

## REVIEW OF THE INDIAN CIVIL AVIATION INFRASTRUCTUREA

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**Abstract :**India's aviation industry has been witnessing a boom due to the exponential growth in the domestic as well as the international passenger as well as cargo movement. India's international status as IT and manufacturing hub has further boosted this growth. Aviation industry is a critical part of India's infrastructure and has contributed substantially towards the growth of various manufacturing and service industries. This paper therefore reviews the existing civil aviation infrastructure and also highlights various infrastructural bottlenecks affecting the growth of this industry. The paper has made various recommendations, which could help in overcoming various infrastructural bottlenecks

**Keywords:** Review , Civil Aviation , Infrastructure, Manufacturing

### INTRODUCTION

The civil aviation industry in India has witnessed a sea change since its early beginnings in the 1950s to the present day era of its privatization. This industry was thrown open to private airlines since early 1990s. Prior to that, air travel was the monopoly of rich people, however due to the intense price competition amongst airlines, the air fares have dropped significantly. This has made air travel affordable even for the common man.

Aviation industry is a critical part of India's infrastructure and has contributed substantially towards growth of various allied industries including trade & tourism, hotel, steel, cement, construction and Information Technology. After the privatization of the aviation sector, this industry has changed remarkably in terms of the Government policies, quality of customer service, competition, airport infrastructure, employment opportunities and profitability.

### Airport Infrastructure

Civil aviation in India has been growing at a rapid rate in the post-privatization era and is playing a vital role in providing connectivity to different parts of the country. However, the number of passengers carried by domestic airlines per annum and the aircraft movement (number of landings and take-offs per day) in the post-privatization era has created strain on the aviation infrastructure. The over-stretched infrastructure results in traffic congestions and delays in landings and take-offs at majority of the airports. Let us review various infrastructural bottlenecks.

**The major constraints of the Aviation Infrastructure in India are:**

#### a) Inadequacy of Basic Facilities at the Airport Terminals

There is inadequacy of basic amenities such as a) clean toilets b) spacious lounges c) Retail shops d) restaurants, e) car parking facilities at the airport terminals g) shortage of baggage screening machines and check-in counters. This causes lot of inconvenience to passengers.

### **b) Shortage of Landing and Parking Slots and Runways**

Due to the shortage of landing and parking slots as well as runways at the major airports in India, there is tremendous congestion of air traffic both in the sky and on the ground at peak hours. It leads to a) higher fuel consumption due to long holding times b) lowers the utilization of aircraft c) delays landings and take-offs. All these constraints adversely affect the on-time performance and profitability of airlines.

### **c) Usage of Outdated Technology by Air Traffic Control**

The VHF equipment is used for a two way communication between the Air Traffic Controllers (ATCs) and pilots. The pilot has to follow the instructions of ATC to the minutest possible detail. A slight misunderstanding between the two can sometimes result in disastrous consequences. ATC at each airport requires a clear and unambiguous communication system. Because of the outdated VHF systems, there are multiple instances of cross communication requiring repeat instructions. Many a times a VHF system jams and leads to delays and mishap. Sometimes, instructions meant for one airline are picked up by another airline.

### **d) Inefficient Ground Handling**

In order to address security concerns, a new policy on ground handling services announced by AAI would allow only selected agencies to undertake passenger check-in, baggage screening, and security check, boarding and refueling. However, the move has been opposed by private airlines as they fear that it would result in a) Retrenchment of thousands of employees providing ground handling services to different airlines b) Loss of investments made by airlines in ground handling equipments and c) Fear of increase in the ground handling cost. Also, private airlines would prefer their own staff to interface with customers at different points till they board the aircraft. Implementation of the new ground handling policy in future has become uncertain due to the opposition from private airlines.

### **e) Absence of Low Cost Airports / Terminals**

The biggest factor that helps LCCs in the West is that they operate from secondary (low cost) airports, often located in the outskirts of the cities. This allows them to pay lower parking, landing, navigation and other airport charges. India does not have low cost airports and neither does it offer low-cost terminals. The high airport charges increase the operating costs of LCCs and affect their profitability.

### **f) Shortage of Skilled Professionals**

During the boom period, domestic airlines increased their fleet size as well as the number of flights on different routes. With the increasing aircraft movement, the demand for pilots also increased; however the training institutes in India could not groom sufficient number of pilots to meet the demand. The shortage of pilots in the local market forced airlines to hire foreign pilots with exorbitant salaries and hefty allowances, paid in foreign currency. High salary bills increase the operating costs and adversely affect the profitability of airlines. The Directorate General of Civil Aviation (DGCA) and Air Traffic Control (ATC), which handle key functions related to the safety of airline operations, could not recruit the required number of skilled professionals and so they are facing acute manpower shortage. The shortage of manpower at DGCA and ATC can affect the safety of airline operations.

For airlines to make profit, they need optimum number of qualified pilots and engineers. Also, the aircraft have to fly a minimum of 12 to 14 hours a day, to be profitable. The rules permit a pilot to fly only certain number of hours; however, DGCA has been providing waivers on the limit due to the shortage of pilots. Safety studies worldwide have proved that more than 70 per cent of accidents happen due to fatigued pilots. So, it is a catch-22 situation. If the number of pilots per aircraft is increased, it affects profitability of airlines. On the other hand, if 'rest-rules' are violated and pilots are asked to work extra hours, it increases the probability of air accidents. So, in order to manage this rope walk, each airline needs to decide the optimum staff per aircraft. The burst in the number of airlines and the resultant number of aircraft in the sky has put a heavy burden on the Air Traffic Controllers (ATCs). The shortage of skilled controllers is a known fact and the training and induction of qualified personnel is too slow to keep pace with the growth.

Several existing schools in India are practically nonfunctional due to the absence of a chief flying instructor. The Ministry of Civil Aviation is not paying enough attention to the basic requirement of creating facilities for training institutes. Potential pilots have to complete their training abroad. This is a time

consuming and expensive process

### **Role of the Government in addressing the infrastructural bottlenecks**

#### **The Public Private Partnership (PPP) model**

The Ministry of Civil Aviation is aware about the infrastructure bottlenecks; however it could not upgrade the airport infrastructure for a long time due to dearth of funds. To address this issue, the Government invited private players to invest their funds in Airport development. The Government came up with the PPP model for upgrading the existing airports and constructing Greenfield airports.

The PPP model combines the strengths and resources of private and public sector. The Government aims to transform major airports of India into world class facilities using this model. People in Tier-II and Tier-III cities possess purchasing power; however due to the non-availability of the air connectivity from such towns to metros, they are forced to use either road or railway transport.

To resolve this issue, the Airport Authority of India (AAI) is planning to develop airports in non-metro cities, by setting an appropriate aviation infrastructure. The Government has established a regulatory body called 'Airport Economic Regulatory Authority' (AERA) in 2008 to achieve following objectives:

a) To create a level playing field b) to foster healthy competition among all airports c) to encourage investment in airport facilities d) to regulate tariffs of aeronautical services e) to protect reasonable interest of users and f) to ensure efficient, economic and viable airports operations.

#### **RECOMMENDATIONS:**

- To address the current problem of shortage of landing and parking slots at the major airports, the airport developers and the Government should make provision for enough parking and landing slots in the upgraded airports.
- Usage of equipments using advanced technology for ensuring effective communication between pilots and ATC
- It is extremely important that DGCA validates the licenses of foreign pilots.
- Airport charges (for landing, parking and ground handling) at all the airports need to be rationalized to the level of international standards.
- The airport authorities should generate different streams of revenue through non-aeronautical sources
- As trucks are far more efficient than the tractor and trolley system for baggage handling, its use is recommended.
- AAI needs to build low cost airports and a clear land acquisition policy for setting up new airports.
- The Government of India should create suitable atmosphere to attract for Maintenance, Repair, and Overhaul (MRO) companies from international markets to set up their business in India.
- Need to provide inexpensive public transport for improving the city connectivity to the Greenfield airports.
- Airports should be developed as a multi model transport hub by integrating airports with other transport modes. The airport authorities should levy concessional airport charges on airlines to encourage them to shift their operations to non-peak hours.
- Need for twin airports in metro cities to reduce the congestion at the existing airports by segregating domestic and international traffic.
- Need for AAI to strengthen the cadre at ATC and setting up of credible in-house R&D for proper incorporation of new technologies and to reduce its dependence on external equipment suppliers.
- To remain competitive in the global market, Indian airports should be equipped with modern world class facilities such as central air-conditioning, passenger boarding bridges with Visual Docking Guidance System, escalators, CCTV etc.
- CIVIL Aviation policy should encourage by rewarding air pollution reduction methods, forest or green belt cultivation initiatives.
- Last but not the least, airports should be granted status as Infrastructure Industry. Airport infrastructure should be made more investor friendly.

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