

Available online at www.sciencedirect.com



Transportation Research **Procedia** www.elsevier.com/locate/procedia

Transportation Research Procedia 17 (2016) 90 - 97

11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, 10-12 December 2014, Mumbai, India

Rail Based Public Transport Facility To Large Indian Airports

D Srinivasa Reddy ^a*, Dr. K V Ganesh Babu ^b, Dr. M R Tagore^c

^{a,b} Gujarat International Finance Tec - City Co. Ltd, Zonal Facility Centre, Block-12, GIFT CITY, Gandhinagar-382355, India. ^c Associate Director, Systra MVA Consulting (India) Private Limited, CBD Belapur, Navi Mumbai, 400614, India

Abstract

The growth of Indian aviation sector in the past one decade is quite remarkable and between 2000 & 2010 air operations have expanded by 160%, in terms of domestic passenger volume India now ranks 4th after US, China and Japan. Indian aviation is set for transformational growth, Center for Asia Pacific Aviation (CAPA) projections indicate that airport passenger traffic will grow from 143 million in 2010/11 to 452 million by 2020/21. To meet this ever growing demand and to provide world class infrastructure to its users, Government of India (GOI) decided to develop airport infrastructure on a Public Private Partnership (PPP) mode and has taken a number of initiatives to open the sector for private participation in modernizing existing airports as well as setting up new greenfield airports. However present airport infrastructure facility in the same spirit as it was considered elsewhere in the world. In this paper, to understand the traffic and travel issues of the airport users and to appreciate the importance of rail based public transport access to airports, the case studies of existing Delhi Airport Metro Express (DAME) of Delhi airport, proposed metro link to Mumbai airport and proposed high speed rail link of Bengaluru are presented in detail in this paper.

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the Department of Civil Engineering, Indian Institute of Technology Bombay

Keywords: Airports; rail based public transport; high speed rail link; travel time; airport infrastructure; metro connectivity;

* Corresponding author. Tel.: +91 79 3001 8437; fax: +91 79 3001 8321. *E-mail address:* nivas.zeal@gmail.com

1. Introduction

As India crosses the threshold of becoming a global economic power, capital flows and corresponding business and leisure travel will also pass through the conduits of air traffic routing. At the same time, rising affluence and globalizing domestic firms are increasing outbound traffic from within India. This rising demand for international travel from within domestic borders, combined with an increase in international traffic coming to India, is part of a continuing trend of rising air travel demand. Indian aviation sector has witnessed a remarkable growth story in the last decade with robust growth in passenger and cargo traffic, huge jump in the number of aircrafts operating in the country, an impressive increase in the non scheduled operators, surge of investment in the airport infrastructure, rapid rise in the number of operational airports, modernization and augmentation of capacities at various metro and non-metro airports and much more. Rapidly expanding air transport network and opening up of the airport infrastructure to private sector participation have fuelled the growth of the air traffic in the country. India is likely to be the fastest growing aviation market in the world in the next 20 years.

Between 2000 and 2010 air operations in India have expanded by 160% and the same is expected to grow at a rate of 9-10% annually, in terms of domestic passenger volume India now ranks 4th after US, China and Japan. The total number of aircrafts in the country too has shown a rapid rise from 225 in 2000 to 735 in 2010. The number of operational airports has increased from 50 in 2000 to 82 in 2010. The passenger handling capacity has increased from 66 million to 235 million during the same period. To meet this demand, airports throughout India have committed to expand their share of Asia-wide and global air network, bringing more international travelers through their terminals.

2. Indian airports and passenger growth

In India at present there are 125 airports which include 11 International Airports, 08 Customs Airports, 81 Domestic Airports and 25 Civil Enclaves at Defense Airfields. The major airports are Delhi- Indira Gandhi International Airport, Mumbai- Chhatrapati Shivaji International Airport, Chennai-Chennai International Airport, Bengaluru - Kempegowda International Airport, Kolkata- Netaji Subhash Chandra Bose International Airport and Hyderabad- Rajiv Gandhi International Airport. To appreciate the importance of these six airports in the context of airport passenger handling, overall India airport passenger statistics during financial year 2013-14 are analyzed and presented in Table 1. More than 67% of total India airport passengers are handled by above mentioned six airports. Delhi and Mumbai airports tops busiest airports list, handling together close to 50% of total Indian international passengers and overall approximately 41% of total airport passengers.

SI. No	Airport	International Passengers	Domestic Passengers	Total Passengers
1	Delhi	12.68	24.20	36.88
2	Mumbai	10.34	21.88	32.22
3	Chennai	4.54	8.36	12.90
4	Bengaluru	2.63	10.23	12.87
5	Kolkata	1.77	8.34	10.10
6	Hyderabad	2.44	6.21	8.65
7	Total of above six	34.40	79.21	113.62
8	Overall India	46.62	122.41	169.03

Table 1: Summary of Airport passenger Statistics during 2013-14

Source: http://www.aai.aero/traffic_news

Center for Asia Pacific Aviation (CAPA) projections indicate that airport passenger traffic will grow from 143 million in 2010/11 to 452 million by 2020/21. These growth projections are staggering, but they are not without

Download English Version:

https://daneshyari.com/en/article/5125560

Download Persian Version:

https://daneshyari.com/article/5125560

Daneshyari.com