Emergence of Tier II Airports in India: Challenges and Opportunities

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Abstract: *Connectivity promotes trade, brings people closer, and integrates the economies. We dream for a cherished world in which countries exchange goods, factors and ideas without barriers. Openness or globalization is potentially beneficial to all but requires appropriate policy designs to realize it. Improving connectivity is essential for the region's prosperity, continued growth and, most importantly, poverty reduction. Effective and efficient infrastructure is essential for industrial and services competitiveness. Improved connectivity lowers costs and increases reliability.*

This is of great importance for industrial transport and thus for production, cost effectiveness and reliability of supply. Undoubtedly, distance is exogenous, and it is a major determinant of a region's trade prospects. In absence of adequate connectivity, enormous opportunities generated by the dynamic growth centres of Asia may stop at their international borders.

With the opening of skies and ramification of archaic dictums like 5/20 rule and the increased cap on FDI in the sector, civil aviation has become a lucrative business opportunity in the country. The era that predate the LPG period witnessed the levitation of a home grown Jet Airways as an alternative to the much burdened Air India which was plagued with a number of administrative deficiencies. Post deliberations the country has seen the emergence of airline transport providers in the Low Cost Carrier (LCC) segment which has changed the aviation paradigm in India.

With the quantum of air traffic growing manifold over the years, air transportation has penetrated the lengths and width of the country, this phenomenon has created a huge distinction in the supply side of airline economics by segmenting airports on the basis of volumes handled, available capacity and Passenger Load Factor (P.L.F). In the current scenario airports in India are rated as Tier I, II and III, while Tier I airports are handling the onus of the enlargement in airline supply capacities and have attained operational and financial sustainability on the other hand, Tier III constituents are bearing the brunt of lack of traffic and are facing rampant closure at many prominent locations.

This working paper focuses on the opportunities and challenges of airports situated on Tier II geographies which today serve as subsidiary airports to their Tier I counterparts (according to proximity) have potential not only to carve a niche for themselves but also bring Indian aviation to newer avenues. The paper will attempt to identify, evaluate and asses the areas of key concerns that can jeopardize their continuum.

I. Airports In India

There are approximately 449 airports (as of today) functioning under the purview of the AAI, many of these establishments are run and operated by commercial bodies like GMR and GVK. They are categorized by the nature of operations/ terminals available (domestic and international), volume of passengers handled (Tier I and Tier II) and air traffic handling capacity (Low, Medium and High).

The 4 major traditional hubs of New Delhi, Kolkata, Mumbai and Chennai are now being supplemented by secondary gateways that are situated around logistical proximity and provide operational relief to the former. Airports in the country are generally either Greenfield (have provisions for expansion, mostly located outside urban limits) or Brownfield (do not have any scope of further expansion).

Restriction in accessibility has pushed for the development of aerodromes and air strips at many places in the north east that provide connectivity for civil and military purposes. Airports in India are also of mixed use, while one portion of the facility is being used by civilian arrivals and departures (Civil Enclaves) the major portion is being administered by an armed force of the country.

The government has mooted the development of additional airports in addition to the present inventory to boost runway availability and foster capabilities in key verticals like passenger transport, logistics and supply chain.

II. Conception of Secondary Airports

With the increment in air traffic the onus of handling the magnitude befalls on the primary airbase thereby restricting bandwidth and leading to large gaps in service delivery. The fact that air transportation is a

complex network of processes as it consumes a mix of core (RAMP/APRON, Taxiway Administration, ATCC, AOCC, CCMCU, Catering and Cargo- related operations) and ancillary (Concessionaires, Passenger Service Facilities, Retail Outlets etc) of the air and city/land side areas of the airport respectively, given this premise the airbase must be well equipped with all infra and super structure to support a multitude of activities.

To ease the burden and assist Tier I High Traffic airbases to seamlessly afford services to its stakeholders, the government under the UDAN scheme has mooted to develop tier II airports (used interchangeably with the term "Secondary Airports") in and around the vicinity of its larger counterparts to offset the pressure that comes during seasons of high demand, hence the notion of secondary airport arises. While this premise is not the sole case in point to develop an airport, other important factors that were taken into consideration include T.A.T (Turn Around Time) and to cap potential of such airports in an effort to supplement capacity building in air transportation.

The Airports Authority of India (AAI) is targeting to develop over 90 different airports to absorb the excess pressure off the existing runway inventories. But the fundamental question remains, would such airports able to fill the gap between demand and supply or just be stop-gap arrangements during peak traffic seasons.
The potential of the geography will also impacts the effectiveness and feasibility of operating an airport.

III. Passenger Load Factor and Secondary Airports

Passenger load factor, or load factor, measures the capacity utilization of public transport services like airlines, passenger railways, and intercity bus services. It is generally used to assess how efficiently a transport provider fills seats and generates fare revenue.

According to the International Air Transport Association, the worldwide load factor for the passenger airline industry during 2015 was 79.7%

Passenger load factor is an important parameter for the assessment of the performance of any transport system. Almost all transport systems have high fixed costs, and these costs can only be recovered through selling tickets. Airlines often calculate a load factor at which the airline will break even; this is called the break-even load factor. At a load factor lower than the breakeven level, the airline will lose money, and above will record a profit.

The environmental performance of any transport mode improves as the load factor increases. The weight of passengers is normally a small part of the total weight of any transport vehicle, so increasing the number of passengers changes the emissions and fuel consumption to only a small degree. As a vehicle is more highly loaded, the fuel consumed per passenger drops, and fully loaded transport vehicles can be very fuel efficient.

Very heavy loading of a transport vehicle are described as a crush load. Crush loading is a very high level of loading where passengers are crushed against one another. Commenting in May 2017 on the United Express Flight 3411 incident, in which a passenger was forcibly removed, investor Warren Buffett said that passenger demand for cheap flights was resulting in high load factors, resulting in "a fair amount of discomfort."

So one of the primary concerns remain that the airport is salient in all its features and a condescending PLF may grip a large Tier I airport leading to staggering of service levels and dismissal service aspirations. Such conditions have been observed in airports with high PLFs and low carrying capacities.
Such events lead to the warrant of Tier II airports at the secondary levels.

IV. Environmental Constraints

Airports tend to consume a high amount of resource and affect the local ecology of a destination. In the current scenario when the world of aviation in tandem with the global community is fighting the ills of climate change, tier I airports which have been built on non -sustainable models pose a serious and immediate threat to the environment of its location.

We must also take into consideration the total carrying capacity of the proposed site as extensive invasion of a certain location can deride the former of various resources, factors like ATE (Air Turbine Emission), discharge of effluents and over-utilization of soil may lead to serious repercussions in the future.
This provides the scope of a sustainable Tier II secondary airport that can buffer any ill effects of a tier I airport.

V. UDAN RCS

In a development that is likely to be welcomed by air travelers, as many as 18 underserved cities are set to figure on India's aviation map from January, with the government expecting airlines to submit proposals to fly on various routes to and from these cities under the Regional Connectivity Scheme (RCS), also known as UDAN or UdeDeshKaAamNagrik.

Such initiatives by the government of India prove that the government is attempting to bring under the gambit a wide array of airports that will have the potential to connect underserved markets as well operationally relieve larger ones.

The following tables are the sites of tier II airports which the government will invest in the coming time, these airports where basically under a rainshadow area once but now there are emerging as leading operational bases.
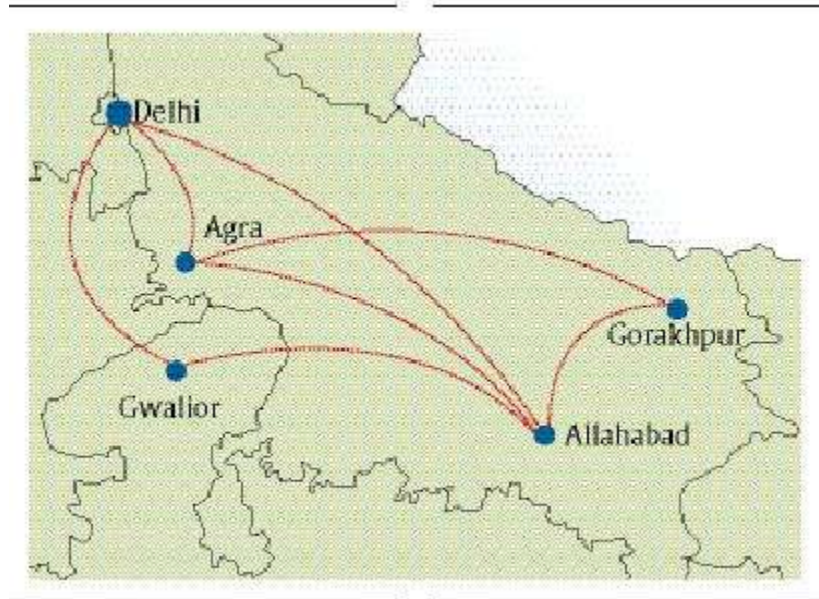

Table 1 : Secondary Airbases In North India
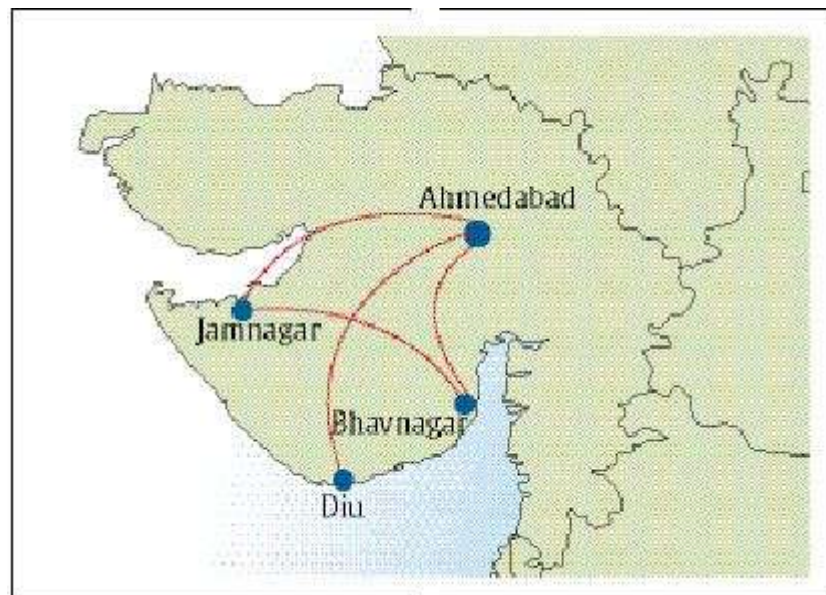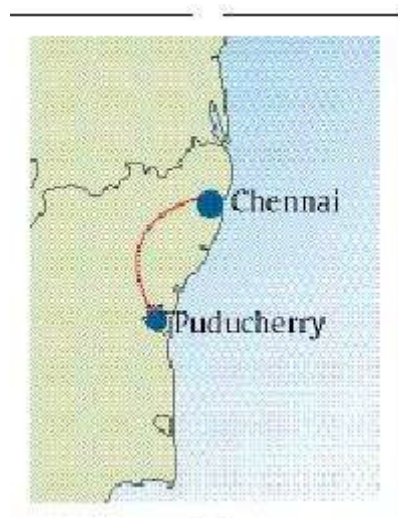
Pic Credit : Indian Express

Table 2: Secondary Airbases in Gujurat

Table 3 : Secondary Airbases in South India