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Government of India
Ministry of Civil Aviation
Agreement Section

'B Block', Rajiv Gandhi Bhawan New Delhi, Dated 11<sup>th</sup> March, 2019

Subject:- White Paper on National Green Aviation Policy- regarding.

The Ministry of Civil Aviation, Government of India is committed to inclusive and sustainable growth of the civil aviation sector in the country and therefore is in the process of drafting a National Green Aviation Policy. In this regard a White Paper on National Green Aviation Policy has been developed and is hereby placed in the website of Ministry of Civil Aviation for wide consultation of the stakeholders. This vision document sets out a strategic framework to address the major environmental challenges of the aviation industry.

2. Comments/inputs on the enclosed White Paper may be sent by email to: <a href="mailto:soa.moca@nic.in">soa.moca@nic.in</a> by 11<sup>th</sup> April 2019. Reference of relevant para numbers of the document needs to be mentioned against the comments/inputs.

(Anup Pant)

Under Secretary to the Government of India Tel. No.- 24617547



## 2019

# White Paper on National Green Aviation Policy



Ministry of Civil Aviation

Government of India

2/19/2019



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## 1. Background

- 1.1 Aviation is an essential contributor to the health and well-being of the nation's economy. Commercial aviation has also evolved as the fastest, safest, and most far-reaching transportation mode globally. The world economy benefits from aviation greatly from the ability to move people and products all over the globe - quickly and safely.
- 1.2 The Indian air transport sector has shown very strong growth in recent years and expected to grow faster in coming years<sup>1</sup>. The Indian domestic aviation market is currently the fastest growing domestic markets globally (measured in terms of revenue passenger kilometers). The magnitude of the future potential growth in the Indian domestic market is evident from the fact that, the number of domestic journeys undertaken in 2017 represents just 7.3% of India's total population<sup>1</sup>.
- 1.3 The fundamental drivers of air passenger demand, viz. population, demographics and increasing incomes are favorable and supportive of on-going growth which is likely to continue in the near future. Over the next 20 years International Air traffic Association<sup>1</sup> (IATA) forecasts passenger growth of 6.1% per year on average – the number of annual air passenger journeys is forecasted to increase by more than 350 million over the period, moving to almost 520 million journeys in 2037.
- This strong growth outlook for air passenger demand<sup>1</sup> will see India overtake 1.4 Germany, Japan, Spain, and the UK within the next 10 years to become the world's third largest air passenger market. The positive outlook will see India move up from the current 7<sup>th</sup> largest air passenger market in the world to 3<sup>rd</sup> largest air passenger market (behind China and the United States) within the next decade.

<sup>&</sup>lt;sup>1</sup>https://www.iata.org/publications/economics/Reports/India-aviation-summit-Aug18.pdf

#### Sustainability & Environmental 2. **Concerns**

- Aviation is one of the fastest-growing sources of greenhouse gas emissions globally 2.1 and currently it contributes to 2% of overall anthropogenic Greenhouse Gas (GHG) Emission (Intergovernmental Panel on Climate Change (IPCC), 2004). The International Civil Aviation Organization's (ICAO) 2016 Environmental Report (On Board A Sustainable Future<sup>2</sup>)states that changes to the atmosphere, brought about by rising global temperatures caused by greenhouse gas emissions, will affect airplane's ability to fly, while rising sea levels will affect airports.
- 2.2 ICAO has warned that the aviation industry needs to prepare for severe disruptions as a result of climate change and that it needs to make full use of clean technology and policy tools in order to reduce its carbon footprint along with other environmental impacts. Exploring the use of bio jet fuels, energy efficient infrastructure, electric vehicle, green taxiing vehicle etc. proper regulatory frameworks and favorable market conditions will help in Aviation GHG reduction.
- 2.3 Aircraft noise near airports poses major health and environmental risk raising public concerns and is likely to impact future operations, as well as expansion and development of airports. The aviation stakeholders are consistently working together to reduce the noise impact through technology, process improvement and land use planning. However, the noise impact around airports may be significantly reduced by proper land use planning, which needs to be addressed collectively with government stakeholders.
- 2.4 The development and operation of an airport causes gaseous and particulate emissions from different sources including aircraft operations, ground support equipment, airport infrastructure and landside access traffic. Increased level of air pollution in certain states of India may result in operational constrains and reduced international travels and tourism; it may also lead to low visibility situations around the airport.

<sup>&</sup>lt;sup>2</sup> https://www.icao.int/environmental-protection/Documents/ICAO%20Environmental%20Report%202016.pdf

- 2.5 Effective land use planning around the airports in cooperation with Development Agencies, Authorities, Public Transport Departments, and Metro Rail Corporations etc. with a focus on enhanced connectivity to Airport and dedicated services to airport will enable smooth airport operations with reduced environmental footprints and will be beneficial for sustainable aviation.
- 2.6 Increased infrastructure development supported by growth of civil aviation in India has raised a growing concern on resource consumption by the aviation sector. There is a strong need for all the stakeholders to adopt resource conservation measures, green building concept, etc.
- 2.7 Waste Management by municipal bodies around the airports is also one of the concern areas for airport & aircraft operation. Improper waste management leads to bird attraction which is a threat for aircraft operation at airport. There is a strong need for all the concerned agencies to ensure proper waste management around the airports.
- 2.8 The lengthy and complex process of obtaining Environment clearance of airport projects (new and expansion) sets back the developmental activities which are required to cater to the needs of the rapidly growing aviation sector of the country. The Ministry along with Central and State Govt. bodies, need to work collaboratively for simplification of these processes to ensure timely completion of developmental activities with due care to environment and sustainability.
- 2.9 Recognizing the fact that Indian aviation sector would have exponential growth, addressing the environment and sustainability concerns are very important. To overcome the above stated concerns and address these issues, the need for a Green Civil Aviation Policy has been envisaged with a clear objective of achieving sustainable growth of the civil aviation.
- 2.10 MoCA along with the key aviation stakeholders conducted stakeholder meetings and formulated a task force and working groups to deliberate on the requirement of a National Green Civil Aviation Policy. The task force and working groups include representative from Ministry of Civil Aviation (MoCA), Ministry of Environment Forest & Climate change (MoEF&CC), Ministry of Petroleum & Natural Gas (MoP&NG), Directorate General of

Civil Aviation (DGCA), Airport Operators, Airlines, Air Navigation Services (ANS), Ground handling agencies and The Energy & Resources Institute (TERI). The inputs from the members of Task force, working groups and stakeholders were obtained through meetings, brainstorming sessions and questionnaires. Based on the responses received from various stakeholders the White Paper on National Green Civil Aviation Policy has been outlined.

## 3. National Green Civil Aviation Policy-Vision, Mission and Objectives

3.1 The Ministry of Civil Aviation, Government of India is committed to inclusive and sustainable growth of the civil aviation sector in the country while mitigating its negative impacts on environment at the same time. This White Paper sets out a strategic framework to address the major environmental challenges of the aviation industry. It comprehends the key environmental issues of the sector and emphasizes the Government's approach towards environment protection.

#### 3.2 Vision Statement

To enable, promote and strengthen all inclusive, green and sustainable growth of air transportation in India.

#### 3.3 Mission Statement

Provide safe and sustainable airtravel to various parts of India and the world by minimizing the adverse environmental impacts of civil aviation activities.

#### 3.4 Strategic Objectives

- 3.4.1 To support sustainable and inclusive growth of the Indian civil aviation sector and align it with ICAO's Vision and Mission.
- 3.4.2 To make Indian aviation one of the most resource efficient sectors without compromising environment and ecological protection while considering the need of water, energy & fuel conservation by implementing environment friendly measures etc.
- 3.4.3 To enable and promote development and maximum usage of solar and other renewable energy in the civil aviation ecosystem of India.

- 3.4.3 To ensure implementation of Environmental Management System (EMS) approach across aviation units to provide a foundation for enhancing the integration of environmental sustainability and regulatory requirements into the planning, decision-making, approvals and operations of Airports, Airlines, Air Navigation Services, Ground Support System etc.
- 3.4.4 Enhance the aviation systems from conventional to advanced environment friendly, resource efficient infrastructure/system with reliable and sustainable alternatives such as green building concept, etc.
- 3.4.5 To reduce GHG and other gaseous emissions in line with national and global frameworks by considering use of fuel efficient fleets, advanced air navigation system with flexible use of airspace, integrated A-CDMs, emission free ground support equipment, use renewable energy and other sustainable fuels like bio fuels etc.
- 3.4.6 Enhance competency on environmental sustainability for all aviation professionals with dedicated functions, roles and responsibilities in each individual aviation units such as Airports, Airlines, Air Navigation Services, Ground Support System etc.
- 3.4.7 Create a favorable regulatory regime for clearances of aviation projects to meet the anticipated growth of Indian Civil Aviation, with due care to environment sustainability.

#### 3.5 The Policy Areas

The policy is aimed to address all major aspects of environment in the aviation sector. The identified key policy areas include-

- **Environment Management System** Airport Master Planning
- Green Infrastructure Programme Noise Management
- Greenhouse Gas Emissions and Climate Change Local Air Quality
- Energy & Resource Conservation Solar and other Renewable Energy
- Waste Management Water Management
- Land, Soil, Habitat and Biodiversity Spills, Releases and other Incidents
- Competency & Skill Development Simplified Regulatory Regime

- 3.6 The Policy will be aligned with the relevant National and International frameworks like-
- ICAO's Vision, Mission and ambitious goals towards environment protection
- $\triangleright$ United Nations' Sustainable Development Goals (SDG) 2030
- India's Intended Nationally Determined Contributions (INDC) under UNFCCC- Paris Agreement
- Ministry of Civil Aviation's objective to achieve Sustainable Aviation as outlined in National Civil Aviation Policy 2016.

## 4. Environment Management System

- 4.1 Systematic environmental management is the key to understanding and managing adverse environmental impacts from the development and operation of aviation business function, and for ensuring support from the top to bottom of the airport organizational structure.
- 4.2 All stakeholders shall adopt a systematic approach to environmental management by means of an Environment Management System as per ISO 1400.
- 4.3 All environmental aspects shall be identified through an EMS and mitigation measures shall be adopted through an Environment Management Plan by each stakeholder.

## 5. Airport Master Planning

- 5.1 Airports while developing Airport Master Plan, shall take into consideration all policy areas, including environment impact assessment as per MoEF&CC guidelines.
- 5.2 Due consideration shall be given to the Airport Master Plan by all government agencies, regulatory bodies for all future approvals, once the plan is approved by MoCA. This will enable faster approval process.
- 5.3 Land use planning should be done at the Master Planning level by government agencies like Ministry of Housing and Urban Affairs (MoHUA) and other state agencies taking into consideration future growth and need of airport operation and environmental concerns once approved by MoCA; the plan shall be implemented accordingly.

## 6. Green Infrastructure Program

- 6.1 Green Infrastructures help in environmentally responsible and resource-efficient operations throughout a Building's Life-cycle, from Siting to Design, Construction, Operation, Maintenance, Renovation, and Demolition. It also benefits in efficient site management, flood controls, resource conservations, effective waste management, water efficiency & energy efficiency, renewable energy generation and indoor environment quality enhancements.
- 6.2 All aviation stakeholders should adopt to green infrastructure guidelines (such as IGBC- Indian Green Building Council, USGBC- U.S. Green Building Council, GRIHA-Green Rating for Integrated Habitat Assessment or any equivalent standards) while designing, constructing, operating, maintaining, renovating and during demolition of infrastructures. Adequate measure should be taken in order to ensure uninterrupted airport operation from natural calamities such as flooding and water logging issues with proper designing and development of storm water networks.
- 6.3 Government agencies shall focus on sustainable sites while selecting green field sites for new airport development considering present and future aviation requirements, requirements of existing land use, DGCA requirements, the need of future airport expansion, connectivity, aircraft noise etc.

## 7. Noise Management

- 7.1 All aviation stakeholders shall strive to minimize or mitigate the adverse effects of aircraft noise on communities by implementing effective noise management programs as per ICAO's balanced approach
- 7.2 All the stakeholders shall comply with the requirements of Airport Zone Noise Standard 2018 and any amendments thereafter.
- 7.3 All the requirements set out by DGCA shall be complied with for Aircraft noise management. Airlines shall strive to use of modern aircraft to promote less noisy and more fuel efficient operations.
- 7.4 Airlines will explore possibilities to avoid or minimize use of reverse thrust to reduce noise while landing.
- 7.5 Airports should optimize their infrastructure to promote a distributed use of runways (such as mixed mode operation) wherever possible.
- 7.6 Air traffic control should share radar data with concerned stakeholder including airports and airlines for monitoring the effectiveness of noise mitigation measures.

#### Greenhouse Gas Emissions and 8. **Climate Change**

- 8.1 All aviation stakeholders should assess, minimize and mitigate greenhouse gas emissions under their direct control, while guiding and influencing other aviation stakeholders at the airport to assess, minimize and mitigate theirs.
- 8.2 DGCA shall device a framework to advice all stakeholders to adopt measures to reduce emissions in all areas—aircraft, ground support, airport infrastructure and landside access traffic.
- 8.3 All the aviation stakeholders including Airlines shall adopt GHG management framework for their operation, including routes apart from routes covered under CORSIA and EU ETS scheme. Airports, ANS, Ground Service Agencies shall adopt GHG management frameworks as per ACI's Airport Carbon Accreditation & ISO 14064 and progressively move towards achieving carbon neutral status.
- 8.4 All aviation stakeholders including Airlines, Airports, Ground Support Service Agencies, Air Navigation Service Provider, etc. shall adopt best energy and fuel efficient solutions that are technically feasible, economically viable and environment friendly for reduced GHG emission and preventing climate change.
- 8.5 All the new green field airports should be provisioned with Bridge Mounted Equipment (BME), with Fixed Electrical Ground Power Units (FEGPU) and Pre Conditioned Air (PCA) supply provisions, with appropriate cost recovery mechanism. All existing airports should explore the possibilities of installing such facilities.
- 8.6 All airlines should use the BME facilities if the option of using such facility is available in Airports as a preferred choice for meeting on gate power and conditioned air requirements.
- 8.7 Airports and airlines will work collaboratively with DGCA to make green taxing feasible in India, with an objective of reducing ground emissions by airlines.

- 8.8 All airlines should operate current generation aircrafts with less noise and fuel efficiency. DGCA shall advice airlines to maintain their fleets with less noisy and more fuel efficient aircrafts.
- 8.9 Airlines shall use advanced software tools to analyze post flight data in order to make better strategic decisions regarding fuel burn patterns.
- 8.10 ANS/ATC shall use Continuous Descent Operation & Continuous Climb Operation and share information related to aircraft tracking and situational awareness at airspace and ground movement with the concerned Airport for fuel efficiency and noise reduction.
- 8.11 DGCA will work with other government agencies including MoPNG& private agencies for ensuring availability of bio jet fuels for aircraft use which is commercially viable. All aviation stakeholders shall also explore the possibilities of use of bio-fuel and other alternate fuels with lower emissions for ground vehicle application.

## 9. Local Air quality

- 9.1 DGCA should assess and understand emissions from all aviation related sources, their contribution to the local air quality and their effect on compliance with local air quality regulations.
- 9.2 DGCA will work with aviation stakeholders and other govt. authorities with framework to adopt measures to reduce emissions in all areas—aircraft, ground support, airport infrastructure and landside access traffic.
- 9.3 Airports shall adopt local air quality monitoring system and programs to monitoring the air quality around airport.

## 10. Energy & Resource Conservation

- All aviation stakeholders shall adopt resource efficiency measures including technology and operational improvements to reduce fuel consumption and improve electrical consumption efficiency.
- 10.2 All aviation stakeholders should minimize the energy demand of their infrastructure and operations, and move towards less polluting modes of energy and fuel use, including generating and using energy from renewable sources.
- 10.3 All aviation stakeholders shall adopt ISO 50001 systems for Energy Management for effective monitoring and conservation of energy.

## 11. Solar and other Renewable Energy

- 11.1 All aviation stakeholders shall focus on developing renewable energy within their facility. Use of offsite renewable energy shall also be explored, wherever possible.
- All new and upcoming airports shall make provision of onsite renewable energy 11.2 generation as a part of Airport Master Plan.

## 12. Waste Management

- 12.1 All aviation stakeholders shall promote the culture of avoiding solid waste generation and, where possible, extracting value from remaining waste with the ultimate goal of sending zero waste to landfills.
- 12.2 All aviation stakeholders should promote refuse, reduce, reuse and recycle concept for waste management and shall promote source segregation of waste including on board waste generated by Airlines.
- 12.3 All aviation stakeholders should avoid the utilization of single use plastics. All stakeholders shall explore eco-friendly alternatives to plastics such as use of compostable plastic.
- 12.4 All aviation stakeholders shall work closely with government agencies, local bodies for effective waste management around the airport to ensure reduced bird hazards and safe airport operation.

## 13. Water Management

- 13.1 All aviation stakeholders shall work to minimize the use of potable water, to process waste water (de-icing and sewage) in the most efficient way possible, reuse of treated water and to manage the quantity and quality of storm water run-off.
- 13.2 All stakeholders shall establish water efficient infrastructures, system & performance measures for water conservation
- 13.3 All stakeholders shall have Sewage Treatment Plants and Zero discharge shall be adopted to effective treated water reuse programs.
- 13.4 All stakeholders should adopt rain water harvesting programs wherever possible to enhance the water availability and sustainability in the region.
- 13.5 All stakeholders shall implement/manage water efficient landscaping systems, improved cooling tower water management performance for water conservation.
- 13.6 All stakeholders shall preventing soil and groundwater contamination with effective spill management and land contamination prevention programs.

## 14. Land, Soil, Habitat and Biodiversity

- 14.1 All stakeholders shall preserve and enhance the land, soil, water bodies and habitat on and near their properties to preserve the ecology and biodiversity, but without compromising the safety of aircraft operations.
- 14.2 All stakeholders shall adopt native and adaptive landscaping to protect biodiversity.
- 14.3 All airports shall adopt land and soil protection measures during construction and operation of airport infrastructure.

## 15. Spills, Releases and other Incidents

- 15.1 All stakeholders should evaluate environmental risks from their operation, and adopt prevention and intervention mechanisms to avoid, reduce or mitigate environmental damage to water, soil and air caused by incidents.
- 15.2 All aviation stakeholders shall adopt effective spill prevention measures to prevent soil pollution and water pollutions.

## 16. Competency & Skill Development

- 16.1 In order to handle environment related issues in a better and efficient manner, all aviation stakeholders including MoCA, DGCA, Airports & Airlines, ANS & Ground Support Service providers shall have an Environment Cell in their organization and dedicated senior environmental professionals and should have a reporting to Chief of the Company with dedicated roles and responsibilities to improve environmental performance of their organization
- 16.2 MoCA along with Aviation Stakeholders shall create a "Centre of Excellence for Green Aviation" and will work closely with research institutes, industry associations to ensure environment friendly progress and identify alternatives for non-environment friendly activities.
- 16.3 The Centre of Excellence shall focus on identifying environment friendly solutions, research, competency and skill developments, aviation programs and review of best practices for horizontal deployment across the industry in India.
- 16.4 "Centre of Excellence for Green Aviation" shall be formed and reviewed by government bodies, DGCA, Chief Executive of Airports, Airlines, ANS & Ground Support Service Providers with environment experts.

## 17. Simplified Regulatory Regime

17.1 MoCA will create a favorable regulatory regime for clearances of aviation projects such as new airports development and expansion with a special provision and timelines collaboratively with Central and State Govt. bodies, MoEF&CC and Pollution Control Boards & DGCA to speed up the developmental activities with due care environment sustainability to meet the anticipated growth of Indian Civil Aviation.

## 18. Power to Amend the Policy

- 18.1 Notwithstanding anything contained in the foregoing paras, the Ministry of Civil Aviation, with the approval of Competent Authority, may amend various aspects of this Policy from time to time depending upon the experience gained during implementation, availability of funds, public interest etc.
- 18.2 The existing sub-sectoral policies, if any, will automatically stand amended and modified to the extent of provisions contained in this National Green Civil Aviation Policy with effect from the date of approval of this policy.

#### Annexure 1

#### Stakeholder's inputs for National Green Civil Aviation Policy

Inputs on environmental frameworks, best practices, concerns and regulatory frameworks from the task force and other stakeholders were taken through questionnaires and discussion and are summarized below:

#### 1. Environmental initiatives implemented by various Aviation stakeholders-

- o Green Building developments, Green/Renewable energy generation and use by airports
- o Carbon Neutral Airports & Airport Carbon Accreditations from ACI & Adoption of GHG accounting, carbon offsetting & neutrality programs
- o Water management: Rain water harvesting, waste water treatment & reuse by **Airports**
- o Implementation of Noise management programs- ICAO's balanced approach and DGCA requirements
- Low emission technologies at Airports- Fixed Electrical Ground Power (FEGP) & Pre Conditioned Air (PCA)
- o Introduction of efficient Aircrafts by airlines
- o Adoption of fuel efficiency improvement, operational efficiency improvement measures adopted by Airlines.

#### 2. Social impacts created by Aviation stakeholders -

- Value addition on national income & Direct and indirect job opportunities
- o CSR benefits: Promoting education opportunities through Corporate Social Responsibility (CSR), Women empowerment programs, Health care and sanitation facilities through CSR
- o Improvement in the public transport system around airport, benefitting neighboring communities
- o Global connectivity, increased tourism and promotion of socio-cultural integration of people

#### 3. Environmental challenges faced by Aviation stakeholders-

- o Impact of climate change on airport & aircraft operation
- o Increased GHG emission& Air quality concerns, uncertainty with respect to biojet fuel
- o Aircraft noise and community concern
- Land use planning around airports
- Connectivity to airport in order to reduce the environmental footprints
- o Longer processing time for regulatory clearances and approvals for Airport projects, which are of national interest and brings enormous economic, social & environmental benefits.
- Waste Management and bird hazard concerns

#### 4. Improvement opportunities for ensuring Sustainable development:

Improvement Area Type			
✓ Adoption of Green building requirements by aviation stakeholders	Infrastructure		
✓ Use of Onsite/Offsite renewable energyby aviation stakeholders	minastructure		
✓ Installations of FEGP & PCA units and use of the equipments by airlines			
✓ Using electric vehicle by all aviation stakeholdersbased on technical &			
,			
operational feasibility, installation of Charging facilities by Airports			
✓ Mass transit connectivity to the city by Government authorities.			
✓ Availability of bio fuels& price competitiveness with conventional fuel	m 1 1		
✓ Adoption of green taxing or advance taxing to reduce the emission by	Technology		
Airlines in collaboration with Airports			
✓ Use of modern Aircraft fleets and benefiting noise and fuel efficiency.			
✓ Enhancement of weather predications and awareness system by govt. for			
aviation stakeholders' effective operations.			
✓ Utilization of software to analyze post flight data in order to make better			
strategic decisions regarding fuel burn patterns.			
✓ Advanced waste management and processing systems taking into account			
of aircraft safety.			
✓ Airport operator should have a free access for aircraft tracking and	Operational		
situational awareness at airspace and ground movement from Air Traffic			
Control (ATC)			
✓ Integrated Airport –Collaborative Decision Making (A-CDM) across			
India to enhance fuel efficiency			
✓ Optimization of flight routes and reduction in time in holding patterns			
around busy airports.			
✓ Active noise mitigation and use of continuous descent approaches			
✓ Sufficient airfield capacity at airports to accommodate demand and			
reduce holding time.			
✓ Airlines should follow time slots to avoid the delays, which will ease			
airspace and terminal congestions			
✓ Use of green chemicals for cleaning and spill management			
✓ Effective use of radars and Automatic Dependent Surveillance –			
Broadcast (ADS-B) for shorter vectors in terminal areas			
✓ Elimination of non-essential onboard weight so as to reduce fuel			
consumption			
✓ Avoidance of wastage of fuel through software to monitor the optimum			
level of fuel uplift required in flights	D I (		
✓ Establishment of Emission Mitigation Schemes/strategies	Regulatory		
✓ Implementation of ISO 14001:2015 and ISO 14064:2006 to airline			
operators, ground handling agencies and MaintenanceRepair &Overhaul			
(MRO) organizations			
✓ Enabling passengers to track and offset their carbon footprints			
✓ Land use zone planning for high noise areas are free from inhabitation			
✓ Route Navigation Facility Charges (RNFC), Terminal Navigation &			
Landing Charges (TNLC) and Airport charges rather than being fixed			
should be linked to the operational availability and state of installed			
infrastructure to promote efficient flights.			
✓ Government should develop a program with Air force for the operation of			
smaller aircrafts to avoid delays, congestion and capacity constrains at			
major airports and allows civilian use of military airspace.			

- ✓ Optimization of Flexible Use of Airspace (FUA) in consultation with Ministry of Defense
- ✓ Use of Fixed Electric Ground Power (FEGP) and Pre conditioned Air
- ✓ Airport Carbon Accreditation Program for all airports in India
- ✓ Green infrastructure guidelines must for all new terminal buildings
- ✓ Aviation specific environmental standards: As many of the existing standards are general in nature and does not cater to specific aviation requirements. Aviation specific environment standards are needed to achieve a balance between growth and development in aviation on the one hand and proper management of the environmental aspects of aviation on the other.