian Wildlife (Protection), Act, 1972.

There is no presence of endangered botanical flora reported in the study area, which is listed in the Schedule VI of the Indian Wildlife (Protection) Act, 1972. Mangrove species are found in the creeks falling within the study area, along with halophyte species such as *Pandanus tectorius* –Kewda species.

3.7 Demography and Socio-Economic Profile

The information on socio-economic aspects of the study area has been compiled from secondary sources, which mainly include census data of 2011. The localities/blocks of Mumbai city covered in 10 km radius study area from CSIA airport boundary only are considered.

The total population of the study area is about 89,12,024. The sex ratio is 888. In the study area, about 7.49 % belongs to socially weaker sections. About 89.62 % of people are literates. Total work participation in the project area is 40.4 % and the non-workers constitute 60.98 %.



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4.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The potential environmental impacts due to the proposed up-gradation of airport operations have been assessed in detail. These include likely impact on air quality, noise, water quality, solid waste, ecology and socio economics, etc. Comprehensive mitigation measures have been incorporated in the environment management plan to ensure that the environmental quality is protected and enhanced. These have been summarised below in **Table-2**.

TABLE-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES

| Discipline | line Potential Mitigation Impacts/Issues Measures | | Remarks | | | |
|------------------------|--|--|---|--|--|--|
| Construction Phase | | | | | | |
| Air Quality | Increase in the levels of SO2, NOx, PM, CO and unburnt hydrocarbons | Proper upkeep and maintenance of vehicles, sprinkling of water on roads at construction site | The impact is likely to be for short duration and confined locally to the construction site itself. | | | |
| Water Quality | Contamination of Mithi river; Sewage generated from construction workers. | Screens shall be placed beneath the proposed bridge; Sewage shall be treated in the existing STP. | Construction wastes, as far as possible, shall be recycled, reused or recovered | | | |
| Noise Levels | Increase in noise level | Equipment shall be kept in good condition to keep the noise level within 90 dB (A). | Workers shall be provided necessary protective equipment e.g. ear plug, earmuffs | | | |
| Solid waste | Generation of waste | Proper care shall be taken in segregating wastes and maintaining areas in a clean pest free state | Shall be disposed as per the existing disposal method | | | |
| Terrestrial Ecology | No clearing of vegetation is involved | Existing greenbelt will be strengthened. | The area being an aviation zone, impact on terrestrial fauna will be negligible. | | | |
| Socio- economics | Migration of skilled and unskilled labour | Mostly local man power is proposed to be deployed. Hence no significant impact is envisaged. | No additional land will be acquired for the proposed upgradation project. | | | |
| Operation Phase | | | | | | |
| Air Quality | Increase in CO, HC and NOx levels in | | Continuous Ambient Air Quality Monitoring | | | |



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| Discipline | Potential Impacts/Issues | Mitigation Measures | Remarks |
|------------------------|---|--|--|
| | the ambient air quality. | suggested in the EIA report shall be employed for the air pollution control at the source level. | Station installed at airside to monitor the air quality. |
| Water Quality | Risk of contamination of surface water | Three State-of-art Sewage Treatment Plants have been set up and operational to treat wastewater generated. Existing STPs are adequate to handle the additional load. | The quality of treated sewage shall meet the prescribed limits given by regulatory authorities and shall be recycled for toilet flushing and in HVAC for cooling purposes. |
| Noise | Increase in noise levels | A noise management program is already developed and being implemented which will be followed for the up-gradation program. | |
| Solid Waste | Generation of waste | An organic waste composting facility has been established and is under operation to convert organic waste to compost. | Solid Waste shall be disposed off as per norms which is being practiced in the existing airport. |
| Terrestrial Ecology | No significant impact on flora and fauna is anticipated. | | |
| Socio- economics | Likely strain on resources and infrastructure facilities | Direct and indirect employment will increase | Positive social changes are anticipated which leads to regional development. |

5.0 ENVIRONMENT MANAGEMENT PLAN

Mumbai International Airport Pvt. Ltd (MIAL) being a responsible corporate citizen & an ISO 14001:2015, OHSAS 18001:2007, ISO 14064-1:2006 & ISO 50001:2011 certified organisation is committed to environmental conservation and protection. MIAL is constantly taking comprehensive measures to prevent the pollution and enhance the environmental performance of CSIA.



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CSIA has created an Environment Management Cell (EMC) to co-ordinate the activities concerned with environmental management and implementation of pollution control measures at the CSIA. Basically, this cell supervises the monitoring of environmental pollution levels viz. ambient air quality, water and waste water quality; noise level etc., either departmentally or by appointing external agencies wherever necessary. Monitoring is being done in line with regulatory requirements.

MIAL has a full-fledged three state-of-art STPs based on SBR technology followed by Ultra filtration and reverse osmosis for treating the wastewater generated at CSIA and has also installed continuous noise monitoring system and ambient air quality monitoring system at CSIA.

6.0 ENVIRONMENTAL MONITORING PROGRAM

Environmental Quality Monitoring

MIAL is regularly monitoring environmental quality parameters for the CSIA which include ambient air, noise, wastewater, drinking water etc as well as DG set emissions. The ambient air quality is monitored in accordance with National Ambient Air Quality Standards (NAAQS) notification, 2009 and Director General Civil Aviation (DGCA) Civil Aviation Requirements (CAR) on Climate Change Initiatives and Local Air Quality Monitoring in Civil Aviation, 2015. Noise levels are being monitored as per The Noise Pollution (Regulation and Control) Rules 2000 and DGCA CAR on Noise Management of Aircraft Operations at Airports, 2014. The monitored reports are submitted to various government authorities, namely Maharashtra Pollution Control Board (MPCB), Ministry of Environment, Forest and Climate Change (MoEF&CC), Airport Authority of India (AAI), Directorate General of Civil Aviation (DGCA) on regular basis.

Noise Monitoring System (NMS)

MIAL has installed a comprehensive Noise Monitoring System (NMS) at CSIA to monitor & measure the noise generated due to aircraft operations. Two Permanent Noise Monitoring Terminals (NMT) are installed outside of airport premises in landing & take-off path of the main runway. One mobile NMT is installed in the airport premises. The noise events are monitored 24x7 and the noise data is used to assess the noise pollution due to aircraft movement as well as the level of background noise in the surroundings.

Continuous Ambient Air Quality Monitoring Station

MIAL has installed continuous Ambient Air Quality Monitoring Station at airside. The ambient air quality is being monitored for PM_{10} , $PM_{2.5}$, SO_2 , NOx, HC, CO, CH_4 and O_3 .

The above environmental monitoring will be continued and will be further strengthened as per the functional requirement.



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7.0 AERODROME EMERGENCY PLAN

A comprehensive Aerodrome Emergency Plan (AEP) is already in place for CSIA airport. The AEP is comprehensively prepared for specifying role of various groups / organizations/ agencies and plan of disaster management during various types of emergencies / disasters like in-flight mass casualties, medical emergencies, aircraft accidents, various fires on ground, accidents involving dangerous goods, natural disaster management, unlawful act of seizure of aircraft etc. The AEP will be further upgraded in line with the requirements of airport up-gradation project.

8.0 PROJECT BENEFITS

CSIA has made major contribution in local and regional economic development (direct and indirect) and the same is detailed in 2014 report by National Council of Applied Economic Research (NCAER), New Delhi, titled 'Economic Impact Study of Chhatrapati Shivaji International Airport, Mumbai. The upgradation project will not only further improve operational efficiency and passenger convenience but will also contribute to the local and regional economic growth.

8.1 CSR Activities

To meet company's CSR objectives and channelize resources effectively, MIAL has created a comprehensive CSR Management Framework. This framework lays down processes for assessment and prioritization of CSR goals and objectives based on social, organizational and regulatory needs. A formal CSR policy was also finalized by Board of Directors in 2014. Main focus areas are:

- Training to promote nationally recognized sports;
- Providing emergency medical care, preventive health care, sanitization and safe drinking water:
- Promoting education to the under privileged children, supporting socially backward people and helping differently abled people;
- Protection of art and culture;
- Promoting gender equality and empowering women;
- Ensuring environmental sustainability, ecological balance, protection of flora and fauna and conservation of natural resources; and
- Slum area development.

9.0 CONCLUSIONS

Modernization and expansion of CSIA was earlier undertaken to increase airport capacity and provide required facilities and level of service to the passengers. The Modernization Program of CSIA, which was granted EC in 2007 included development of airside /airfield, terminals, cargo, landside and airport facilities.

The present CSIA up-gradation proposal is essential for enhancing CSIA's passenger handling capacity, efficiency to serve the passenger and cargo traffic of Mumbai region. In view of continued rapid growth in passenger traffic (13.7% in 2015-16) CSIA's operational infrastructure needs to be further upgraded to serve the estimated demand of over 50 MPPA by 2020 to ensure sustained economic growth of Mumbai city, the financial capital of India. This is particularly important



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as CSIA shall be required to serve entire demand of Mumbai till the commencement of operations at proposed Navi Mumbai International Airport.

As detailed in the EIA report, while the proposed airport up-gradation project would only have minor and marginal environmental impacts, these can be effectively mitigated by judicious implementation of the environment management plan as suggested.

The proposed project will provide direct employment to a large number of personnel, generate considerable revenue for the financial capital of India. This project will also generate significant ancillary and indirect employment in the region.

Thus, in view of considerable benefits from the project, the up-gradation project is most advantageous to the region as well as to the entire nation.