



AIRPORTS

April 2010

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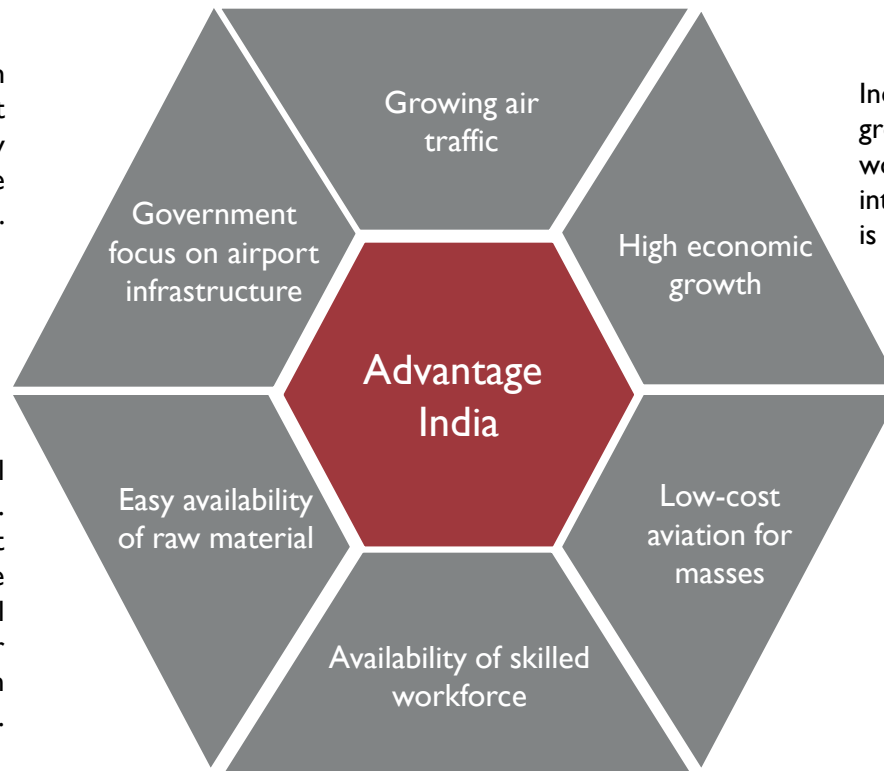
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Advantage India

Air traffic in the country has grown substantially over the past few years with the gradual liberalisation of air services and introduction of low-cost airlines.

The government is focussing on developing airport infrastructure in the country and is promoting private participation and FDI.

India is one of the fastest-growing economies in the world, and its share in international trade and tourism is increasing gradually .



Raw material such as cement, steel and iron are available in abundance. India is the second-largest producer of cement (2008–09), the fifth-largest producer of steel (2008–09) and the largest producer of direct reduced iron (2008–09) in the world.

Rising disposable income, together with the introduction of low-cost airlines, is making air travel affordable for a large section of the population. This is creating a demand for the development of airports across the country.

India offers a cost-competitive workforce for the development of airport infrastructure.

Sources: "Performance of Select Industries," Department of Industrial Policy and Promotion website, http://dipp.gov.in/industry/content_industries/index.htm /, accessed 25 January 2010; Ministry of Steel 2008-09 annual reports

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Airports – overview ... (1/2)

Presently, India has 136 airports, of which 94 are owned by the Airports Authority of India (AAI). The airports can be categorised as:

Airports	Number
International airports, including joint venture airports	17
Domestic airports	79
Customs airports	8
Civil enclaves	24
Others	8

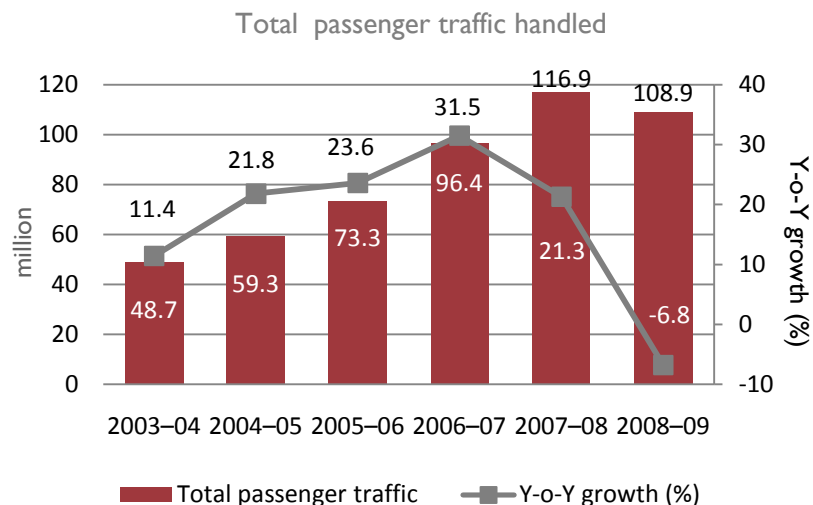
Airports – overview ... (2/2)

- Of 136 airports in India, 82 are operational.
- In 2007–08, the international airports, together, handled about 80 per cent of aircraft movement, 88 per cent of passenger traffic and 97 per cent of freight traffic.
- The responsibility of developing, financing, operating and maintaining all government airports in the country rests with the AAI, which was established in 1994 under the Airports Authority Act.
- The remaining airports, which are not managed by AAI, are governed by the Aircraft Act, 1934.

Sources: Ministry of Civil Aviation 2007–08 annual report; “Airports,” Public Private Partnership in India, Ministry of Finance website, <http://www.pppinindia.com/sector-airports.asp>, accessed 28 January 2010, Traffic News,” Airports Authority of India website, http://www.aai.aero/traffic_news/mar2k8_trafficnews.jsp, accessed 28 January 2010; “Statistics,” Directorate General of Civil aviation website, <http://dgca.nic.in/>, accessed 28 January 2010

Traffic handled - passenger traffic ... (1/2)

- Passenger traffic handled by Indian airports increased at a compound annual growth rate (CAGR) of 17.4 per cent between 2003–04 and 2008–09.
- The introduction of low-cost airlines, coupled with rising disposable incomes in the country, has resulted in a substantial growth in domestic passenger traffic, which increased at a CAGR of 19.2 per cent between 2003–04 and 2008–09.



Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports; Ernst & Young analysis

Traffic handled - passenger traffic ... (2/2)

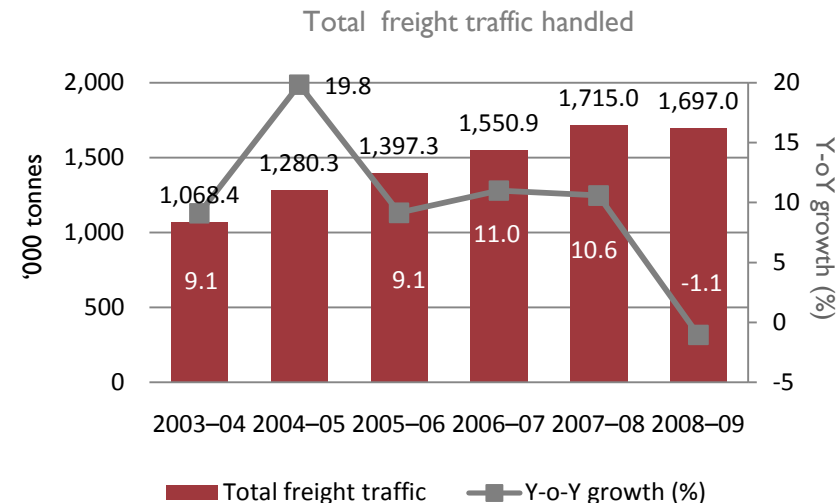
- International passenger traffic grew at a CAGR of about 16 per cent during the same period, backed by the growth of the tourism industry and the government's 'Open Sky' policy.



Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports; Ernst & Young analysis

Traffic handled - freight traffic ... (1/2)

- India has witnessed substantial growth in its international and domestic trade over the past few years, which has resulted in a significant increase in the freight traffic handled by airports in the country.
- The freight traffic handled by Indian airports increased at a CAGR of 9.7 per cent between 2003–04 and 2008–09.



Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports; Ernst & Young analysis

Traffic handled - freight traffic ... (2/2)

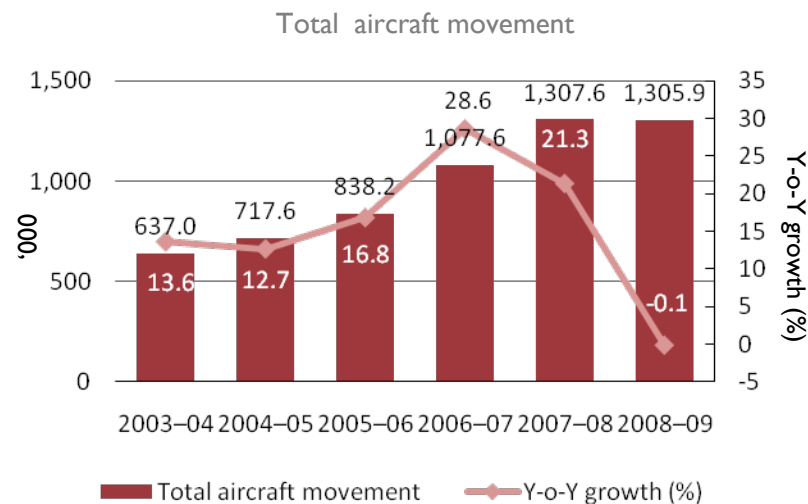
- International cargo traffic increased at a higher CAGR of 13.4 per cent, as compared to a CAGR of 10.9 per cent in the case of domestic freight traffic. The share of international freight in the country's total freight traffic increased from 65 per cent in 2003–04 to about 67 per cent in 2007–08.



Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports; Ernst & Young analysis

Traffic handled - aircraft movement ... (1/2)

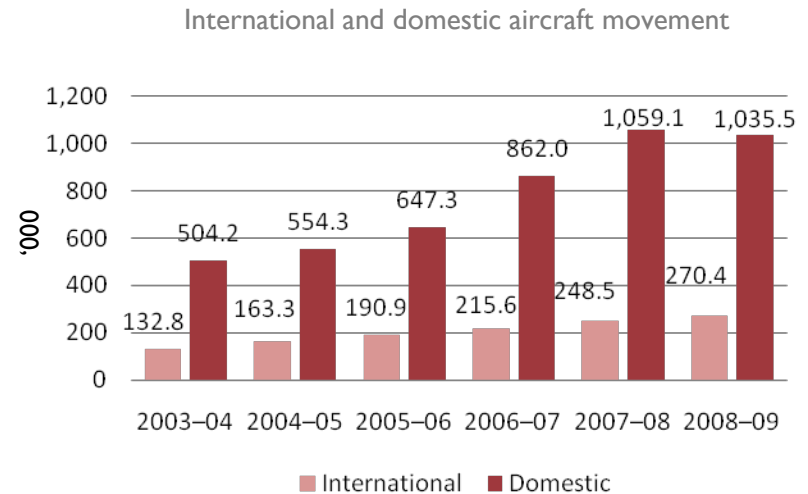
- Aircraft movement at Indian airports has received an impetus from the introduction of low-cost carriers and a liberalised aviation policy.
- Aircraft movement at Indian airports increased at a CAGR of 15.4 per cent between 2003–04 and 2008–09.



Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports.; Ernst & Young analysis

Traffic handled - aircraft movement ... (2/2)

- International and domestic aircraft movement almost doubled during the same period.



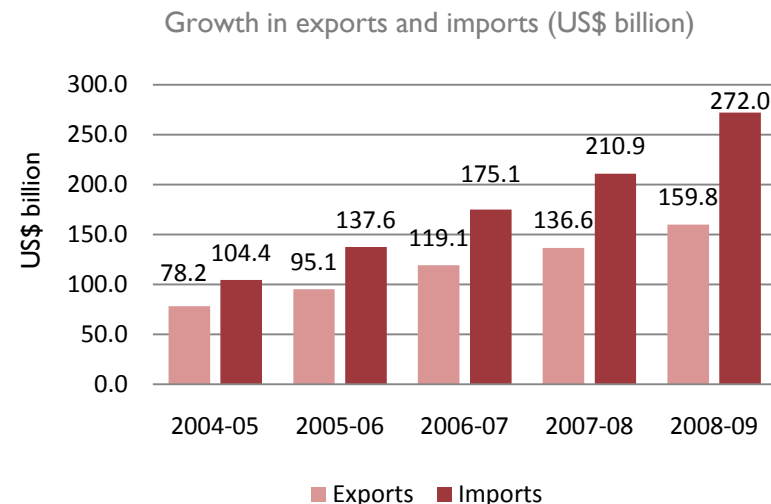
Sources: Ministry of Civil Aviation 2003-04, 2005-06, 2006-07 and 2007-08 annual reports.; Ernst & Young analysis

Growth drivers ... (1/4)

The growth in international trade and the introduction of low-cost airlines has substantially increased the quantum of traffic handled at airports.

Growing international trade

- India's airports handle about 30 per cent of the country's total trade in terms of value.
- Exports (including re-exports) grew at a CAGR of 19.56 per cent and imports at a CAGR of about 27 per cent between 2004–05 and 2008–09, driving the growth in traffic handled at the airports.



Growth drivers ... (2/4)

Introduction of low-cost airlines and rising disposable income

- Rising disposable incomes, especially among India's middle class, together with the introduction of low-cost carriers, has positively impacted the country's aviation industry and necessitated further development of airport infrastructure.
- The fleet size of scheduled domestic airlines increased from 184 in 2004–05 to 381 in 2007–08, of which 235 belonged to private players.

Sources: "Statistics," Directorate General of Civil aviation website, <http://dgca.nic.in/>, accessed 28 January 2010; "Policies," Ministry of Civil Aviation website, <http://civilaviation.nic.in/>, accessed 28 January 2010; "Data & Statistics," Ministry of Finance website, <http://indiabudget.nic.in/>, accessed 25 January 2010

Growth drivers ... (3/4)

A growing tourism industry and favourable government policies are promoting the development of airport infrastructure in the country.

Growing tourism industry:

- The Government of India (GoI) has been actively promoting the country's tourism industry, which grew at a CAGR of 11.2 per cent between 2004 and 2008.
- Domestic tourist traffic grew at a CAGR of around 11.4 per cent to 562.92 million tourists in 2008, as compared to 366 million tourists in 2004.
- The share of foreign tourist arrivals by air transport increased from 85.6 per cent in 2004 to about 89.1 per cent in 2008. Delhi and Mumbai airports together accounted for more than 50 per cent of these arrivals.

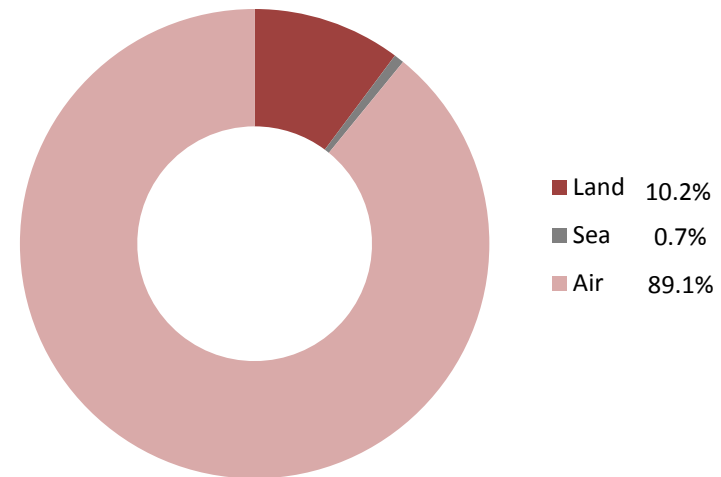


Growth drivers ... (4/4)

Open Sky policy

- The government is gradually liberalising air services and is seeking increased traffic rights under bilateral agreements with foreign countries such as the UAE, Mexico, Thailand and Germany. This has resulted in an increase in the number of flights operated by international airlines, which necessitates the development of additional airport infrastructure in the country.

Foreign tourist arrivals by mode of transport (2008)



Sources: "Statistics", Ministry of Tourism website, <http://www.tourism.gov.in/>, accessed 28 January 2010; "Publications", Secretariat for Infrastructure, Planning Commission, website, www.infrastructure.gov.in/publications.htm, accessed 18 January 2010; Ernst & Young analysis

Key trends ... (1/2)

Backed by government support, private sector participation is gradually increasing in the sector. Moreover, there is an increasing trend towards the use of non-scheduled airline services, which requires upgrading of airport facilities to handle the growing traffic.

Increasing private sector participation

- The government has recognised the need to involve private players in the development of world-class airport infrastructure, based on the high growth in traffic handled at airports in the past five to six years. With changing government policies, the involvement of private players is gradually increasing in the sector.

Increasing use of non-scheduled airlines

- With growing business activity, there is an increasing demand for non-scheduled airline services. In 2008–09, there were 99 non-scheduled airline operators with a combined fleet of 241 aircraft as compared to 65 operators with a combined fleet of 201 aircraft in 2007–08.

Source: “Economic Survey,” Ministry of Finance website, <http://indiabudget.nic.in/>, accessed 27 January 2010

Key trends ... (2/2)

Airports are working towards enhancing their aeronautical and non-aeronautical revenue streams.

User development fees

- Airport developers and operators in the country are charging user development fees (with permission from the government to increase their aeronautical revenues. For instance, the Delhi and Mumbai airports are charging an airport development fee (ADF) to fund their expansion plans, while the Hyderabad and Bengaluru airports are charging a user development fee (UDF) to fund the maintenance and management of facilities at these airports.

Increasing focus on non-aeronautical revenue streams

- Indian airports have been trying to follow the SEZ-aerotropolis model, which focusses on enhancing non-aeronautical revenues, including revenues from areas such as retail, advertising and vehicle parking. This provides the airport operator with a cushion to offset costs and funds for future growth and modernisation.
- The introduction of low-cost airlines, which, in general, do not offer complementary refreshment and sell a very limited variety of snacks and drinks, has given a boost to the food and beverages retail segment at airports.

Key players

Until recently, AAI was the only major player involved in the development and upgrading of airports in the country. However, private sector players are now getting increasingly involved in the sector. Some major private sector players include

Company/Group	Major projects
GMR Infrastructure Ltd	Development of Hyderabad International Airport, modernisation of Delhi International Airport
GVK Power and Infrastructure Ltd	Modernisation of Mumbai International Airport
Siemens	Development of Bengaluru International Airport
Larsen & Toubro (L&T)	Development of Bengaluru International Airport
Unique Zurich	Development of Bengaluru International Airport
Maytas Infrastructure Limited	Development of Simoga Airport (Karnataka) and Gulbarga Airport (Karnataka) on the build, operate and transfer (BOT) mode

Sources: "Project search," PPP India database website, <http://www.pppindiadatabase.com>, accessed 27 January 2010; "Greenfield Airport," Ministry of Civil Aviation website, <http://civilaviation.nic.in/>, accessed 29 January 2010

Note: This is an indicative list.

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Investments ... (1/3)

Private sector investment

- Five international airport projects have been undertaken under the public-private partnership (PPP) mode — the development of Cochin, Hyderabad and Bengaluru international airports and the modernisation of Delhi and Mumbai international airports. Details of some of these ongoing projects are provided in the table below

Project	PPP type	Cost	Status	Developer
Hyderabad International Airport	BOOT*	US\$ 608.3 million (INR 29.2 billion) (Phase-I)	Phase-I completed in March 2008	GMR Infrastructure Ltd
Bengaluru International Airport	BOOT*	US\$ 514.6 million (INR 24.7 billion) (Phase-I)	Phase-I completed in March 2008	Consortium led by Siemens, L&T and Zurich
Modernisation of Mumbai International Airport	LDOT**	US\$ 2 billion (INR 98 billion) (Phase-I)	Phase-I in progress (expected to be completed by 2010)	GVK Ltd
Modernisation of Delhi International Airport	LDOT**	US\$ 1.9 billion (INR 89.8 billion) (Phase-I)	Phase-I completed in March 2010	GMR Infrastructure Ltd

*BOOT: Build-own-operate-transfer, **LDOT: Lease-develop-operate-transfer

Sources: "Project search," Public Private Partnerships India Database, (Department of Economic Affairs) website, www.pppindiadatabase.com/Screens/frmSearch.aspx?AUTHORISEDUSER=N&ACTIONTAG=VIEW, accessed 19 January 2010;

Investments ... (2/3)

Private players are also undertaking various greenfield projects.

Greenfield airport	State	PPP type	Developer
Bijapur Airport	Karnataka	BOT	Marg Ltd
Simoga Airport	Karnataka	BOT	Consortium of Maytas Infrastructure Limited and VIE India Project Development and Holding
Hassan airport	Karnataka	BOOT	Jupiter Aviation & Logistics Ltd
Gulbarga airport	Karnataka	BOT	Consortium of Maytas Infrastructure Limited and VIE India Project Development and Holding

Government investment

- The government's Eleventh Five Year Plan (2007–2012) has set aside a budget of US\$ 1.9 billion (INR 93 billion) for the development of airport infrastructure.
- Projects involving the modernisation and expansion of Chennai and Kolkata airports, at an estimated cost of US\$ 376.7 million (INR 18.1 billion) and US\$ 404.6 million (INR 19.4 billion), respectively, are being undertaken by the AAI.
- Work at Kolkata Airport is expected to be completed by May 2010 and at Chennai Airport by January 2011.

Sources: "Greenfield Airport," Ministry of Civil Aviation website, <http://civilaviation.nic.in/>, accessed 29 January 2010;
 "Economic Survey 2009-2010," Ministry of Finance website, <http://indiabudget.nic.in/>, accessed 10 March 2010

Investments ... (3/3)

- The AAI is also upgrading and modernising 35 non-metro airports in the country, including those at Agra, Ahmedabad, Amritsar, Bhopal, Jaipur, Pune and Goa, at an estimated cost of around US\$ 1 billion (INR 46.6 billion).
 - Of these 35 airports, nine have been already developed, while the remaining are likely to be completed by 2010–11.
- The AAI is also developing airports in Northeast India, including Pakyong Airport (Sikkim) and airports at Itanagar (Arunachal Pradesh) and Cheitu (Nagaland).
 - The development of Pakyong Airport in Sikkim is underway and is expected to be completed by January 2012 at an estimated cost of US\$ 64.5 million (INR 3.1 billion). Cheitu Airport in Nagaland and Itanagar Airport in Arunachal Pradesh are at the approval stage.

Source: Ministry of Civil Aviation 2008-09 annual report; "Economic Survey 2009-2010," Ministry of Finance website, <http://indiabudget.nic.in/>, accessed 10 March 2010

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Policy and regulatory framework ... (1/3)

The government is encouraging private investment in the sector and has taken the following policy measures

- The government has approved the policy for greenfield airports in April 2008, to enable the development of greenfield airports on the PPP mode.
- The Planning Commission has also developed a model concession agreement to enable state governments to develop greenfield airports under the PPP mode.
- The government has allowed 100 per cent foreign direct investment (FDI), under the automatic route, for greenfield airports.
- For existing airports, 100 per cent FDI is allowed. However, approval is required from the Foreign Investment Promotion Board (FIPB) for FDI exceeding 74 per cent.

Policy and regulatory framework ... (2/3)

- The government has allowed 100 per cent tax exemption on airport projects for a 10-year period.
- It allows airport developers to charge passengers a development fee.
- The government is also in the process of setting up the Airport Economic Regulatory Authority (AERA), which will approve tariffs for aeronautical services and also for monitoring the performance of airports.

Policy and regulatory framework ... (3/3)

Growth in the aviation sector is driving the need to develop and modernise the infrastructure at Indian airports. Airport operators, including the AAI and private developers, receive airport development fees from airlines, which contribute to their revenue stream. The government has implemented the following policies to support growth in the aviation sector.

- FDI up to 49 per cent is allowed in the domestic airlines sector under the automatic route, but not in the case of foreign airline companies. However, non-resident Indians (NRIs) can hold up to 100 per cent equity in domestic airlines.
- The Ministry of Civil Aviation (MOCA) has raised the FDI limit in cargo airlines from 49 to 74 per cent.
- With the rise in fuel prices, the government has exempted the 5 per cent customs duty levied on jet fuel, to help airlines reduce their operational costs. Some states, including Andhra Pradesh, Rajasthan and Maharashtra (excluding Mumbai and Pune), have reduced their sales tax on aviation turbine fuel (ATF).
- The government has also adopted an Open Sky policy, which attempts to increase the traffic rights (under bilateral agreements) provided by foreign countries such as the UAE, Mexico, Thailand and Germany.

Sources: "Airports" Investment Commission of India website, www.investmentcommission.in/ports.htm, accessed 27 January 2010; Ministry of Civil Aviation 2008-09 annual report

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Opportunities ... (1/3)

Airport development through PPP

- Under the Eleventh Plan, the government expects an investment of around US\$ 6.5 billion (INR 309.7 billion) for the development of airport infrastructure. Of the total investment, more than two-thirds is expected to come from the private sector. The break-up of the investment expected under the Eleventh Plan is provided in the table below

Area of investment	2007-08	2008-09	2009-2010	2010-11	2011-12
Metro airports	574.6	573.3	552.1	525.0	503.3
Non-metro airports	146.0	153.3	172.9	190.6	216.5
Greenfield airports	248.6	320.6	382.1	522.5	693.1
North-east airports	17.7	19.6	21.5	23.5	25.8
CNS-ATM equipment	62.1	83.3	101.5	123.1	163.5
Total (US\$ million)	1,085.0	1,150.2	1,230.0	1,384.8	1602.3
Total (INR billion)	52.1	55.2	59.0	66.5	76.9

Sources: "Publications," Secretariat for Infrastructure, Planning commission website, www.infrastructure.gov.in/publications.htm, accessed 18 January 2010;

Opportunities ... (2/3)

Airport development and modernisation

- The government is promoting private participation for the development of greenfield airports and modernisation of existing airports. It is also working towards making existing non-operational airports in the country operational.

City-side development

- The government is focussing on the city-side development of airports, including real estate and commercial development. The city-side development of 24 non-major airports is being taken up by the AAI under the PPP mode. These non-major airports include Ahmedabad, Amritsar, Guwahati, Jaipur, Udaipur, Thiruvananthapuram, Lucknow, Madurai, Mangalore, Aurangabad, Khajuraho, Rajkot, Vadodara, Bhopal, Indore, Raipur, Visakhapatnam, Tiruchirapally, Bhubaneswar, Varanasi, Agatti, Dehradun, Ranchi and Dimapur. Moreover, the government has decided to lease out land for the city-side development of 10 airports, including Ahmedabad, Kolkata, Jaipur, Lucknow, Amritsar, Indore, Visakhapatnam, Hyderabad, Guwahati and Bhubaneswar, in the first phase.

Airport connectivity

- The Ministry of Civil Aviation is focussing on improving connectivity to major airports. It has selected 12 airports in the first phase. These include the Mumbai, Chennai, Bengaluru, Kolkata, Hyderabad, Ahmedabad, Cochin, Coimbatore and the proposed Navi Mumbai and Noida airports.

Source: Ministry of Civil Aviation 2008-09 annual report; "Economic Survey 2009-2010," Ministry of Finance website, <http://indiabudget.nic.in/>, accessed 10 March 2010

Opportunities ... (3/3)

Regional connectivity

The government is promoting the expansion of air connectivity between Tier II and Tier III cities and has introduced a separate category of Scheduled Air Transport (Regional) Services. This is a significant opportunity for the development of airports in small cities.

MRO facilities

The substantial increase in international air traffic and the growth in the fleet size of domestic airlines has given India the opportunity to provide Maintenance & Repair Operations (MRO) services to these airlines.

Source: Ministry of Civil Aviation 2008-09 annual report

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Industry associations

Airports Authority of India (AAI)

Rajiv Gandhi Bhawan, Safdarjung Airport,
New Delh-110 003
Phone: 91-11-24632950

Directorate General of Civil Aviation (DGCA)

Aurbindo Marg, Opp. Safdarjung Airport,
New Delhi-110 003
Phone: 91-11-24622495
Fax: 011-24629221
E-mail: dri@dgca.nic.in, dfa@dgca.nic.in

Note

Wherever applicable, numbers in the report have been rounded off to the nearest whole number.
Conversion rate used: US\$ 1 = INR 48

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