

The Infrastructure Challenge

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Global Scenario

- ICAO Forecasts (2005-25)
 - Passengers Traffic Growth : 4.6% p.a.
 - International Traffic : 5.3% p.a.
 - Domestic Traffic : 3.4% p.a.
 - Air Freight Growth : 6.6% p.a.
 - International : 6.9% p.a.
 - Domestic : 4.5% p.a.
 - Aircraft Movement (Departures): 3.6% p.a.
 - Asia Pacific and Middle East to witness highest growth: passenger traffic @ 5.8% p.a., regional share of 32.5%.

Global Scenario

Contd.

- Industry estimates suggest
 - Air travel grew @4.8% p.a. over last 20 years
 - Passenger traffic will grow @5% p.a. and air freight @ 5.8% p.a. over next 20 years.
 - Traffic is shifting East
 - India a major emerging market – growth @ 10% p.a.
 - Asia to lead world traffic by 2026
 - Largest demand of aircraft expected from Asia Pacific
- IATA
 - Short term outlook bleak
 - Fall in growth due to high fuel prices
 - Forecasts – 2009
 - Passenger Traffic growth 3.2% p.a.
 - Air Freight Growth – 1.8% p.a.

Key Issues in Global Scenario

- Capacity of airports and air-navigation services
 - Capacity addition to be commensurate with growing needs
 - Funding
- Safety of Operations both in air and ground
- Quality of Air Services
- Fool proof Aviation Security
- Potential shortage of skilled manpower

Key Issues in Global Scenario

Contd.

- Pressures on airline industry
 - Alliances, new airlines business models (LCC), mergers, acquisitions, etc.
 - High fuel prices
 - Investment in new aircraft/ technology
 - Trade barriers; bilateral process
- Transparent economic regulation and user interface
 - Transparent tariff setting
 - Consultation with users

Key Issues in Global Scenario

Contd.

- Aviation Environment and sustainable air transport
 - Aircraft noise
 - Impact of Night Curfew on destination airports
 - Local Air Quality at airports
 - Green House Gas (GHG) emissions
 - Aviation contributes about 3% of GHG emissions
 - Challenge is to restrict / manage emissions with growth in aviation.

Indian Aviation Scenario

- Healthy and stable macro-economic indicators.
 - GDP growth +9% p.a.
- Growing middle class of over 300 million.
- Liberalized policy regime initiated since 2004 – the main driver of growth.
- Currently 12 domestic airlines (against 1 in 1993), with a fleet size of 310, 480 aircraft on order upto 2012.
- Passenger traffic doubled over the past five years.

Challenges – Capacity Constraints at Airports

- Existing Infrastructure -
449 airports/airstrips
 - 133 Airports managed by Airports Authority of India
 - 5 Airports (Delhi, Mumbai, Hyderabad, Bangalore and Cochin) accounting for about 60 % traffic being operated in PPP.
- Strategy for Infrastructure Development -
 - Public Sector to continue and expand.
 - Reliance on PPPs for additionality & improved efficiency.
 - Promote independent private investment whenever feasible.

Challenges – Capacity Constraints at Airports

Contd.

- Initiatives taken to meet the challenge
 - Streamline policy framework
 - New policy to facilitate setting up of Greenfield airports (2008)
 - Transparent, upfront, time bound approval procedure.
 - Promote multi-airport systems in metros, low-cost airports.
 - New policy to provide ground handling services of world class standards in a competitive environment (2007)

Challenges – Capacity Constraints at Airports

Contd.

- Initiatives taken to meet the challenge
 - Promote private participation
 - Private participation enabled through legislative amendments (2004)
 - 100% FDI permitted in Greenfield airports (2005).
 - Upgrade existing infrastructure.
 - Set up new airports

Challenges – Capacity Constraints – Air Navigation Services

Contd.

India manages Air Space of 2.8 million nautical square miles including 1.75 million nautical square miles of oceanic air space.

- Upgradation of CNS/ATM Infrastructure
 - Medium Term Measures:
 - Central Air Traffic Flow Management System
 - Fully Integrated ATM Automation
 - Networking of Radars, ATM Facilities

Challenges – Capacity Constraints – Air Navigation Services

Contd.

- Long Term Measures:
 - Corporatization of ANS as a separate Government entity to efficiently manage future CNS/ATM services
 - Future Indian Air Navigation Master Plan
 - Communication
 - Navigation
 - Indian SBAS, GAGAN to be operational by 2011.
 - Surveillance
- India willing to cooperate with Next-Gen, SESAR and other such international initiatives.

Challenges – Safety and Security

Contd.

- Aviation Safety
 - Objective to make flying the safest form of transport.
 - Monitoring of
 - standards for airport design and Air Navigation Services
 - SOPs
 - Safety Management Systems
- Aviation Security
 - Compliance with ICAO requirements ensured
 - Additional measures in line with national security perspective.
 - Balance between security requirements and passenger facilitation
 - Passenger clearance in 45 minutes.

Key Issues – Economic Regulation

- Transparent Regulation and User Interface
 - Autonomous Economic Regulator
 - Airports Economic Regulatory Authority (AERA) to be set up shortly.
 - AERA to set tariff for Aeronautical Services and monitor set performance standards.
 - User Interface
 - AERA bound to consult all stake holders
 - Appellate Tribunal to adjudicate on disputes between Airport Operator and users.

Key Issues – Aviation Environment and Sustainable Air Transport

- India, an active participant, in ICAO's efforts to address environmental issues
 - Participation in the Working Groups of CAEP and GIACC
- Noise and Air Quality at Indian airports
 - Negative impact of Night Curfew
- Improvement of operational efficiency at Indian airports
- GHG emissions
 - India committed to ensure that its per capita GHG emissions will never exceed per capita GHG emissions of developed countries.
 - Solution to be found in global framework under ICAO leadership rather than at regional levels.

Indian Aviation 2020

- Passenger Traffic 150-170 million
(55 million)
 - Air Freight 9 million MT
(1.5 million MT)
 - 100 airports of international standards
 - Commercial fleet of 1000 aircraft
(310 aircraft)
 - Investments
 - Airports and ANS US \$ 20 billion
 - Airlines US \$ 80 billion
- (current numbers)

Thank You