

AIRPORT REAL ESTATE ON A NEW RUNWAY

OPPORTUNITIES AHEAD

FOREWORD

Traditionally, airports have been owned, managed, and operated by governments. However, there has been a worldwide trend towards private sector involvement with varying degrees of private ownership and responsibilities, including the use of Public-Private Partnership (PPP) models. India has walked a long way since 2003, when Mumbai and Delhi airports were privatized. Although the aviation sector has been hit hard due to the effects of COVID, the sector is expected to recover in 2021. India's long-term growth prospects and the aviation sector's contribution in unleashing the economy's potential make it one of the key sectors to focus on in the mid to long term. Colliers International India's latest report on the aviation sector provides insights into those stakeholders interested in airport development and management to accelerate their success in this important sector.



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SUMMARY AND RECOMMENDATIONS

India currently has 29 international and 114 domestics operational airports. The Government of India is planning to develop additional 100 airports by year 2030, increasing annual passenger count to 1.1 billion from about 316 million presently.

Further, the Government recently leased out six operational airports to a private operator and another six are in the pipeline for privatization. There are several greenfield airports under land acquisition, planning and construction stages.

AVIATION SECTOR OF INDIA

According to IATA research, due to the COVID pandemic the aviation industry has been affected severely and may take about 7-8 quarters to return to the 2019 level in terms of passenger travel.

- Colliers recommends that the Government continues the privatization process by offering various relaxations in bid conditions. Reduced upfront premiums and a focus more on revenue share with longer tenure may maximize participation in the processes by the private sector. This may also attract foreign players.
- Colliers recommends that the Government include more land parcels in privatization packages to make bids more feasible. The operators may use the non-aero revenue to offer a higher revenue share to the government.
- Colliers recommends that prospective airport operators should explore more innovative non-aero revenue earning options by formulating appropriate strategies and analyzing passenger traffic forecast.
- Colliers recommends that operators consider both - city level demand and airport passenger forecast to develop real estate products like logistic parks, smart warehousing, co-working, industry specific developments like textile park, Sports, Leisure and Entertainment, startup hubs etc.

AVIATION SECTOR OF INDIA

As the world is witnessing industrial revolution 4.0, mobility has emerged as a key attribute to a successful economy. The mobility of resources-like labour and material is very important. Airports are considered as one of the key drivers for a global or local economy. A new airport has the potential to change the dynamics of a destination in terms of increasing its connectivity to other parts of the world, bringing in revenue, facilitating trade logistics and improving commutes. From the perspective of a city, a new airport can be a growth catalyst that, can boost real estate development and pave the way for a new transport corridor.

The civil aviation industry in India has emerged as one of the fastest growing industries during the last three years. India has become the third largest domestic aviation market in the world and is expected to overtake UK to become the third largest air passenger market by 2024. (Source: IATA)

The Government of India has allowed 100% FDI in aviation sector through the automated route. Both Central and state governments are trying to develop new greenfield airports, privatize existing airports and promoting various policies that encourage PPP developments.

Since the year 2000, the number of airports has doubled in the country. The number of aircraft owned by Indian airlines have tripled and is expected to multiply further in the coming years. Cargo handled has multiplied 4.5 times from the year 2000. These numbers indicate the growth and potential of the Indian aviation industry.

The Ministry of Civil Aviation plans to develop 100 airports by 2030 and has forecast that 1.1 billion passengers are likely to use airports over the next 10 years. The aviation sector currently contributes about INR 5.20 lac crore (USD72 billion) to India's GDP. The contribution is expected to increase by INR 36 lac crore (USD500 billion) by 2028. (Source: Invest India)

The Indian aviation sector is fueled by the Indian middle class, a global work culture, India opening doors to global manufacturers and the increase in working population.

The six largest airports of India-Mumbai, Delhi, Bengaluru, Kolkata, Hyderabad and Chennai handle about 200 million passengers per year (2018-19) – of which, 70% of the traffic is managed by Delhi, Mumbai and Bengaluru. Domestic passenger growth is expected to be in range of 10-12% per year at the major airports in next 3 to 5 years. (Source: AAI)

IMPORTANT EVENTS IN HISTORY OF AVIATION



Tapping the opportunity, the Ministry of Civil Aviation has initiated the privatization of the Indian airports. Globally, privatization of airports was first started in 1987, when the British Government privatized Cambridge's Hobart airport. By the mid-1990s nearly 50 airports worldwide had been privatized. In 1999, Cochin International Airport, became India's first airport developed by the private sector. Following this, in the early 2000s, the Government of India initiated privatization of other airports like Delhi, Mumbai and Bengaluru as well.

In India, the Airport Authority of India (AAI) – under the Ministry of Aviation is the organization responsible for the expansion, management and maintenance of airport infrastructure. Under AAI there are 29 international airports and 114 domestic airports. (Source: AAI)

The potential of India's airport sector is largely unfulfilled. Through the expansion and modernization of airports, Colliers believes India can achieve tremendous growth in tourism, hospitality, leisure, recreation and many other services. Passenger traffic in India stood at about 317 million in year 2018-2019. Out of which domestic passenger traffic stood at 253 million while international traffic stood at 64 million. (Source: AAI) As the fleet size, passenger and cargo volume grow, India is going to emerge as a major market for the Maintenance, Repair & Overhaul (MRO) industry and Air Cargo hubs. An airport is considered as a gateway to a city in many senses and holds immense potential from the real estate perspective.

However, post March 2020 due to COVID, the worldwide aviation industry has been hit severely impacted due to lockdowns imposed across the world. Numbers of flights have dropped about 80% since April 2020, compared to the 2019 peak. (Source: IATA). India has had similar effects, Indian aviation operations were suspended from 25th March to 24th May 2020, this brought huge fiscal losses to operators, airlines, retailers and authorities. The Domestic aviation sector became partially operational in Q3 of 2020 and by Q4 some international operations resumed under "Air bubble" schemes. However, it will take several quarters, for the operations to resume normalcy, as the effects of Covid recede over time.

REVENUES FROM NON-AERONAUTIC FUNCTIONS OF AIRPORT

Airports have emerged as not only transport nodes but also as business hubs due to real estate developments that are beneficial, such as aero cities, hotels, commercial, retail, industrial. Air travelers mainly comprise business professionals and tourists with a higher propensity to spend. Airport development is generally divided in to two parts:

Airside, mostly the aeronautical part of the airport, where all core activities are performed – runways, hangar, terminal buildings, control tower, fuel storage.

Landside, which hosts the non-aeronautical functions and lands for future developments. Most of the supporting or ancillary activities i.e. real estate, parking, roads and other supporting infrastructure are located there.

An aerial photograph of an airport terminal and surrounding areas. A blue box with the text 'Airside Development' is positioned over the terminal and tarmac area, with a dashed arrow pointing to the terminal building. Another blue box with the text 'Landside Development' is positioned over the parking and road area, with a dashed arrow pointing to the parking lot. The background shows a city skyline under a hazy sky.

Airside Development

Landside Development

REVENUE FROM AIRPORT REAL ESTATE

The revenue from airport real estate is in range of 25-40% of total revenue for an airport. Passengers spend about INR 576 (USD8) at an airport during their trips. This revenue is generated from both landside and airside developments, mostly from rental income of real estate based on passenger spending. For example, Delhi International Airport, which is a joint venture between the GMR group and Airport Authority of India, has almost 230 acres of land around for real estate development. Of this, 45 acres have been developed as an Aerocity, which hosts many premium hotels and office buildings.

Sometimes the airport owner does JV for such developments. Land at airports can also provide additional advantage in the raising of funds for modernization and upgrading an airport.

AIRPORT RETAIL

Airport passengers are captive customers that have plenty of time for shopping due to the requirements of prior check-in. Airport passengers are generally in the high-income bracket and are more likely to spend on premium products. An airport is an ideal location for most of the premium brands to test the market. Many stores pay higher rentals just for a presence in an airport. Food and Beverages, electronics, accessories, etc. witness higher sales volumes.

Airport retail are high revenue outlets and operators have developed a different mechanism of charging rent from retailers. Most of the retailers are on Minimum Monthly Guarantee (MMG) plus revenue share rental models.



TYPES OF RETAIL IN AIRSIDE DEVELOPMENT

| | ● Revenue Share monthly from gross revenue (in %) | ● General tenure (Years) | ● MMG range INR/PSF/month |
|------------------|---|-----------------------------|------------------------------|
| Duty free shops | 34-38% | 10 | 575-650 |
| F&B | 24-28% | 10 | 200 - 250 |
| Specialty retail | 15-20% | 5 | 480 - 540 |
| Retail | 25-30% | 10 | 425 - 500 |
| Kiosk | 5-7% | 5 | 4000 & above |

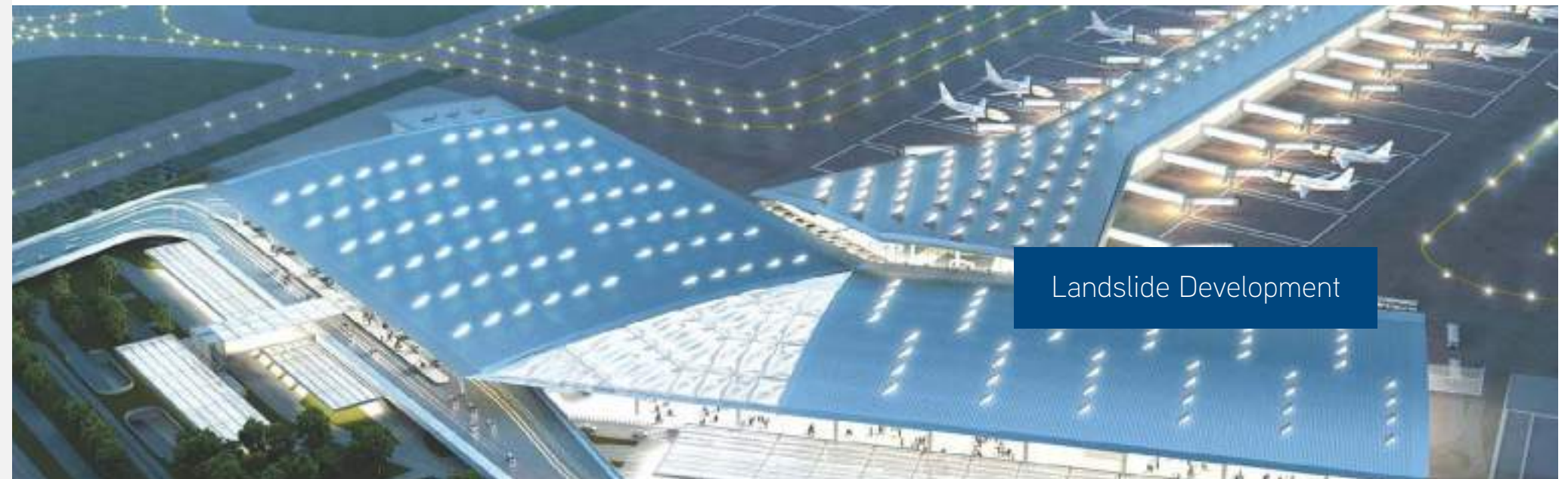


*in context to the airports in Metro cities
Source: Colliers International Research



ABOUT DELHI AIRPORT (CASE-STUDY)

Delhi airport is one of the largest and busiest airports in India as well as in South Asia. Due to airport development, the regions in vicinity have grown many fold. Hospitality industry is one of the most grown sectors in the region.



Landslide Development

ABOUT CATCHMENT



Indira Gandhi airport - Delhi is strategically located in the NCR and in close proximity to highly affluent populated micro-markets i.e. South Delhi, Gurgaon, Faridabad, Noida, Dwarka. Due to the development of the metro rail, all these regions are internally connected with easier and faster commutes.

The retail sector in Delhi is witnessing a huge growth of new and organized retailing formats like department stores, hypermarkets, supermarkets and specialty stores. Suburban areas like Noida and Gurgaon have experienced more activity due to the ready availability of comparatively cheaper land, increased job creation and growing in-migration.

Total stock of retail in Delhi is **0.53 million sqmt** with about 85% occupancy and average rentals are about INR 165 per square feet (USD25 per square meter). While the retail stock at the Delhi Airport Aerocity (the Aerocity) is **65,000 sqmt** landside and 25,000 sqmt airside with more than 90% occupancy. The rental of landside development is about INR 185 per

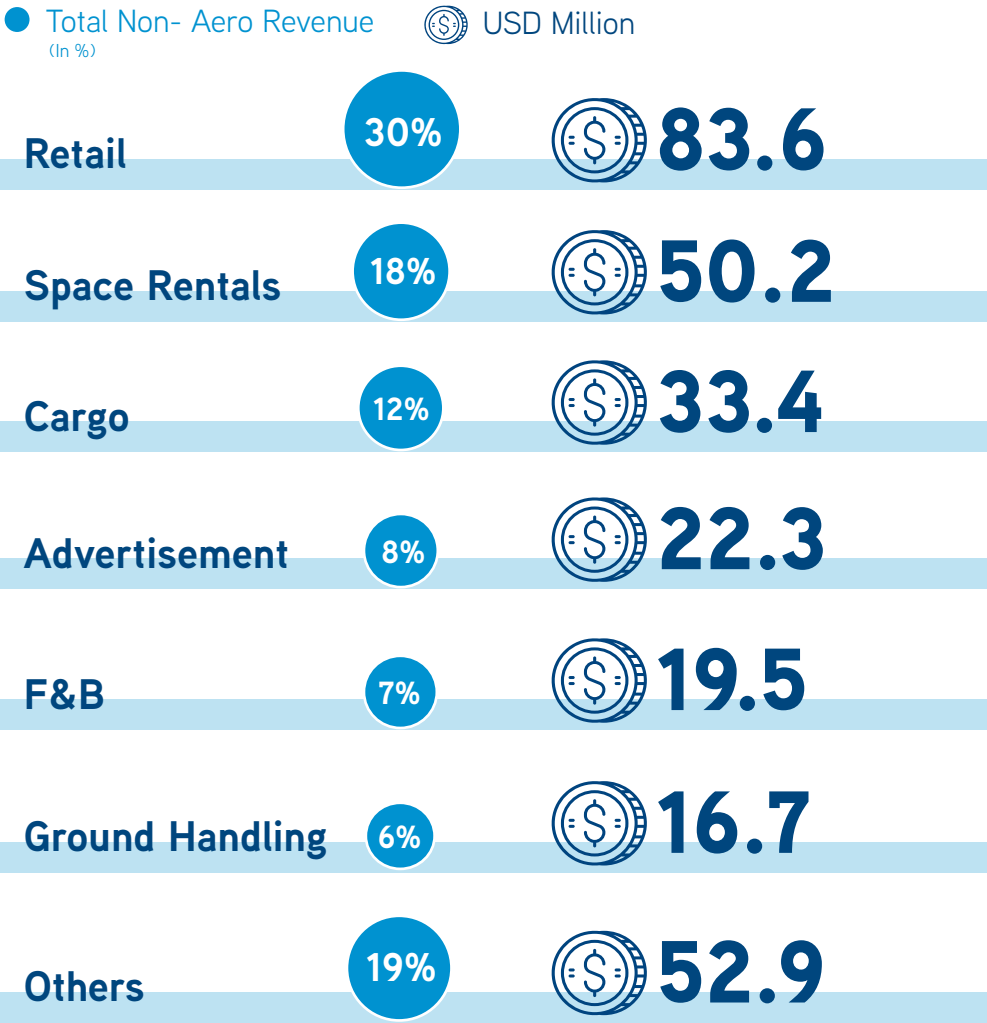
square feet (USD28 per square meter).

Similarly, Total stock of 5-star hotel rooms in Delhi is 11,550 of 43 hotels with the ARR of about INR 14500 (USD 200) per night. While, there are 7 hotels at the Aerocity with stock of 2565 five-star rooms with ARR of about INR 13300 (USD 185) per night. The Aerocity holds 22% of total 5-star category stock of the city. The hotels in Aerocity has higher occupancy rate of about 75%, comparing to 63% of overall stock of Delhi.

Due to both domestic and international connectivity to the airport and high volume of passenger traffic, there is huge demand in hotel segment. Passengers in transit, are likely to spend leisure time in shopping or recreation activities.

For FY 2019, Aero revenues, which include passenger service fee, landing and parking charges for airlines, were USD 131 Million at Delhi Airport while on other hand non-aero revenues were USD 279 million consists Retail, F&B, advertising, real estate. About 48% of non-aero revenue is from real estate.

NON-AERO REVENUE OF DELHI AIRPORT IN FY 2019



Source: Investor Presentation GMR, 2019

LANDSIDE DEVELOPMENT AT DELHI AIRPORT

- Real estate monetization at the Delhi Airport Aero city establishing new benchmarks in valuation, with Aero city poised to emerge as a new Central Business District for NCR.
- 230 acres of prime real estate land, which is part of airport estate, is available for development between Central Delhi (Current CBD) & Gurgaon (Commercial hub).
- 127 acres of land out of 230 acres of developable land is already monetized.
- Bifurcation of development across 127 acres of land is 40 acres for Hospitality project, 20 acres for Retail Project and 64 acres of land for Commercial Project.
- For second phase of real estate monetization at DIAL, Commercial development rights of about 10 million is awarded to a consortium



IMPORTANCE OF LANDSIDE DEVELOPMENT

- As the airport sector has become increasingly competitive, driven by the pricing demands of new and efficient airlines, the closure of established airlines and attractive FDI policy - the need to develop alternative revenue streams are inevitable due to strategic locations of airports in cities.
- But it is not only by offering shopping spaces, that an airport operator can increase revenues. Many innovative measures have been introduced that include hotels and convention facilities; property development; advertising; consumer services; car parking and rental services; foreign exchange; lounges; gambling; loyalty cards; and naming rights. Also, landside development include many of the below development options on vacant lands lying nearby aimed to maximize revenue.
 - Business Parks, High tech office parks
 - Hotels, Aero cities, Convention centers
 - Industrial Parks, Warehousing, SEZs
 - Club with golf course and executive resorts
 - Specialty Health care
- Focus of these developments is to increase the profitable revenue from the airport operations, while aeronautical operations are also key revenue generators for the operators. The need of the hour is to focus on non-aeronautic revenue as there is currently a huge gap between demand and supply of the non-aeronautical infrastructure.
- At present in India, a few greenfield airports are either at proposal stage or already under development. These airports have huge real estate potential due to development possibilities, ever increasing passengers and global connectivity. The development should be in line with airport ancillary industries and economic activities that can boost the regional economic growth.
- The locations of the proposed airports are located away from the cities and it requires passengers to spend more in non-aero activities i.e. stay overnight at hotels to catch early morning flights or spends on retail would proportionately increase in context to passenger spending more time at the terminal.

PROPOSED AIRPORTS

Most of the airport lands are on leasehold tenure. The planning and norms of development should consider the interest of investors participating in developing airport real estate. Also, the development should be proposed in such a way that it achieves the highest satisfaction level of passengers traveling, this may assure the maximum revenue from the real estate developed. The overall development should consider new asset classes, occupiers and type of developments - required to act as a catalyst of faster growth and urbanization. The proposed development should not be competing with the existing economy of the respective city nor affecting the life of local stakeholders and businesses in negative way.



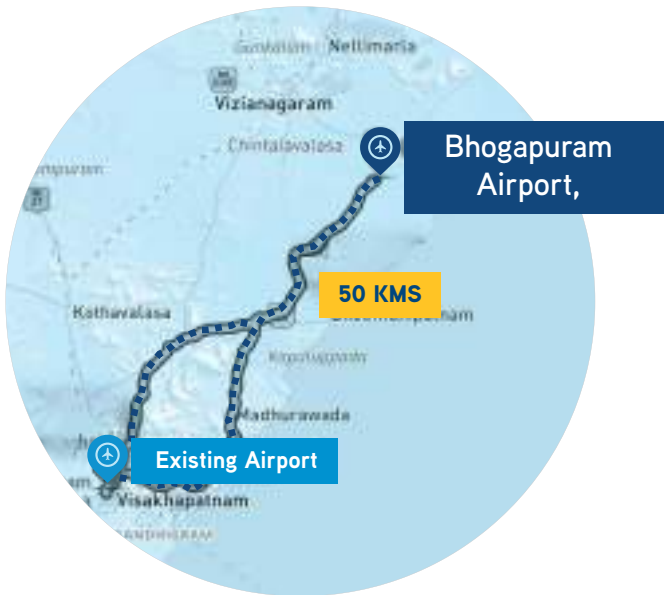
JEWAR AIRPORT, UTTAR PRADESH







NAVI MUMBAI INTERNATIONAL AIRPORT, MAHARASHTRA



MOPA AIRPORT, GOA



BHOGAPURAM AIRPORT, ANDHRA PRADESH

| | | PRIMARILY SERVES TRAFFIC OF | DISTANCE FROM CITY CENTER | NUMBER OF PROPOSED RUN-WAYS | AREA OF TERMINAL BUILDING | COMPLETION DATE ESTIMATED | TOTAL PASSENGER CAPACITY | ESTIMATED REAL ESTATE REQUIRED | TOTAL LAND AREA PROPOSED |
|---|---------------------------|-----------------------------------|---------------------------------|-----------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------------|--------------------------------|
|  | JEWAR AIRPORT | NCR | 85 KMS | 8 | 0.14 MSM | 2024-25 | 30 MN | ~0.44 MSM | 1334 ACRES |
|  | NAVI MUMBAI AIRPORT | MMR | 40 KMS | 2 | 0.25 MSM | 2023-24 | 60 MN | ~0.8 MSM | 1160 ACRES |
|  | MOPA AIRPORT | GOA | 35 KMS | 1 | 0.06 MSM | 2023-24 | 13 MN | ~0.04 MSM | 232 ACRES |
|  | BHOGAPURAM AIRPORT | VIZAG | 60 KMS | 1 | 0.027 MSM | 2024-25 | 18 MN | ~0.07 MSM | 2200 ACRES |

The airport operator needs to plan real estate considering the present as well as future demand. The ultimate objective of revenue maximization can be achieved by assessing the development quantum required and positioning. There should be land reserved for future expansion as well.

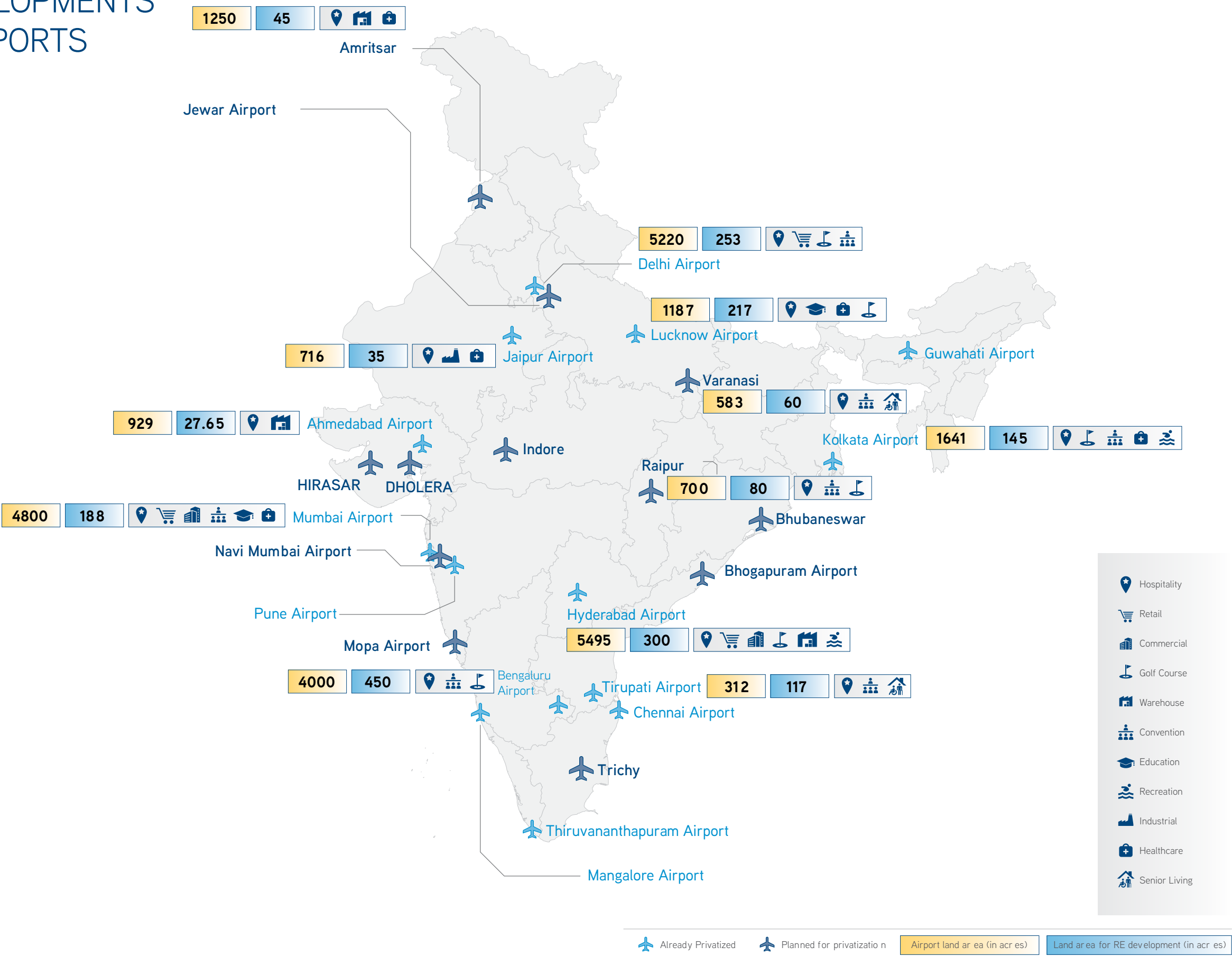
LANDSIDE DEVELOPMENTS IN EXISTING AIRPORTS

In 2019, Government of India allotted six airports to a private operator to maximize the revenue, these were Ahmedabad, Jaipur, Lucknow, Guwahati, Thiruvananthapuram and Mangalore. A further six more airports are now selected for privatization, Amritsar, Varanasi, Bhubaneshwar, Trichy, Indore and Raipur.

The focus of these airports is to increase the non-aeronautical revenue from the airport operations i.e. advertising, retail concession, parking and landside developments. The new operators will probably have responsibilities of day to day management of these airports and the ability to earn revenue from aeronautical as well as non-aeronautical activities.

The operator needs to understand the demand generated from the respective airport to develop real estate with the right model that can get maximum revenue with the highest and best use of the property.

Airports have access to lands that are not intended to be used for aeronautical activities. These lands are used for parking, roads, transit and other infrastructure related activities. Also, certain lands are used to cater for the demands generated from the airport passengers such as for Hospitality development, retail development, Warehousing or commercial activities.



FUTURE OF AIRPORT DEVELOPMENT

While there are many compelling reasons for private players to get into the airport development and management, there exists pitfalls in some areas. India has seen the full cycle of airport privatization though PPP framework. The very first privatization that started with Delhi and Mumbai airports are still facing various challenges, which was not envisaged originally. Both airports have prime land and immense development potential, which Delhi has been able to monetize partially but Mumbai could not make any gain from the development potentials of nearly 100 acres of land. There are various challenges related to the development of Land around airports. Apart from the regulatory loopholes, there are various local factors which typically effect the infrastructure players such as airport operators. Thus the development of real estate around the airport remains a tricky business which requires very thoughtful introspection and the right strategy. While the Non-Aero Revenue gives a big push to airport operators, understanding of the host city and its socio-economic fabrics, particularly for the non-metro airports is critical to derive the most from airport related real estate opportunities.

Looking at the present context, the aviation industry is heavily affected due to the pandemic. The global forecast of IATA suggests that the aviation industry may not come back to Year 2019 level, earlier than Year 2023. Additionally, the post COVID projections are lowered by about 17% comparing to pre-COVID projections. IATA predicts that the difference of projections shall gradually decreased for next 10-12 years by almost 8-9%. The Indian economy may suffer with further losses due to reduced tourism, lower GDP, restrictive travel, selective international departures, controlled disposable expenses by the consumers and average occupancy of flights.

Indian aviation industry is no different and it will also have impact of the COVID pandemic. The target of reaching 1 billion travelers by year 2030 may get deferred by couple of more year. The airport projects and privatization of airports RFPs are likely to be delayed by 3 to 5 quarters or more. The participation in the privatization of airports may be impacted as well and Government should add in more non-aero revenue assets to make the privatization proposition feasible for bidders. If at all the vaccines are available in 2021, the number of business travelers may still be at reduced level due to new corporate travel policies and videoconferencing.

The operators need to focus more on non-aero revenue. Not only in the terminal but also understand the overall regional context of airport by developing ancillary real estate i.e. logistic parks, smart warehousing, industry specific clusters like textile parks, film cities, institutes, healthcare. These developments should not just only be dependent upon the passenger traffic of airport but also with reference to inherent demand generated from the respective cities.

The authorities should adopt more practical approach while searching for private operators. They need to share the risk equally with private partner by emphasizing more on revenue share rather than upfront premium. More innovative models need to be developed with longer tenure. Additional lands for real estate development to increase non-aero revenue could be a catalyst for bidding by the operators.

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