



Air Connectivity in South Asia

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Outline

- Background to Air Connectivity
- International trends in air connectivity
- Air connectivity in South Asia
- Way Forward



Background to Air Connectivity

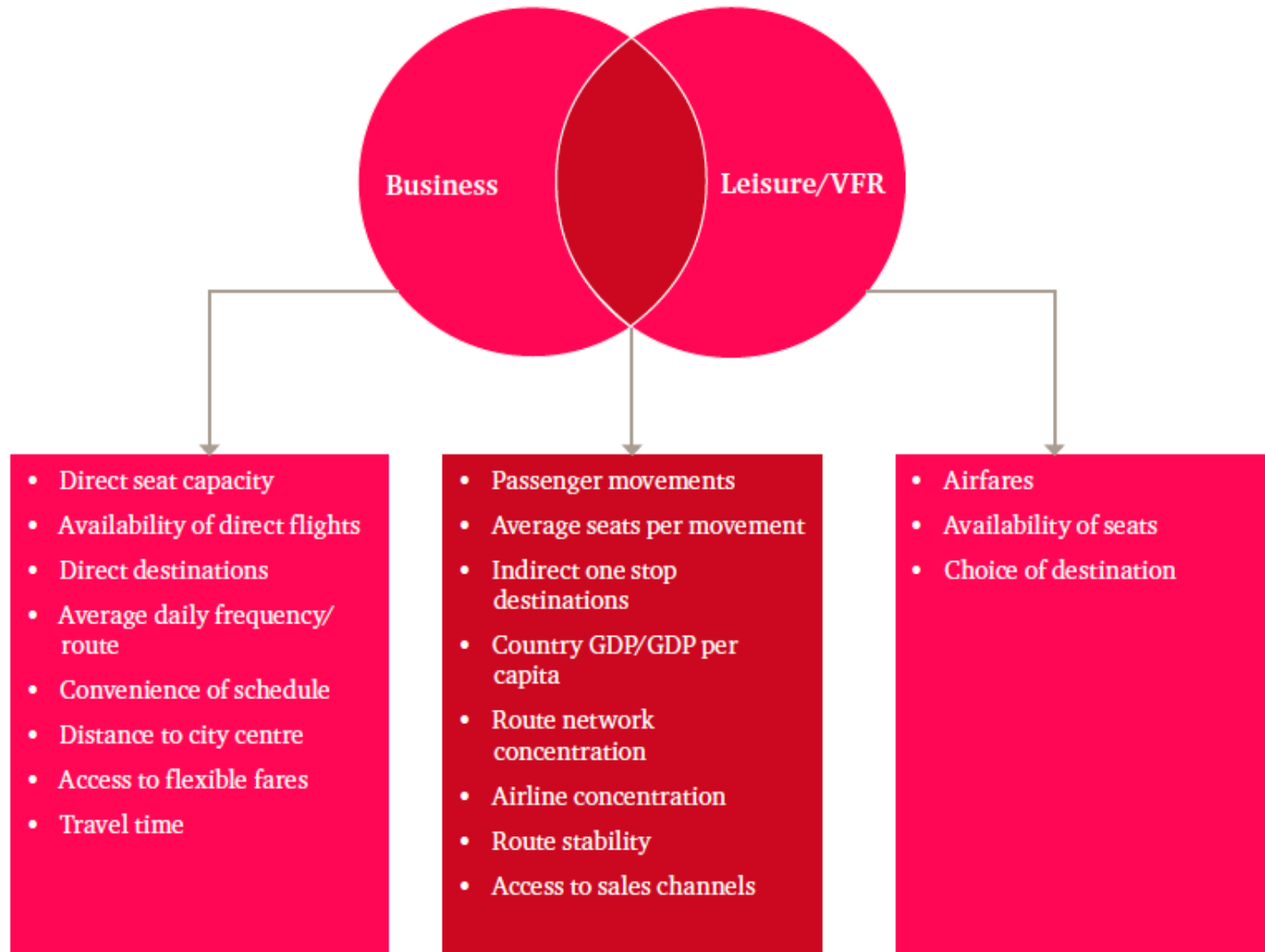
What is Air Services Connectivity?

- An indicator of a network's concentration and its ability to move passengers from their origin to their destination seamlessly. (ICAO)
- Enables a country to unlock its economic growth potential by attracting business investment and human capital

How to measure air connectivity?

- Measured using a variety of markers at various levels of granularity
- Include: total passenger movements, airfares, number of direct destinations, and travel time (Depends on the type of passenger involved)

Types of Passengers



Source: PwC, Connectivity and Growth (2013)

Air Connectivity Indices

Measure	Description
York Aviation Business Connectivity Index	Captures economic importance of destinations, measures value of connectivity to businesses
Netscan Connectivity Index	Captures seat capacity, accounts for both direct and indirect connections and for transfer time as well as potential delay time when connecting
IATA Connectivity Index	Captures the importance of destinations based on the size of the final destination airport
World Bank Air Connectivity Index	Weights value of a route based on the number of onward connections available reflecting benefits of hubs
World Economic Forum Connectivity Index	Presents data on scheduled available seat kilometres per week in 2012 for a sample of 144 countries

Source: PwC, Connectivity and Growth (2013)



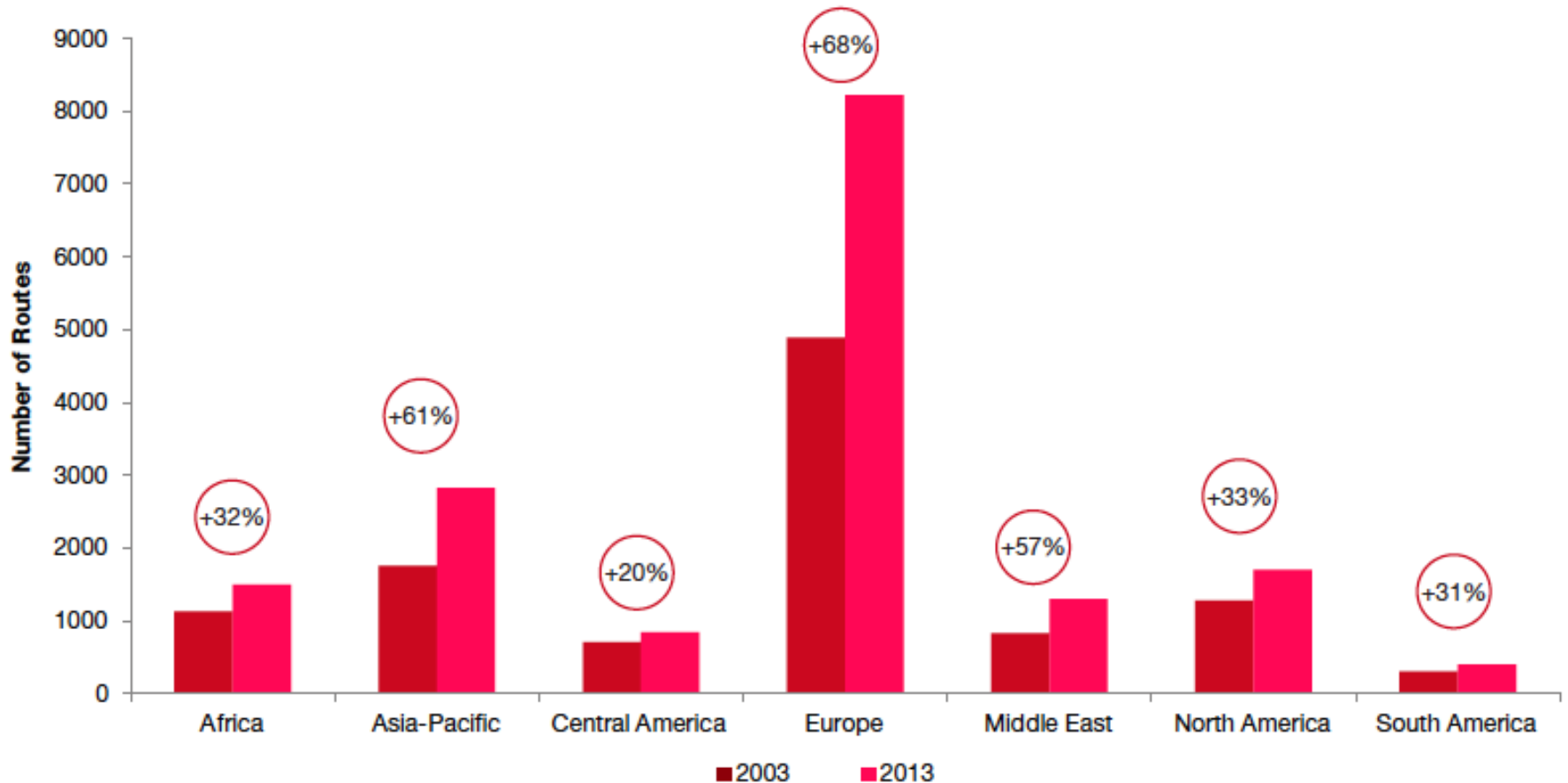
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Global Air Connectivity

Economic Benefits of Air Connectivity

- Globally contributed US\$ 2.4 trillion in 2012
 - 2.4% of Global GDP
- Direct economic benefits: US\$ 606 billion
- Indirect economic benefits: US\$ 697 billion
- Complements growth of hubs
- Facilitates intra-regional trade and investment

Number of International Routes (by region)



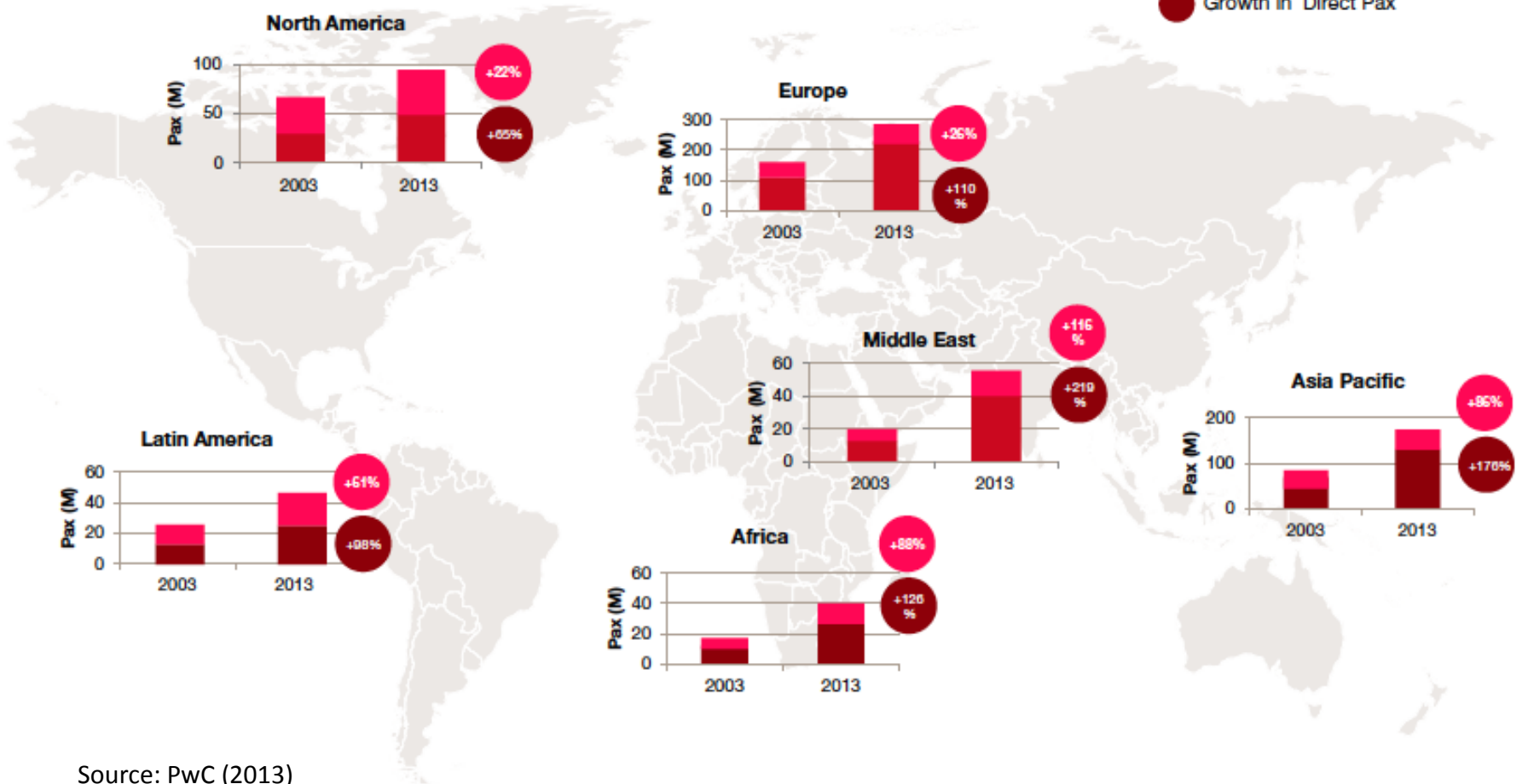
Source: Milanamos, PwC



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Direct and Connecting Passenger Traffic, 2003 and 2013

- Growth in Connecting Pax
- Growth in Direct Pax



Source: PwC (2013)

South Asia in a Global Perspective

Air Connectivity Index (2007)

	ACI (%)	Rank
Afghanistan	3.08	115
Bangladesh	2.79	121
Bhutan	2.74	123
India	3.82	88
Maldives	1.66	175
Nepal	2.86	119
Pakistan	3.23	111
Sri Lanka	2.02	144

Source: World Bank



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Drivers of Air Connectivity

- Geography
- Airport infrastructure
- Airline business models
- Regulatory and economic framework

Air Connectivity in South Asia

Connectivity & SAARC

- Intra-regional connectivity identified as policy priority in 2010 (Thimpu)
- 2010-2020: “Decade of Intra-regional Connectivity in South Asia”
- Regional integration efforts rely heavily on strengthening connectivity
- Economic integration through intra-regional trade & regional value chains

Commercial Viability

- India is most connected, followed by Sri Lanka and Bangladesh
- Six “commercially viable” routes (more than two flights per day)
- Six “well serviced” routes (two flights per day)
- Three “adequately serviced” routes (more than 10 or more flights per week)

Bilateral Connectivity

Flights per week (bilateral):

Country	Sri Lanka	India	Pakistan	Bangladesh	Maldives	Nepal	Afghanistan	Bhutan
Sri Lanka		144	10	6	30	0	0	0
India	144		6	67	32	71	22	23
Pakistan	10	6		10	0	1	6	0
Bangladesh	6	67	10		1	5	0	2
Maldives	30	32	0	1		0	0	0
Nepal	0	71	1	5	0		0	14
Afghanistan	0	22	6	0	0	0		0
Bhutan	0	23	0	2	0	14	0	

Source: Compiled using data obtained from websites of various South Asian airlines (as of May 2015)

Bilateral Connectivity (cont.)

Air routes in South Asia (bilateral)

Country	Sri Lanka	India	Pakistan	Bangladesh	Maldives	Nepal	Afghanistan	Bhutan
Sri Lanka		10	2	1	1	0	0	0
India	10		3	5	4	4	1	6
Pakistan	2	3		1	0	1	1	0
Bangladesh	1	5	1		1	1	0	0
Maldives	1	4	0	1		0	0	0
Nepal	0	4	2	1	0		0	0
Afghanistan	0	1	2	0	0	0		0
Bhutan	0	6	0	1	0	1	0	

Source: Compiled using data obtained from websites of various South Asian airlines (as of May 2015)

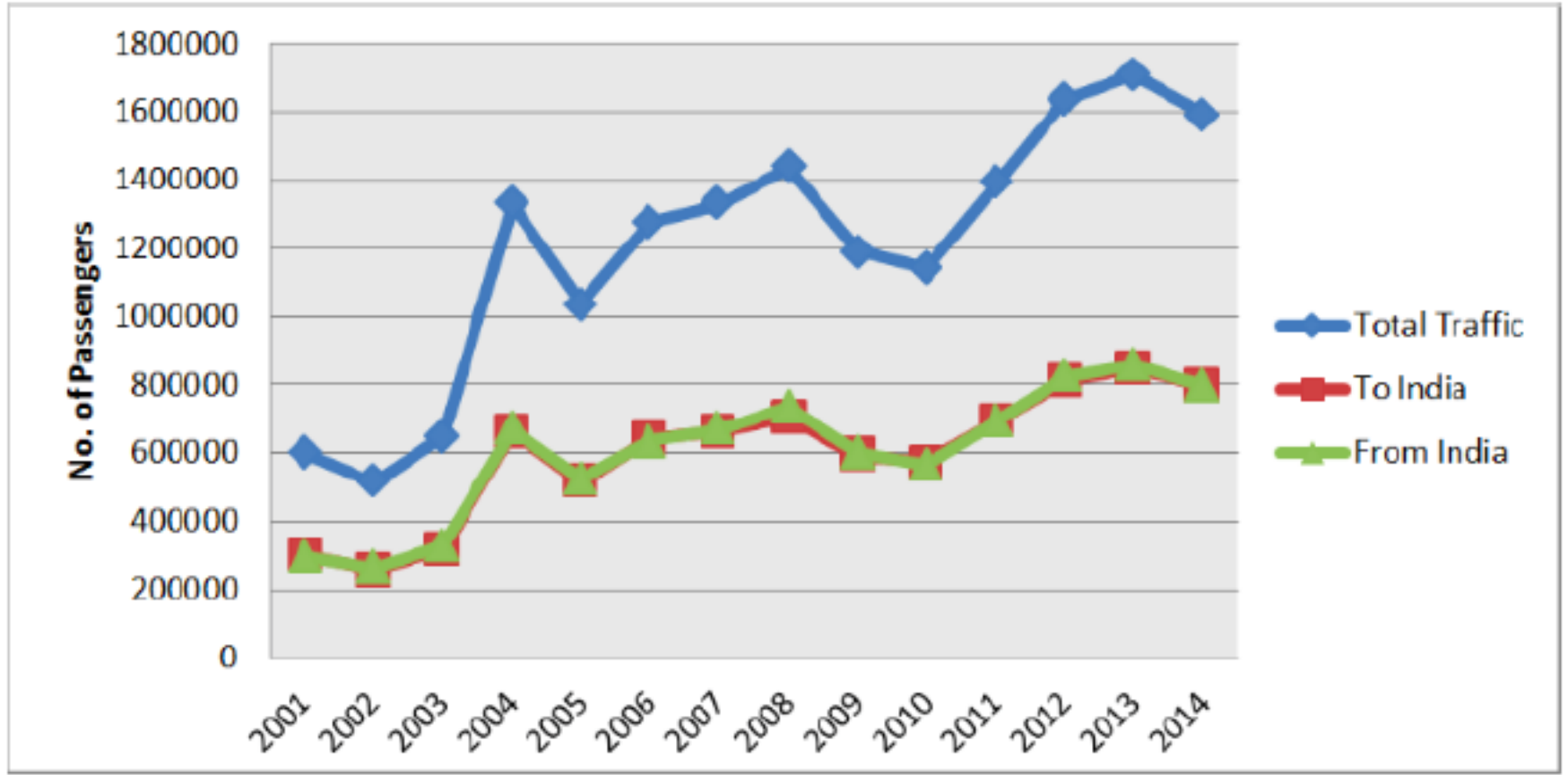
Air Services Agreements

- Bilateral Air Services Agreements (BASAs) within the region are more restrictive than the average BASA
- South Asian BASAs with countries outside the region are more liberal than those within
- Regulatory practices affect commercial viability (e.g. code sharing)
- Ground handling monopolies also significant hindrance

Case Study: Indo-Sri Lanka Connectivity

- Extensive liberalization of air services in 2003: pricing, competition, capacity, and new routes
- Market forces allowed to set prices
- Private Indian firms allowed to operate between countries and regulatory priorities changed as well
- Sri Lanka also relaxed visa requirements for Indian nationals

Indo-Sri Lanka Connectivity



Source: Compiled using published data from Annual Statistical Reports (Various Years), The Directorate General of Civil Aviation, Government of India (2000-2014)

Way Forward

Policy and Investment Future

- More focus on improving efficiency of airline business models (e.g. Low cost carriers)
- Continuous strengthening of airline networks
- Focus on developing aviation infrastructure (public-private partnerships)
- Better regulatory and economic frameworks (national carrier advantage issues)

Thank You



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