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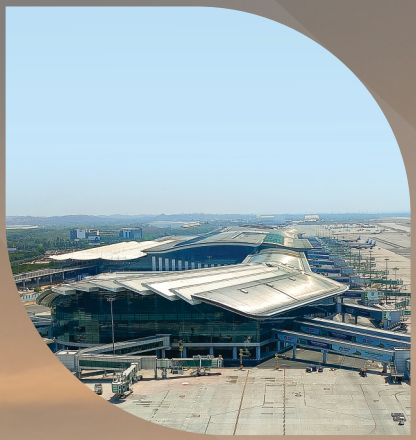
# Study on Estimating the Economic Impact of the Rajiv Gandhi International Airport, Hyderabad

## December 2025





# Study on Estimating the Economic Impact of the Rajiv Gandhi International Airport, Hyderabad

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NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

*Published by*
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The findings, interpretations, and conclusions expressed are those of the authors and do not necessarily reflect the views of the Governing Body of NCAER.

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## Foreword

It is heartening to introduce this landmark study, "Estimating the Economic Impact of the Rajiv Gandhi International Airport, Hyderabad," conducted by the National Council of Applied Economic Research (NCAER). This report comes at a defining time for Telangana, as our state continues to set benchmarks in progress, innovation, and inclusive growth.

The Rajiv Gandhi International Airport stands as a testament to Telangana's commitment to world-class infrastructure and global connectivity. Since its launch, RGIA has transformed Hyderabad into a leading aviation hub and a powerful driver of economic development. The study's findings show a remarkable growth in the RGIA ecosystem, which includes the airport and Aerocity developments, since its inception.

Looking ahead, RGIA has the potential to surpass 100 million passengers handling capacity annually, making it one of the largest airports in the world and a true gateway connecting Telangana and India to global destinations.

These achievements go beyond numbers. They reflect new opportunities, improved livelihoods, and a stronger foundation for our people. RGIA's pioneering initiatives, such as e-boarding and India's first digital twin powered Airport Predictive Operations Centre, have set new standards in efficiency and passenger experience. Its robust cargo, pharma, and aerospace facilities have established Hyderabad as a leader in trade, logistics, and life sciences, further enhancing our state's appeal to investors.

This study also highlights the value of collaboration among government, industry, and citizens. The rigorous and inclusive approach taken by NCAER and all stakeholders embodies Telangana's spirit of innovation and resilience.

As the Chief Minister, I reaffirm our government's dedication to fostering sustainable growth, technological advancement, and shared prosperity. RGIA's journey is a testament to what vision, investment, and partnership can achieve. I am confident that the insights from this report will guide our collective efforts as we shape the next chapter of Telangana's growth.

Let us continue to work together to keep Telangana at the forefront of India's economic transformation, with RGIA as a symbol of our shared aspirations.

(A REVANTH REDDY)

# PREFACE

The National Council of Applied Economic Research (NCAER) has been actively conducting in-depth studies on airports and their economic impact in India for several years. Through these sustained research efforts, NCAER has consistently provided valuable insights into how airport infrastructure contributes to both regional development and national economic growth. The findings from these studies have informed policy discussions, guided infrastructure planning, and highlighted the role of aviation as a catalyst for broader economic activity.

In this context, I am pleased to present this comprehensive study on the economic impact of the Rajiv Gandhi International Airport (RGIA), Hyderabad. Airports are not merely gateways for the movement of people and cargo; they serve as powerful engines of growth, driving employment, stimulating trade, promoting tourism, and attract investments. This report provides a detailed assessment of RGIA's contributions to both the regional as well as national economy, highlighting its vital role as a driver of socio-economic development.

Over the years, RGIA has emerged as one of India's most dynamic airports, consistently raising the bar for new benchmarks and innovations, operational efficiency, and passenger experience. From pioneering e-boarding for domestic passengers to introducing India's first fully integrated digital twin-powered Airport Predictive Operations Centre, RGIA has demonstrated how technology and foresight can transform the aviation ecosystem.

The findings of this study underscore the scale of RGIA's contributions. In 2024–25 alone, the RGIA ecosystem—including airport operation and Aerocity—generated an estimated Gross Value Added, encompassing direct, indirect and induced effects, of nearly Rs. 75,314 crore and supported over 411,000 jobs. Even more impressive is its projected growth trajectory: by 2037-38 the total economic impact is expected to exceed Rs. 2.1 lakh crore with employment set to reach nearly 982,000 by 2037–38. These numbers represent more than just statistics, they signify enhanced livelihoods, improved opportunities, and a stronger foundation for the economy of Telangana and India as a whole.

The rigorous methodology adopted in the study combines primary and secondary data with robust input–output modelling. The results provide valuable insights for policymakers, industry stakeholders, and researchers, and will serve as an important resource in shaping the future of aviation-led economic development in the country.

On behalf of the NCAER study team, I extend my appreciation to all those who contributed to this study and to all stakeholders who continue to support the growth and innovation of India's aviation sector. RGIA's journey is a powerful example of what vision, investment, and partnership can achieve, and I am confident that it will continue to be a transformative force in India's growth story in the years to come.

I also wish to commend the dedicated efforts of the NCAER team led by Dr Poonam Munjal in carrying out this study. The other core team members of the study team were Dr Palash Baruah and Ms Yashika Khattar.

**Anil K. Sharma**
Secretary and Operations Director
National Council of Applied Economic Research

# ACKNOWLEDGEMENTS

The successful completion of the "Study on Estimating the Economic Impact of the Rajiv Gandhi International Airport, Hyderabad" would not have been possible without the unwavering support, guidance, and contributions of several key individuals and institutions. On behalf of the entire study team, we extend our heartfelt gratitude to all who have played an important role in this endeavor.

We would like to begin by expressing our sincere thanks to Mr. Pradeep Panicker, Chief Executive Officer – GHIAL, for giving NCAER the opportunity to undertake this important research study. We also extend our special thanks to Mr. Kadhir Kadhiravan, Deputy Chief Executive Officer – GHIAL, and Mr. Anand Kumar Polamada, Chief Finance Officer – GHIAL, for their continuous encouragement and support throughout the course of the study.

Our deepest appreciation also goes to Mr. Gujjar Sri Krishna Chaitanya, Mr. Manish Satyanarayan Narisetti, Mr. Ashish Kumar, Mr. Srinivas Mantha, Mr. Rama Rao S, Mr. Sathwik Naidu, and Mr. Navneet Kumar. Their invaluable insights, expert advice, and consistent interaction with our team—whether in sharing data, providing conceptual clarity, or guiding the enumeration of activities—greatly enriched the quality and comprehensiveness of our work. Their constant engagement was instrumental in ensuring the relevance and robustness of the research outcomes.

We would also like to acknowledge with gratitude the support of Dr. Poonam Gupta, former Director General of NCAER, for reposing her faith in the study team and extending valuable suggestions and encouragement at every stage of the project. We are equally thankful to Dr. Anil Kumar Sharma, Secretary and Operations Director at NCAER, for his consistent support that enabled the smooth execution of this study.

Finally, we gratefully recognize the collective efforts of all stakeholders and contributors, whose commitment made this study both possible and meaningful.

**Study Team**
National Council of Applied Economic Research

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# EXECUTIVE SUMMARY

## About the Study

Transport systems are vital for connecting people, goods, and services, forming the backbone of global socio-economic progress. Among various modes, aviation has revolutionized connectivity by offering unmatched speed, safety, and reliability. The Ministry of Civil Aviation (MoCA) has identified India as one of the fastest-growing aviation markets worldwide, with its passenger traffic showing a significant growth. The domestic passenger traffic rose from 61 million in FY14 to 154 million in FY24; and international traffic from 43 million in FY14 to 67 million in FY24. The total passenger traffic peaked at 220 million in FY24, marking a robust recovery and surpassing pre-pandemic levels. Total cargo traffic also increased from 1.77 million metric tonnes in FY14 to 2.37 million metric tonnes in FY24.

The Rajiv Gandhi International Airport (RGIA), Hyderabad, has emerged as a key player in India's aviation sector. Managed by GMR Hyderabad International Airport Limited (GHIAL), RGIA has been instrumental in driving regional connectivity, fostering economic development, and promoting job creation. RGIA was the first airport in India to introduce e-boarding for domestic passengers and continues to set benchmarks with its cutting-edge technology. In December 2024, RGIA became the first Airport in India to have end-to-end fully integrated digital twin powered Airport Predictive Operations Centre (APOC) that covers Terminal, Landside and Airside.

The present study aims to estimate the economic benefits of RGIA, Hyderabad, by capturing its direct, indirect as well as induced impact on the state and national Gross Value Added (GVA) and employment (number of jobs).

## Objectives of the Study

The key objective of the study is to make a comprehensive assessment of the current and the future economic impacts created from the developments at the RGIA. More specifically, the aim is to provide:

a. Comprehensive assessment of the Economic Impact of RGIA on national and state economy in terms of
   - output,
   - value added (income), and
   - employment (number of jobs)

b. Economic Impact of RGIA on state economy along with future path including income and employment patterns.

## Methodology

In this study, the economic impact of RGIA is estimated and presented in terms of its contribution to the national and state economy. The contribution is assessed with respect to output, value added and employment. This contribution can be measured in three ways, direct impact, indirect impact and induced impact.

Direct Impact - The direct impact of an airport refers to the contribution it makes to the economy due to all kinds of activities undergoing at the airport which are directly related to its operations. This is derived by summing up the values of revenue generated by the airport developer as well as all associated activities being undertaken at the airport. Similarly, total employment created at the airport is the sum of number of workers employed by each economic activity.

Indirect impact - For airport operations, the indirect impact results from the purchases of goods and services made by the directly related activities at the airport.

Induced impact - As the income of the employees increase due to the direct and indirect impact, their propensity to consume also increases. Therefore, the induced impacts are triggered by the additional expenditure incurred by the employees and their families which in turn leads to increased demand for goods and services and subsequent increase in overall economic output.

The indirect and induced impacts are derived using the Input-Output (IO) Models. Two types of multipliers are derived from the IO modes – Type I to capture indirect impact and Type II to capture induced impact.

Further, the study discusses the catalytic effects of the airport arising from the developments in the state of Telangana which are attributable to the airport. This includes the effects leading to the state's enhanced tourism, export and investment potential.

## Data Sources

The key data sources are the financial information and employment details of all establishments at the airport; the financial information of domestic airlines from DGCA Annual Reports; and financial information of GHIAL.

For the estimation of indirect and induced impact, India's IO table has been used to derive the values of multipliers.

For estimating RGIA's contribution to national and state economy the Gross Domestic Product statements of India (GDP) and Telangana (GSDP) have been sourced from the official sources, that is, Ministry of Statistics and Programme Implementation (MoSPI), Government of India; and Directorate of Economic and Statistics (DES), Government of Telangana. For state- and national-level employment, data have been sourced from the annual Periodic Labour Force Survey (PLFS) conducted by MoSPI.

## Direct Impact

To assess the direct impact, the revenues and employment generated by all the economic activities, which are directly related to the airport, were obtained for all the years from 2016-17 to 2024-25. The findings are summarised as below:

- RGIA generated the revenue of Rs 774 Cr during each year of the construction phase spanning between 2005–06 to 2007–08. This translated to the direct impact, in terms of GVA, to be Rs 464 Cr.
- In its operation phase in 2009, the revenue generated was of Rs 1844 Cr. In terms of GVA, this amounted to Rs 1106 Cr.
- Now in 2024–25, revenue generated at RGIA is estimated to have grown by over 16 times to Rs 29,995 Cr, recording a CAGR of over 20 per cent since 2009.
- The GVA is estimated to be Rs 8736 Cr for 2024-25. This translates to a CAGR of nearly 15 per cent since 2009.
- It is estimated that RGIA contributed 0.59 percent to the state GVA in 2024-25 as its direct impact. With respect to national economy, RGIA's contribution is estimated to be 0.029 percent for the same year.
- In terms of employment, RGIA is estimated to have created direct employment for 39,542 persons in 2024–25. This constitutes 0.16 per cent of total state employment and 0.005 per cent of national employment.

- RGIA also contributes to local government revenue through fiscal payments. In 2024–25, property tax payments amounted to Rs. 7.72 crore, as reported by GHIAL.

## Indirect and induced impact

Type I and Type II multipliers have been derived for all the parameters - output, GVA and employment, to derive the indirect and induced impact on these parameters respectively. These multipliers are multiplied with output, GVA and employment respectively to arrive at the combined impact. The estimates are summarised in Table 1 below:

*Table 1: Total Economic Impact of RGIA, 2024-25*

| | GVA | Employment |
|---|---|---|
| Rs. Cr | | |
| Direct | 8736 | 39,542 |
| Direct + Indirect | 32476 | 165192 |
| Direct + Indirect + Induced | 68285 | 345911 |
| % to State | | |
| Direct | 0.59 | 0.16 |
| Direct + Indirect | 2.20 | 0.68 |
| Direct + Indirect + Induced | 4.63 | 1.42 |
| % to India | | |
| Direct | 0.03 | 0.005 |
| Direct + Indirect | 0.11 | 0.022 |
| Direct + Indirect + Induced | 0.23 | 0.045 |

## Economic impact of income from Commercial Property Development

A significant component of economic impact of the airport ecosystem is due to the commercial property development, known as Airport Land Development (ALD) or GMR Aerocity region around the airport. The economic impact of ALD is derived by estimating the income and subsequent GVA generated by the developers of the assets and the tenants housed in these assets. In all, GMR Aerocity at Hyderabad is estimated to have generated the income of Rs 5950 Cr in 2024-25, which translates to the GVA of Rs. 2286 Cr for the same year. This is the direct economic impact of the Aerocity in terms of GVA generation. With regard to employment, GMR provided an estimate of employment within Hyderabad

Aerocity in each year starting from 2016-17 till 2023-24. The number of persons employed in 2024-25 is estimated to be 21,297. The total economic impact of Hyderabad Aerocity and its contribution to national and State economy for 2024-25 is presented in Table 2.

*Table 2: Total Economic Impact of GMR Aerocity, 2024-25*

| | GVA | Employment |
|---|---|---|
| Rs Cr | | |
| Direct | 2286 | 21297 |
| Direct + Indirect | 4944 | 46061 |
| Direct + Indirect + Induced | 7028 | 65475 |
| % to State | | |
| Direct | 0.16 | 0.09 |
| Direct + Indirect | 0.34 | 0.19 |
| Direct + Indirect + Induced | 0.48 | 0.27 |
| % to India | | |
| Direct | 0.01 | 0.003 |
| Direct + Indirect | 0.02 | 0.006 |
| Direct + Indirect + Induced | 0.02 | 0.009 |

Since the economic activities at the airport and in the Aerocity are independent of each other, the simple addition of their economic impact represents the consolidated economic impact of the entire airport ecosystem.

*Table 3: Consolidated Economic Impact of RGIA Ecosystem, 2024-25*

| | GVA | Employment |
|---|---|---|
| Rs. Cr | | |
| Direct | 11022 | 60839 |
| Direct + Indirect | 37420 | 211253 |
| Direct + Indirect + Induced | 75314 | 411386 |
| % to State | | |
| Direct | 0.75 | 0.25 |
| Direct + Indirect | 2.54 | 0.87 |
| Direct + Indirect + Induced | 5.11 | 1.69 |
| % to India | | |
| Direct | 0.04 | 0.008 |
| Direct + Indirect | 0.12 | 0.028 |
| Direct + Indirect + Induced | 0.25 | 0.054 |

## Future Projections

Future projections have been made for direct, indirect and induced economic impact using the projected passenger data. The projections also take into account the impact of capital expenditure (capex) for expansion of the airport and also general capex required for regular operations of the airport. The value of planned expansion capex during FY26-FY33 is Rs 12,340 Cr and general capex till 2037–38 is about Rs 4128 Cr. Following are the key results-

- RGIA Airport's total traffic is projected to be around 88 million by FY38. This translates into an overall compound annual growth rate (CAGR) from FY25–FY38 of 8.8 per cent.
- With respect to freight, the overall CAGR for the forecasted period (FY25 to FY38) is estimated to be 8.4 per cent led by demand for freight capacity of 517.7 thousand metric tons in the year FY38.
- The direct GVA including the increase due to capital expenditure is estimated to be Rs. 19,509 Cr by 2037-38.
- The total impact, including the direct, indirect and induced impact, is projected to grow from Rs 68,285 crores in 2024-25 to Rs 1,52,496 crores in FY 38 highlighting RGIA's crucial role in regional and national economic growth.
- The aerocity is estimated to add another Rs. 7028 Cr in 2024-25 as its total impact after including direct, indirect as well as induced effects. This is estimated to increase to Rs. 60,851 Cr. by 2037-38.
- Consequently, the direct, indirect and induced impact of RGIA ecosystem is estimated to be Rs 2,13,347 Cr by 2037-38
- With respect to employment, the direct employment at RGIA is expected to increase from 39,542 in 2024-25 to 90,701 in 2037-38. When considering indirect and induced effects too, total employment is expected to increase from 3,45,911 in 2024-25 to 7,93,442 in 2037-38.
- Total employment at aerocity including direct, indirect and induced employment is expected to increase from 65,475 in 2024-25 to 1,88,566 in 2037-38. Adding this, the total employment including the direct, indirect and induced employment of RGIA ecosystem is expected to increase to 9,82,008 by 2037-38.

# 1. INTRODUCTION

## 1.1 Context

Transport systems are vital for connecting people, goods, and services, forming the backbone of global socio-economic progress. Among the various modes available, aviation has revolutionized connectivity by offering unmatched speed, safety, and reliability. Its role in driving global integration and fostering economic growth is unparalleled.

The resilience of the aviation industry was evident in 2022, as reported by the International Civil Aviation Organization (ICAO),[1] which highlighted significant growth in global air travel. Approximately 3.3 billion passengers were carried on scheduled services in 2022, reflecting a substantial 42.8 per cent increase compared to 2021. This number grew further to 4.3 billion in 2023[2]. This surge in passenger numbers underscored the sector's robust recovery from the disruptions caused by the COVID-19 pandemic. Flight departures rose to 29.8 million, marking a 23.1 per cent growth from the previous COVID year of 2021[1]. The total Revenue Passenger-Kilometres (RPKs)—a measure of passenger traffic—jumped by 62.3 per cent, reaching 5,889 billion RPKs which shows a quick recovery from the disruptions caused by COVID. Notably, international scheduled passenger traffic saw an extraordinary rebound, with a 151.7 per cent increase in RPKs, while domestic traffic recorded a more moderate 9.8 per cent growth. In terms of capacity, Available Seat-Kilometres (ASK) expanded by 40.4 per cent, achieving a passenger load factor of 78.3 per cent, which reflects an effective utilization of available seats. These figures collectively underscore the aviation sector's critical role in meeting the resurgence in travel demand, both domestically and internationally.

The Air Transport Action Group (ATAG)[3] estimates that the air transport industry supported a total of 86.5 million jobs globally in 2023, including direct, indirect, induced, and aviation-enabled tourism jobs. Among these, 11.6 million jobs were directly provided by the air

[1] https://www2023.icao.int/sustainability/WorldofAirTransport/Pages/the-world-of-air-transport-in-2022.aspx

[2] https://www2023.icao.int/sustainability/WorldofAirTransport/Pages/the-world-of-air-transport-in-2023.aspx

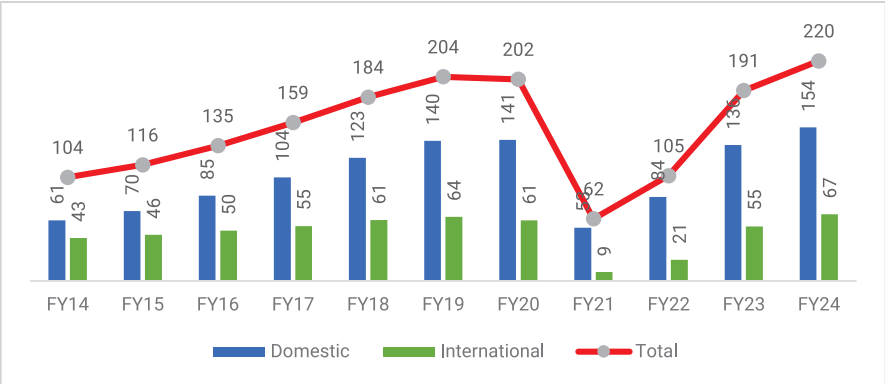
[3] https://atag.org/facts-figures

transport industry, underscoring its critical role in global employment and economic development.

These statistics reflect a robust recovery in the aviation sector following the disruptions caused by the COVID-19 pandemic, indicating a resurgence in both domestic and international travel demand.

In India, aviation has been a cornerstone of economic progress, enabling businesses to access domestic and international markets and driving tourism growth. The Ministry of Civil Aviation (MoCA) has identified India as one of the fastest-growing aviation markets worldwide.

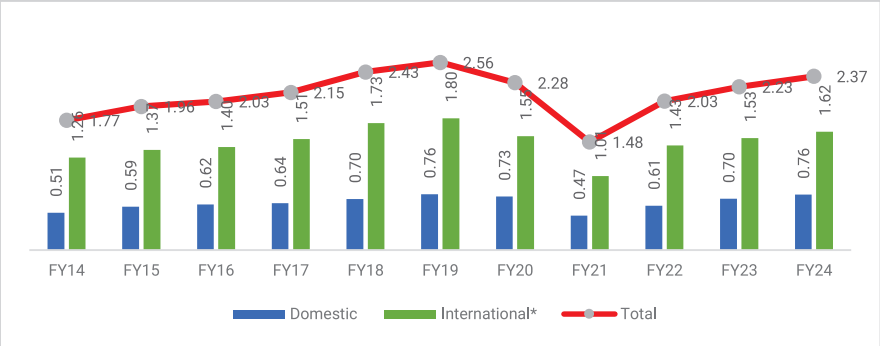
***Figure 1.1: Passenger traffic carried by scheduled carriers over last ten years (in million)***




*Source: Handbook on Civil Aviation Statistics, 2023-24, Directorate General of Civil Aviation*

Passenger traffic has seen significant growth over the period, except for FY21 and FY22, which witnessed sharp declines due to the COVID-19 pandemic (Figure 1.1) Domestic passenger traffic rose from 61 million in FY14 to 154 million in FY24, reflecting consistent growth. International traffic also increased, albeit at a slower pace, from 43 million in FY14 to 67 million in FY24. The total passenger traffic peaked at 220 million in FY24, marking a robust recovery and surpassing pre-pandemic levels.

***Figure 1.2: Cargo traffic carried by scheduled carriers over the last ten years (million metric tonne)***




*Source: Handbook on Civil Aviation Statistics, 2023-24, Directorate General of Civil Aviation*
**International Cargo figures include Freight only.*

Total cargo traffic increased from 1.77 million metric tonnes in FY14 to 2.37 million metric tonnes in FY24, showcasing steady growth, except for a dip in FY21 due to the pandemic's impact on global trade (Figure 1.2). Domestic cargo traffic rose modestly from 0.51 million metric tonnes in FY14 to 0.76 million metric tonnes in FY24, reflecting gradual expansion in domestic logistics. International cargo, which consistently forms a larger share, grew from 1.26 million metric tonnes in FY14 to 1.62 million metric tonnes in FY24, driven by the recovery in global trade flows and e-commerce demand. The rebound in FY22 and subsequent growth in FY23 and FY24 highlight the resilience and adaptive capacity of the cargo sector, emphasizing its critical role in supporting economic activity and trade.

The Rajiv Gandhi International Airport (RGIA), Hyderabad, has emerged as a key player in India's aviation sector. Managed by GMR Hyderabad International Airport Limited (GHIAL), RGIA has been instrumental in driving regional connectivity, fostering economic development, and promoting job creation. The airport has consistently embraced innovation to enhance passenger experience and operational efficiency. RGIA was the first airport in India to introduce e-boarding for domestic passengers and continues to set benchmarks with its cutting-edge technology. In December 2024, RGIA became the first Airport in India to have end-to-end fully integrated digital twin powered Airport Predictive Operations Centre (APOC) that covers Terminal, Landside and Airside. The APOC leverages advanced technologies like artificial intelligence (AI) and machine learning to streamline operations and pre-empt potential disruptions. This will revolutionize airport operations and transform the passenger experience.

## 1.2 Objectives of the Study

The key objective of the study is to make a comprehensive assessment of the current and the future economic impacts created from the developments at the RGIA. More specifically, the aim is to provide:

a. Comprehensive assessment of the Economic Impact of RGIA on national and state economy in terms of

- output,
- value added (income), and
- employment (number of jobs)

b. Estimate the Economic Impact of RGIA on state economy along with future path including income and employment patterns.

## 1.3 Review of Literature

Several studies on economic impact assessment of international airports have been conducted across the world. Some of the studies with similar capacity in terms of million passengers per annum have been reviewed and are discussed in this section.

Newark Liberty International Airport (EWR) is a cornerstone of economic activity within the New York-New Jersey metropolitan region. In terms of passenger traffic, EWR reached a historic peak in 2019 with 47.5 million passengers.[4] However, the airport's resilience became particularly evident in 2023, when passenger volumes not only rebounded to pre-pandemic levels but surpassed them, exceeding 49 million travellers. The airport is estimated to contribute USD 29.3 billion annually to the local economy. The airport supports a vast employment network, directly generating over 137,000 jobs. Beyond its immediate workforce, EWR also plays a pivotal role in driving key industries such as logistics, tourism, and commerce, with these sectors collectively generating nearly USD12.5 billion in annual wages (Port Authority of New York and New Jersey, 2023).

Copenhagen Airport (CPH), the largest airport in Denmark, plays a pivotal role in the nation's economy, providing full-time employment to over 2,170 individuals directly[5]. Over its impressive 90-year-old history, CPH has consistently demonstrated growth,

[4]https://www.ewrredevelopment.com/wp-content/uploads/2024/10/EWRVisionPlanFinalDraft.pdf

[5]https://www.cph.dk/48cf35/globalassets/8.-om-cph/04_investor/arsrapporter/1997-2017/en/facts--figures-2014.pdf

surpassing 25 million passengers in 2014—marking the fourth consecutive year of record passenger traffic. In 2014, the broader workforce supporting airport operations expanded significantly, with more than 23,000 people employed across over 700 companies based at the airport. The increase in passenger traffic in 2014 had a direct impact on employment, leading to a 2.3 per cent rise in full-time equivalent (FTE) employees and a 2.7 per cent growth in the total number of individuals employed. In financial terms, CPH reported a DKK 233 million increase in consolidated revenue, reaching DKK 3,867.5 million.

Boston Logan Airport plays a vital role in supporting the freight and transportation systems of metropolitan Boston and New England, highlighting its substantial economic importance. As of 2016, the Airport provided direct employment to more than 17,000 individuals, including approximately 1,200 administrative staff under Massport (The Massachusetts Port Authority)[6]. Additionally, it indirectly and directly supported around 132,000 jobs across various industries, contributing a remarkable USD 13.3 billion annually to the local economy through airport operations, construction activities, tourism-related income, and associated multiplier effects. Over the preceding five years, the introduction of new international flight routes significantly boosted the local economy, adding over USD 1.3 billion annually and generating USD 49 million in new tax revenues through sales and income taxes. The region around the Airport demonstrates robust economic growth, creating a symbiotic relationship in which regional development fuels airport operations, while the Airport further stimulates economic progress. This dynamic is especially evident in the international passenger market, which grew by 19 per cent between 2015 and 2016, rising from 5.5 million to 6.6 million passengers, driven by Boston's economic strength and its appeal as a leading origin-and-destination (O&D) hub.

In 2023, London Gatwick contributed GBP 5.5 billion to the UK economy and supported over 76,000 jobs, nearing pre-pandemic levels[7]. A significant portion of this economic impact was concentrated in six local authority areas across the South East, including West Sussex, East Sussex, Surrey, Kent, Brighton and Hove, and Croydon. The proposed GBP 2.2 billion Northern Runway project has the potential to create 14,000 jobs and inject GBP 1 billion into the economy annually.

With nonstop flights and service from numerous passenger carriers, MCO Orlando

[6]https://www.massport.com/sites/default/files/2023-10/2016_loganairport_edr_executivesummary.pdf

[7]https://aerospaceglobalnews.com/news/airport-economic-zone-to-drive-growth-in-gatwick-region/#:~:text=Gatwick%2C%20already%20a%20key%20economic,of%20our%20businesses%20and%20communities.%E2%80%9D

International Airport is the busiest airport in Florida and the sixth busiest in the United States. With an economic impact of almost USD 41 billion, MCO is a significant contributor to the state's economic activities. That is more than any other airport in the state of Florida. According to the most recent Florida Statewide Aviation Economic Impact Study, MCO supported almost 343,000 jobs, the most in any state.

The economic effect of Orlando International was assessed to be $31 billion at the time of the study's most recent completion in 2014. The 31% rise is comparable to MCO's record-breaking yearly passenger volume of about 48 million. With an annual economic impact of around $623 million, Orlando Executive Airport is ranked among the best general aviation airports in the state by the latest report.

Munich Airport has a complicated economic influence on the area. Munich Airport employs over 38,000 people, making it one of the biggest workplaces in the area. Each year, the airport and the businesses on campus provide value added worth several billions of euros.

The economic and social advantages of Sydney Airport, which handled more than 44 million passengers in 2018, were assessed in 2018 research conducted by Deloitte Access Economics. It was discovered that the airport produces or offers:

- Employment: There are 338,500 direct and indirect jobs (or 10.1% of all occupations in NSW), including about 33,000 direct jobs at the airport.
- Economic activity: $38.0 billion in direct and indirect economic contribution, or 2.2% of the Australian economy and 6.8% of the NSW economy, as well as household income. $19.9 billion in direct and indirect contributions.

Additionally, the analysis showed that as the airport grows, its economic contribution will rise. By 2039, it is predicted that the airport would have created or supported over $52 billion in economic activity and more than 414,000 jobs overall.

According to the report, an average new daily international service to Sydney creates 1,300 direct and indirect jobs and provides an estimated $122 million to the economy annually.

*Table 1.1 – Employment and economic contribution of airports*

| Airport | Employment (Direct and Indirect) | Annual Economic Contribution (in billion) | Passenger Traffic (in million) |
|---|---|---|---|
| Boston Logan Airport, 2014 | 132000 | 13.3 USD | 31.6 |
| MCO Orlando international Airport, 2014 | 343000 | 31.0 USD | 48.0 |
| Sydney Airport, 2018 | 338500 | 38.0 AUD | 44.0 |
| London Gatwick, 2023 | 76000 | 5.5 GBP | 19.9 |
| Newark Liberty International Airport, 2023 | 137000 | 29.3 USD | 47.5 |

*Source: NCAER Review of Literature*

## 1.4 Structure of the Report

The report is organised as follows. The present chapter includes the context, objectives of the study and presents a review of similar studies at the international and national level. Chapter 2 gives a snapshot of the Hyderabad City, where RGIA is located, covering its general profile, demography, tourism, economic and infrastructure profiles. Chapter 3 elaborates on details of Hyderabad airport and its services. Chapter 4 presents the methodology to estimate the direct economic impact of the airport on the national and state economies. This chapter also presents the methodology to estimate the indirect and induced economic impacts. Chapter 5 quantifies the direct, indirect, and induced economic impacts of the airport and presents its share in the state and national economies. The projections of passenger traffic, freight traffic, and economic contribution up to FY38 are presented in Chapter 6. Chapter 7 presents the qualitative impact of RGIA which has been assessed through the Key Informant Interviews with the top-management of some of the companies located in Hyderabad.

# 2. HYDERABAD – the city of pearls

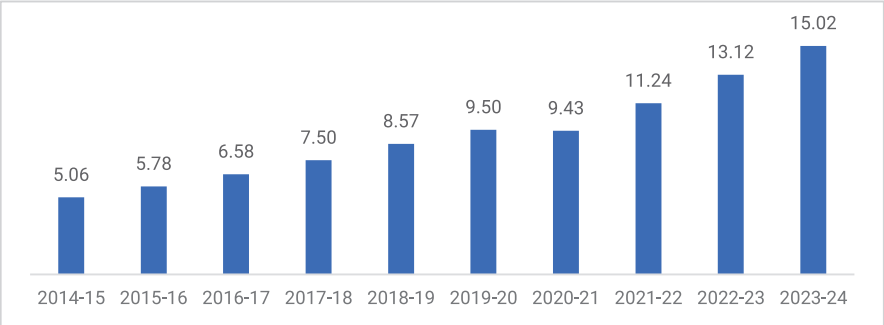
Rajiv Gandhi International Airport (RGIA), also known as Hyderabad International Airport, is situated in Shamshabad, which is a census town in the state of Telangana. Shamshabad is located about 24 kilometres south of downtown Hyderabad and falls in Ranga Reddy district. Owing to the airport's importance to the host state, Telangana, and to both the host districts, Hyderabad and Ranga Reddy, this chapter presents the economic profile of all of these, and also general profile of Hyderabad city to which the airport primarily serves.

## 2.1 Economic Profile – Telangana

### Gross Domestic Product

Telangana was carved out of the state of Andhra Pradesh as the 29th state of India on June 2, 2014. The size of its economy has been growing at a fast rate since its inception, with its nominal Gross Domestic Product (GDP) attaining a three-fold increase in 2023–24 from its level in 2014–15 (Figure 2.1). Telangana is the ninth largest economy among all the states and union territories, with its GDP recorded at Rs 15.02 lakh crore in 2023–24, as per the latest estimates available with the Ministry of Statistics and Programme Implementation (MoSPI).

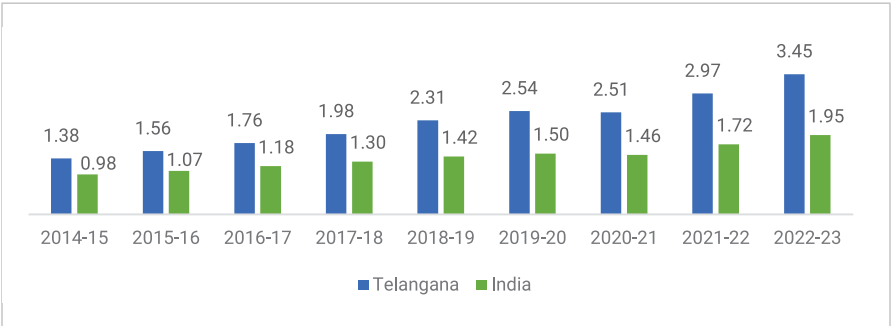
*Figure 2.1: Telangana GDP (Rs lakh crore)*




*Source: Ministry of Statistics and Programme Implementation, GoI*

With respect to its per-capita income, presented as per-capita GDP, the state has consistently been above the national average. The divergence between state and India's per-capita GDP has been increasing (Figure 2.2) as the former was 1.4 times that of latter in 2014-15 but is now close to double the national average. This reflects the state's robust economic performance, driven by sectors such as information technology, pharmaceuticals, and services, which have contributed to high income levels.

***Figure 2.2: Per-capita income—Telangana vs India (Rs lakh)***



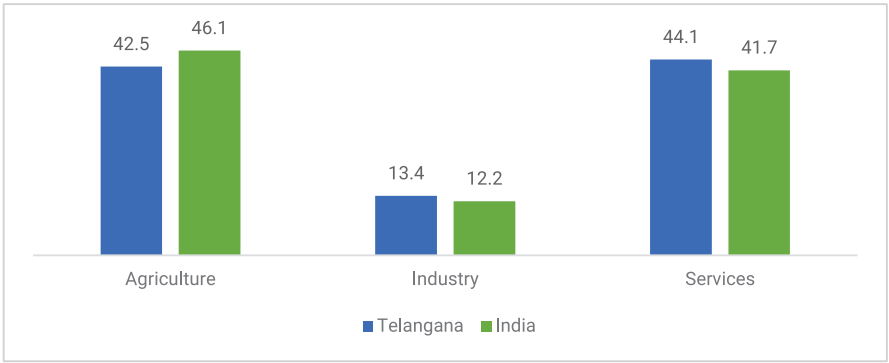

*Source: Ministry of Statistics and Programme Implementation, GoI*

## Employment

However, the employment profile of the state is similar to that of India's at broad sectoral level. As per the latest Periodic Labour Force Survey (PLFS), 2023–24, conducted by MoSPI, a significant majority of the workforce (44.1 per cent and 42.5 per cent) is employed in the Services and Agriculture sector respectively in Telangana, with a smaller portion working in Industry sector (13.4 per cent). In case of India, 46.1 per cent of people are employed in agriculture and another 41.7 per cent in services (Figure 2.3).

The PLFS data also shows that the state's worker participation rate (WPR) is slightly higher, at 59.2 per cent, as against national average WPR of 58.2 per cent.

*Figure 2.3: Employment across broad sectors of economy - Telangana and India (% share)*




*Source: Ministry of Statistics and Programme Implementation, GoI*

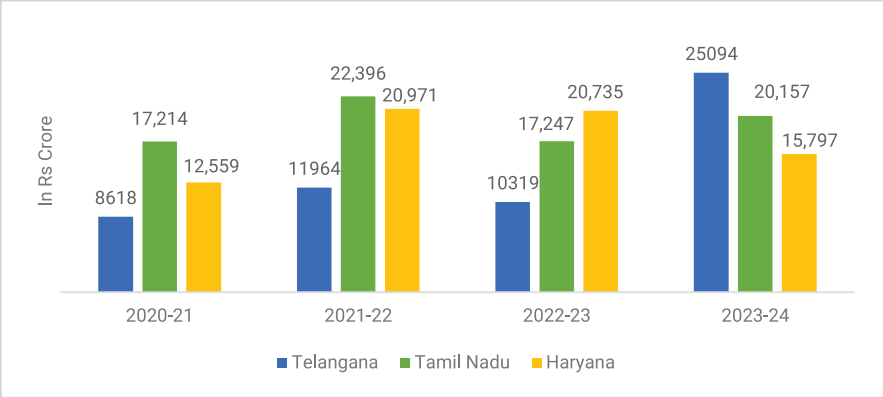
## Foreign Direct Investment

Foreign Direct Investment is one of the major drivers of growth in the present period of globalization. Foreign Direct Investment (FDI) raises the investment in the host country, and through the multiplier effect leads to increment in employment, income, and savings (Keshava, 2014)[8]. FDI inflows also leads to development in the host country by providing latest machinery, state of the art technology, managerial know how. FDI fosters competition by widening choices to the consumers and compelling companies to prioritize quality enhancement. The competition brought by FDI inflow breaks up domestic monopolies and facilitates price reductions, thereby promoting economic efficiency and consumer welfare. FDI also contributes to corporate tax revenue of the host economies.

Among the Indian states, Telangana is one of the major attractors of FDI inflows. The state is host to several Fortune 500 companies and serves as prominent centre for key information technology and life science, in its capital city of Hyderabad. This is despite it being one of the youngest states in India, formed in 2014. Among the states with comparable investments are Tamil Nadu and Haryana. Telangana attracted an FDI of around Rs 8600 crore in 2020–21 which was lesser than that in the states of Tamil Nadu and Haryana. However, post 2020–21, there has been a significant growth of FDI in Telangana and it surpassed the FDI inflow of both Haryana and Tamil Nadu in 2023-24.

[8] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4339322

*Figure 2.4: FDI inflow in Telangana 2020–21 to 2023-24*




*Source: FDI Statistics, Department for Promotion of Industry and Internal Trade (DPIIT)*

The FDI to Telangana stood at Rs 25,094 Cr in 2023–24, recording an impressive growth of about 143 per cent over the level a year ago (Figure 2.4). The state attracted investments worth Rs 2.60 trillion (31.23 US billion dollars) in industries from 2014 to 2023 due to the state's industrial policy known as TS-iPASS (Cyrill, 2023)[9]. The Telangana State Industrial Project Approval and Self Approval and Self Certification System (TS-iPASS) is an industrial clearance system beyond the traditional single window system in the state of Telangana and is aimed to enhance the ease of doing business in the state.

The FDI to the IT sector in Telangana has shown exponential progress in the current financial year. The IT sector in the state is a major source of employment with over 1500 companies providing employment to over 5.8 lakh professionals (Deccan Chronicle, 2024). The government is collaborating with major IT firms to push AI growth and gradually establish the city of Hyderabad as the AI capital in India. The state government has launched Telangana AI City, a 200-acre hub for AI innovation.

The city of Hyderabad in Telangana is a major hub for pharmaceutical and life sciences industries in Asia, with over 200 companies employing 20,000 sectoral professionals. As of 2024, the pharma and life sciences sector in Hyderabad has attracted 900 greenfield-investment (a type of FDI where a company establishes operations in a foreign country) projects, with a value of approximately 2 billion US dollars.

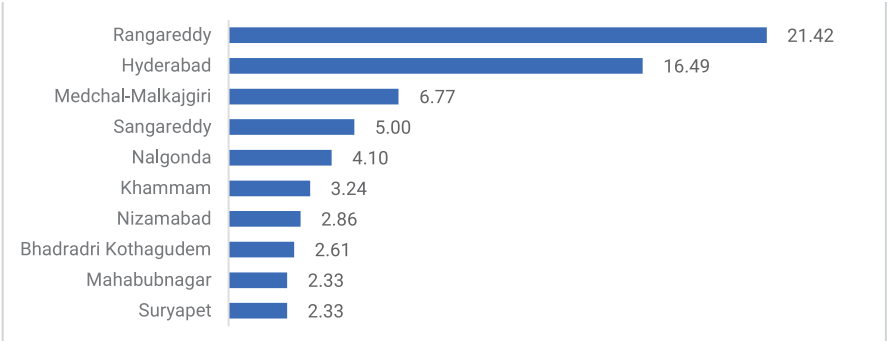
[9] https://www.india-briefing.com/news/indias-telangana-state-an-investors-guide-incentives-location-industry-talent-21530.html/

Telangana has thus established a suitable investment climate for both domestic and international business. It is following a path to establish itself has a major player in globalization, and harness any potential positive growth outcomes from it.

## 2.2 Economic Profile - Districts

According to the report, "Economic Development of Telangana@Ten", published by the Directorate of Economics and Statistics, Government of Telangana, in 2023, both Ranga Reddy and Hyderabad are the most urbanized districts of the state. The data on Gross District Domestic Product (GDDP), available till 2021–22, reveals that these two districts together account for nearly 38 per cent of the total state's GDP, since the inception of the state in 2014. Among these two districts, share of Ranga Reddy has been on an increasing trend. Its share in the state economy has surged from 16.2 per cent in 2014–15 to 21.4 per cent in 2021–22. Figure 2.5 presents the shares of GDDP of top ten districts in the state's economy. The figure reveals how the two districts—Hyderabad and Ranga Reddy—are far ahead of the other eight districts.

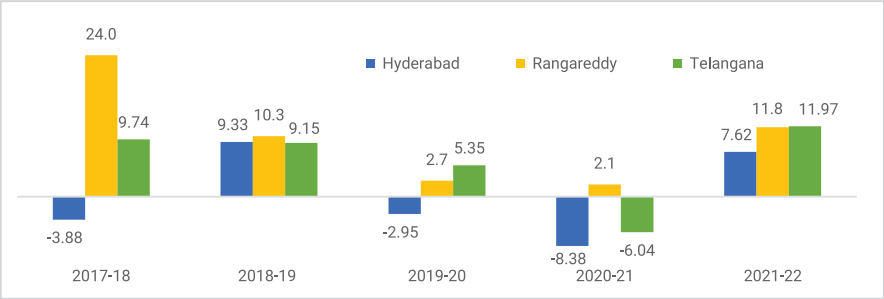
***Figure 2.5: Shares of GDDP of top ten districts in state GDP (%, 2021–22)***




*Source: Directorate of Economics and Statistics, Government of Telangana*

With respect to year-on-year growth of GDP (at constant prices), the state average for the previous five years (2017–18 to 2021–22) stood at 6.0 per cent. While the state economy posted a near-double digit growth through 2015–16 to 2018–19, the factors including outbreak of Covid-19 pandemic, starting from late 2019–20, led to the deceleration in 2019–20 (5.3 per cent) and a sharp contraction in 2020–21 (-6.0 per cent). Notably, all the districts posted sharp negative growth in 2020–21, except only Ranga Reddy. The district GDDP growth did witness a deceleration but did not contract from its previous year's level. Figure 2.6 presents the 5-year average annual growth, comparing Hyderabad and Ranga Reddy with the state GDP growth.

*Figure 2.6: Annual GDP/GDDP growth (%, year-on-year)*

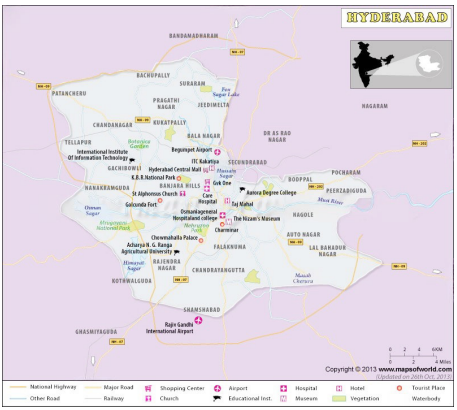



*Source: Directorate of Economics and Statistics, Government of Telangana*

## 2.3 Hyderabad City Profile

Hyderabad is the capital of Telangana and is known for its rich history, cultural diversity, and rapid economic growth. The city is positioned on the Deccan Plateau, and is characterized by hilly terrain and man-made lakes, the most famous being Hussain Sagar Lake. Built in 1591 by Muhammad Quli Qutb Shah, Hyderabad has evolved from a strategic fort town to a major trading centre. It earned the title "City of Pearls" for its historical role in the pearl and diamond trade (Luther, 2006)[10]. Today, it serves as both a heritage city and a thriving hub for technology and industry.

*Figure 2. 7: Hyderabad city map*




[10] Luther, N. (2006). Hyderabad : A Biography. Oxford University Press.

Hyderabad is among the largest and also most densely populated cities in India. The city is primarily inhabited by Telugu and Urdu speaking population. Hyderabad is also known for its festivals like Bonalu and Muharram, highlighting its religious and social plurality.

The city was once known for its trade and textiles and now is a global centre for giant tech industries as well as pharmaceuticals and biotechnology in India. Hyderabad has earned the name of "Genome Valley" in India because it is home to India's first organized cluster for Life Sciences R&D and Clean Manufacturing activities. The establishment of HITEC City has turned Hyderabad into a major IT corridor, attracting global tech giants such as Google, Microsoft, and Amazon.

Hyderabad is home to prominent education institutes like the University of Hyderabad, Osmania University, and the Indian School of Business (ISB). Thus, the city is a centre for higher education and research. It also fosters innovation through numerous tech incubators and research parks.

Hyderabad boasts modern infrastructure developments, with an extensive metro system and the Rajiv Gandhi International Airport, which serves as a key gateway to domestic and international destinations. According to World Bank (2020), the city is part of India's smart city initiatives which puts importance on sustainable urban growth. Hyderabad is geographically placed almost at the centre of India, which allows air travels to major Indian cities like Mumbai, Goa, Chennai, Bengaluru, Vizag, and Kochi within an hour. The city also serves as a good central spot for international flight travels to the cities of South East Asia or Middle East Asia like Bangkok, Singapore, or Dubai within a few hours.

## 2.4 Tourism Profile

Hyderabad's unique blend of historical sites, cultural diversity, and cutting-edge urban development makes it a premier travel destination. The city's historical significance is showcased through its architectural wonders like Charminar which was built in 1591 by Muhammad Quli Qutb Shah. The symbolic Charminar, with its four minarets and Indo-Islamic design, serves as both a monument and a lively market area. The Golconda Fort was once the centre of the medieval diamond trade and features impressive acoustics and strategic fortifications. The Qutb Shahi Tombs showcase Persian and Indian architectural influences and are the final resting places of the Qutb Shahi rulers. A famous museum, called the Salar Jung Museum holds one of the largest private collections of art and antiquities, featuring artefacts from across the globe.

Hyderabad also offers scenic and relaxing spots like the Hussain Sagar Lake, a man-made lake featuring a large Buddha statue at its centre, which is a popular spot for boating and

evening strolls. The Nehru Zoological Park is a home to a variety of animal species, which provides an immersive experience for wildlife enthusiasts. Lumbini Park, located near the lake, offers musical fountain shows and panoramic views of the city.

Hyderabad's rich cultural tapestry is experienced through its festivals, cuisine, and traditional arts. The culinary scene of the city is famed for its Hyderabadi biryani, a dish that encapsulates the flavours of Mughal and local Andhra cuisines, and Haleem, a staple during the Islamic month of Ramadan. The Laad Bazaar near the Charminar, is renowned for its traditional bangles, pearls, and bridal wear, offering visitors a glimpse into the city's rich handicrafts. Festivals like Bonalu and Eid are celebrated with great fervour, showcasing the communal harmony and cultural vibrancy of Hyderabad.

Hyderabad is also a hub of modern entertainment and experiences. Ramoji Film City is recognized as the largest film studio complex in the world, it offers guided tours and film-based attractions.

According to the latest edition of India Tourism Statistics, 2023, published by the Ministry of Tourism, Telangana recorded a total of 61 million domestic and international tourist visits in 2021. The share of Telangana in total tourist visits in India stood at 3.5 per cent in 2022.

In the aftermath of Covid-19 pandemic, all the states witnessed a huge growth in both domestic and international tourist visits in 2022, as compared with the previous year. Notably in Telangana, between 2021 and 2022, the Domestic Tourist Visits (DTV) increased from 32 million to 61 million, posting a growth of 89.8 per cent, while the overall national growth was higher at 155.4 per cent. On the other hand, Foreign Tourist Visits (FTV) in Telangana grew by more than 10 times, from 5900 FTVs in 2021 to 68,400 FTVs in 2022. This translates to an impressive growth of 1059 per cent as against national growth of 714 per cent.

Hyderabad itself hosted 2.6 million visitors in 2022 in three of its centrally protected ticketed monuments—Charminar, Golconda, and Warangal.

The mode of transport of foreign tourists to India is predominantly air transport. Barring South Asian countries, from where a number of tourists arrive through land ports as well, tourists from all other regions arrive through international airports. Hyderabad is among the top five international airports in terms of number of Foreign Tourist Arrivals (FTA) that prefer it for the mode of entry (Table 2.1). Similarly, it is also among the top five airports in terms of Departures of Indian Nationals, occupying the fourth position. Clearly, the presence of an international airport in Hyderabad has played a key role in attracting

tourists to Hyderabad. Globally too, an international airport provides a strong boost to tourism as it provides easy accessibility to a destination.

*Table 2.1: Shares of international airports with respect to foreign tourist arrivals and departures of Indian nationals (%)*

| Sl. No | International Airports in India | Foreign Tourist Arrivals | Departures of Indian Nationals |
|---|---|---|---|
| 1 | Delhi Airport | 37.7 | 24.9 |
| 2 | Mumbai Airport | 17.8 | 18.8 |
| 3 | Chennai Airport | 11.0 | 8.3 |
| 4 | Bangalore Airport | 7.6 | 6.2 |
| 5 | Hyderabad Airport | 5.5 | 7.5 |
| 6 | Others | 20.4 | 34.3 |

*Source: India Tourism Statistics, 2023*

## 2.5 Infrastructure Profile

Hyderabad has a well-developed infrastructure that supports its status as a global hub for business and technology. The city has made significant strides in urban planning, public transportation, sustainable initiatives, and utility services, cementing its reputation as a model for other Indian metropolises.

Hyderabad's transportation network is multifaceted, incorporating roadways, rail, and air connectivity. The city features a comprehensive road network that connects its historic old city to newer districts. Major expressways, including the 158-kilometer Outer Ring Road (ORR) and the Inner Ring Road (IRR), play a crucial role in easing traffic congestion and promoting smooth transportation. The Hyderabad Metro Rail is a significant achievement in the city's urban transit system, spanning over 69 kilometres and connecting key commercial and residential areas. This project has not only eased daily commutes but also contributed to reducing pollution.

The Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB) manages the city's water supply and sanitation, ensuring distribution for both residential and industrial purposes. Current projects focus on enhancing water conservation and minimizing waste. The Greater Hyderabad Municipal Corporation (GHMC) is responsible for waste management, which includes the collection, segregation, and recycling of solid waste.

Electricity distribution in Hyderabad is dependable, with the Telangana State Southern Power Distribution Company Limited (TSSPDCL) providing a stable power supply to residential, commercial, and industrial sectors.

Hyderabad's real estate sector is flourishing, fuelled by the expansion of the IT and industrial sectors. Suburbs such as Gachibowli, Madhapur, and Kondapur have emerged as prime residential areas, particularly for professionals in the IT corridor. These neighbourhood feature modern housing complexes equipped with green spaces and recreational amenities.

HITEC (Hyderabad Information Technology and Engineering Consultancy) City and the Financial District are at the forefront of commercial real estate, hosting corporate offices, start-ups, and co-working spaces, all supported by advanced infrastructure that meets the demands of global business operations. The HITEC City serves as a tech hub accommodating leading multinational companies like Google, Microsoft, and Facebook. It offers reliable power supply, high-speed internet, and strong security systems.

Additionally, Genome Valley is dedicated to the pharmaceutical and biotechnology sectors, providing state-of-the-art facilities for research and manufacturing.

In 2015, Government of Telangana in partnership with three academic institutes of Hyderabad—International Institute of Information Technology, Indian School of Business and National Academy of Legal Studies and Research—along with private sector set up the T – hub or Technology Hub at Hyderabad to facilitate innovation and entrepreneurship. The aim of T-hub is to provide launchpad for start-ups propelling them to the forefront of global innovation. By 2022, T-hub designed and delivered more than 100 innovation programs, enabling 2000 start-ups to scale nationally and globally and connecting them with various influential ecosystem stakeholders. It has collaborated with over 80 angel investors and venture capitalists (VCs) and has played a pivotal role in helping start-ups secure nearly $2 billion in funding. T-Hub has also enabled academia to introduce innovation and an entrepreneurial approach in curriculum and empower corporations to build a culture of innovation. T-hub 2.0 was launched in 2022 with a new innovation campus. The ten-storey T-shaped 5,82,689 sq. ft. facility is the world's largest technology incubator, the second largest being Station F based in France. T-Hub will further empower the thriving start-up ecosystem and support the entrepreneurs in their growth journey by providing them with access to 6Ms—Mentors, Market, Motivation, Manpower, Money, and Methodologies and 2Ps—Partnership and Policy advisory. In 2023, the Department of Science & Technology (DST) honoured T-Hub with the Best Technology Business Incubator award and in 2022, the Department for Promotion of Industry and Internal Trade (DPIIT) recognized T-Hub as India's Best Incubator.

## 2.6 Education Sector

Hyderabad city is an important centre for learning and education. The first university to be set up in the erstwhile princely State of Hyderabad was Osmania University, which is the seventh oldest University in India and third oldest university in South India. Currently, the city hosts many educational institutes and universities covering various fields of education like technical, management, medical, legal etc. There are three central universities, three deemed universities and six state universities in the city of Hyderabad. The three central universities located in Hyderabad are Osmania University, University of Hyderabad and Maulana Azad National Urdu University. Government of India gave the status of Institution of Eminence to University of Hyderabad in February, 2022.

The leading technical education institutes in Hyderabad are Indian Institute of Technology (IIT), International Institute of Information Technology, Birla Institute of Technology and Science, Pilani (Hyderabad Campus), Jawaharlal Nehru Technological University etc. Apart from this, one of the leading Business Schools of the country – Indian School of Business (ISB) is also located in Hyderabad. Narsee Monjee Institute of Management Studies (NMIMS), a leading private deemed university for management studied also opened its Hyderabad campus in 2010 establishing its presence in the city. Other educational institutes based in Hyderabad are ICFAI Foundation for Higher Education, Sri Sarada Institute of Science and Technology, Nizam's Institute of Medical Science, Institute of Public Enterprise and the National Academy of Legal Studies & Research (NALSAR) which is one of the best law schools in the country.

Hyderabad is also an important hub for research institutes hosting many research institutes across diverse sectors. Some of the research institutes located in Hyderabad are Tata Institute of Fundamental Research (TIFR), Indian Institute of Chemical Technology (IICT), Centre for Cellular and Molecular Biology (CCMB), National Institute of Rural Development and Panchayati Raj (NIRDPR), Defence Electronics Research Laboratory (DERL).

## 2.7 Manufacturing Sector

Hyderabad is a major hub for Life Sciences, often referred to as Nucleus of Life Sciences in Asia as it houses more than 1000 pharmaceutical and biotech companies with a combined value of USD 50 billion. It is home to major global and Indian Pharmaceutical companies like Lonza, Novartis, Johnson & Johnson, Dr Reddy's, Bharat Biotech, Aurobindo, and many others. It also has more than 20 Lifesciences and MedTech Incubators which is the highest for any city in the country. Hyderabad alone contributes one-third of the global vaccine output and is called the Vaccine Capital of the World. It has a cumulative manufacturing capacity of more than 6 billion doses of vaccine per annum.

It is also the 'Pharma Hub of the World' and is the only region/province in the world to have more than 200 US FDA approved manufacturing facilities. It accounts for more than 35 per cent of pharmaceutical production in India. Government of Telangana has undertaken various initiatives to strengthen the life sciences ecosystem including the establishment of World's Largest Pharma Cluster—Hyderabad Pharma City, strengthening and expanding the Genome Valley Cluster, and developing the county's largest Medical Devices Park at Hyderabad.

Apart from this, Hyderabad is a major hub for aviation, aerospace, and defence industries and houses several defence and aerospace research laboratories such as Defence Research and Development Organization (DRDO), Defence Research and Development Laboratory (DRDL), Research Centre Imarat (RCI), Bharat Dynamics Limited (BDL), and the Ordnance Factory. These organizations drive demand for high-precision components, boosting the region's manufacturing sector. Companies like Tata Advanced Systems Limited (TASL) and Elbit Systems specialize in precision engineering for aerospace and defence.

In 2020, Nova Integrated Systems Limited (NISL), a subsidiary of TASL, initiated the development of a state-of-the-art defence electronics manufacturing facility at Telangana State Industrial Infrastructure Corporation's (TSIIC) Industrial Park near Hyderabad. This facility, aimed at producing defence electronics for the Indian Armed Forces and DRDO, is estimated to generate direct employment for about 600 individuals.

In August 2023, Foxconn announced an investment of $400 million to establish high-precision electronics manufacturing facility on the outskirts of Hyderabad, which is expected to create 25,000 jobs.

## 2.8 IT Hub

Hyderabad has emerged as the second major IT destination, after Bengaluru, with a booming IT and software services sector. Its "Hyderabad Information Technology and Engineering Consultancy" city, abbreviated as HITEC City, is an Indian financial business district in Hyderabad. It is fast becoming the most preferred destination for several global IT players to house their Global Capability Centres (GCC). According to the NASSCOM-Zinnov India GCC Trends Half Yearly Analysis, Hyderabad hosted seven new GCCs in the first half of 2023 as compared to eight in Bengaluru. Meanwhile, Hyderabad saw expansion of four centres of established GCCs in the same period, whereas Bengaluru saw three expansions.

Recently, CapitaLand Group, a real estate investment and development company headquartered in Singapore, has announced a Rs 450 crore investment to develop a state-of-the-art 1 million square feet IT park in Hyderabad. Some of the other high-profile investments by global IT firms in Hyderabad are discussed below.

Amazon has a significant presence in the state of Telangana and has made significant investments in the recent past, especially in the city of Hyderabad. In 2019, Amazon opened its world's largest office in Hyderabad. This was Amazon's first fully owned office building outside the United States of America (USA) and could accommodate around 15,000 employees. In 2021, Amazon India launched a new Specialized Fulfilment Centre in Hyderabad along with capacity expansion of an existing Fulfilment Centre. The new Fulfilment Centre has a storage capacity of more than 6 lakh cubic feet. This is expected to benefit more than 35000 sellers and contribute in creating direct and indirect work opportunities in the State whilst ensuring seamless and faster deliveries to customers. Currently, there are 5 Fulfilment centres with more than 5 million cubic feet of storage space in Telangana.

Amazon Web Services (AWS) also has significant data centre operations in Hyderabad which started with the launch of Hyderabad cloud region in November 2022. In 2024, AWS announced its plan to expand the data centre operations with a new hyper scale data centre in Hyderabad for AI/ML enabled services. In January, 2023, Amazon also launched its own dedicated air cargo service, Amazon Air from Hyderabad. This was the first fleet of Amazon India and third fleet outside America and Europe for quick deliveries across key cities including Hyderabad, Bengaluru, Delhi, and Mumbai.

Google has also made several strategic investments in Hyderabad and expanded its presence in the city. In December, 2024, Google announced its plan to set up India's first Google Safety Engineering Centre (GSEC) at Hyderabad. The GSEC in Hyderabad will be Google's second in the Asia Pacific region, after Tokyo, and fifth in the world, along with Dublin, Munich and Malaga. GSEC is a specialised global hub to focus on user safety, security and privacy. The Hyderabad Centre will play a vital role in developing advanced security and online safety products in the context of India. The centre will focus on research, AI-driven security solutions and creating a collaborative platform for leading experts and researchers in cyber security. This would also foster skill development, boost employment and enhance cyber security capabilities in India.

Google is further planning to expand its presence in Telangana and is in discussions to establish a major Cloud Centre of Excellence (Google C-CoE) in Hyderabad. They are also exploring an agreement to partner with Telangana government to set up India's first Google-powered Intelligent Traffic Management System. This will harness the power

of Google Maps, AI, Live Camera Stream data management, real-time traffic signalling management, among others to improve traffic flow and reduce congestion. Google and the Telangana State Government are also exploring partnerships in start-up ecosystem, including a plan to establish a Google Start-up Hub to foster innovation and support local start up ecosystem.

Besides, Meta has been actively involved in various initiatives in Telangana and Hyderabad. In December 2024, Meta renewed its lease for office space spread over 367,000 square feet in a commercial tower in HITECH City area of Hyderabad through two separate agreements for five years. This signals Meta's intention to continue its significant presence in the city.

In September 2024, Meta announced a two-year partnership with Telangana government to enhance e-governance and citizen services using AI technologies. This will include deployment of e-governance solutions leveraging Meta's open-source generative AI technologies including the latest 'Llama 3.1 model'. This will be focused towards transforming various aspects of public service delivery and e-governance, along with enhancing efficiency and productivity of government departments and agencies through the use of Gen AI (generative AI).

Apple has also developed significant presence in the city of Hyderabad over the last few years. In 2016, Apple inaugurated a development office in Hyderabad dedicated to enhancing Apple Maps for iPhone, iPad, Mac, and Apple watch. This entailed a USD 25 million investment in a 250,000 square feet facility in the IT corridor of the city and generate up to 4500 new jobs.

Hyderabad has been a strategic location for various initiatives of Microsoft. Microsoft currently operates an India Development Centre (IDC) from Hyderabad which plays a pivotal role in the development and progression of Microsoft's technological offerings, such as Azure, Windows, Office, and Bing. In 2022, Microsoft announced its first captive data centre investment of three campuses with an investment of around Rs 15,000 crore. In January 2023, Microsoft further expressed its plan to invest Rs 16,000 crore for setting up three more data centres in Hyderabad. All the six data centres are estimated to be deployed phase-wise in the next 10–15 years. The Hyderabad data centre region by Microsoft is another addition to the existing network of three regions in India across Pune, Mumbai, and Chennai, which have been operational for more than five years.

# 3. RAJIV GANDHI INTERNATIONAL AIRPORT, HYDERABAD: A Snapshot

Rajiv Gandhi International Airport (RGIA) is located in Shamshabad about 25 kilometres South of Hyderabad and is named after late Shri Rajiv Gandhi, the former Prime Minister of India. It is spread across 5492 acres of land and is the largest airport of India by area.

*Figure 3.1: Rajiv Gandhi International Airport (RGIA)*

## 3.1 Overview of the Journey of RGIA

Prior to commissioning of the RGIA, the passenger needs of Hyderabad were met by the Begumpet Airport. In 1998, when it was realized that this airport was unable to handle the rising passenger traffic, three locations were selected for the construction of a new greenfield airport. These were Bongloor, Nadergul, and Shamshabad. Finally, Shamshabad was selected as an appropriate location due to its proximity to two national highways and a railway line.

In 1999, GMR Group, in partnership with Malaysia Airports, joined the race to develop a new Greenfield airport in Hyderabad. In 2000, Andhra Pradesh State Government and Airports Authority of India signed a Memorandum of Understanding to develop the greenfield airport in Public–Private Partnership (PPP) mode. It was decided that the

State Government and Airport Authority of India (AAI) would hold 26 per cent stake in the airport and the remaining 74 per cent would be allotted to private companies. Through a competitive bidding process, the project was awarded to GMR group and Malaysia Airport Holdings Berhad in 2001.

In December 2002, Hyderabad International Airport Limited (HIAL) was created as a special purpose entity to own and operate Rajiv Gandhi International Airport. This entity was later renamed as GMR Hyderabad International Airport Limited (GHIAL).

By 2004, the project was formalized with the signing of the Concession Agreement, and land acquisition and rehabilitation were completed. Construction officially began at Shamshabad in 2005, after securing financial closure. In a record time of just 31 months, 2008 saw the opening of Rajiv Gandhi International Airport (RGIA), the first world-class greenfield PPP airport in India, ahead of schedule. Airport operations kicked off on March 23, 2008.

The airport gained global recognition in its first year itself, ranking Number 1 worldwide in the Airport Service Quality (ASQ) survey by Airports Council International (ACI) in 2009 in its category. This year also marked the opening of the GMR Aerospace Park and SEZ, featuring direct airside connectivity, which was a first in India. In 2010, Hyderabad airport introduced India's first dedicated 'Pharma Zone,' offering unique facilities for the booming pharma industry in the region. With the launch of the "Fly via Hyderabad" program in 2011, the airport aimed to establish itself as a regional hub. The following year, 2012, saw the opening of the secondary runway and GMR Aero Technic, India's most advanced aircraft Maintenance, Repair, and Overhaul (MRO) facility. In 2013, the airport received a 5-star rating for Health & Safety from the British Safety Council, a first for any airport globally.

Following the formation of Telangana in 2014, passenger and cargo traffic surged. In financial year 2015, the airport crossed the 10-million annual passenger mark and commissioned a 5MW captive solar power plant. Hyderabad airport became the first in the country to offer complete e-boarding services. The airport also achieved ACI Level 3+ 'Carbon Neutrality,' the first airport in Asia-Pacific in its category to do so.

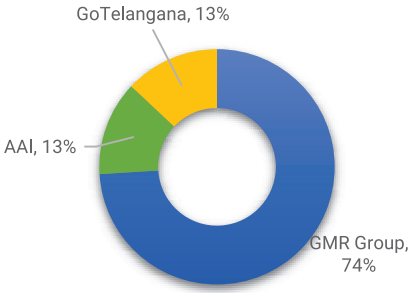
The year 2017 was another milestone year, with the airport crossing the 15-million annual passenger mark and introducing India's first 'Express Security Check' for hand baggage passengers. Amazon set up South Asia's largest e-commerce fulfilment centre at Hyderabad Airport City. In 2018, Hyderabad airport started large-scale expansion operations aimed at handling 35 million annual passengers. The Interim International Departures Terminal (IIDT) was inaugurated the same year.

In 2019, the airport added 26 new aircraft parking stands and modernized its domestic security check area with the Automated Tray Retrieval System (ATRS), a first in India. The interim Domestic Arrival Terminal (IDAT) was also opened. Despite the challenges of the pandemic, the airport pushed forward in 2021. GMR Group launched GMR Innovex as a platform for future growth initiatives, and the foundation stone for the GMR School of Aviation was laid. Four new Rapid Exit Taxiways were added to enhance efficiency. In 2023, the airport achieved another significant milestone by being recognized as the World's Second Most Punctual Global Airport, with an on-time performance of 84.42 per cent, closely following the Minneapolis–Saint Paul International Airport, with an on-time performance of 84.44 per cent.

## 3.2 Ownership Details

The current shareholders of the Rajiv Gandhi International Airport (RGIA) are GMR Airports Limited, Airport Authority of India (AAI) and Government of Telangana. Previously GMR Group had a consortium with Malaysia Airports Holdings Berhad which had 11 per cent of the shareholdings. But since January 2024, GMR Airports Limited took over the stake of Malaysia Airports Authority Berhad.

*Figure 3.2: Shareholders of RGIA*

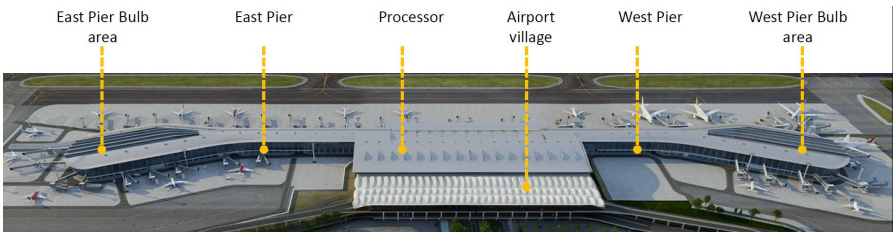



## 3.3 Overview of Infrastructure

### Airside Infrastructure

Rajiv Gandhi International Airport has two runways—the primary runway 09R/27L is one of the longest in Asia with 4,260 metres of length and the secondary Runway (Code E) is 3707 metres long.

*Figure 3.3: RGIA layout*



There are eight Rapid Exit Taxiways of the primary runway. The airport's airside infrastructure is compliant with Code F Aircraft. The Hydrant Refuelling system & clean air Ground Power Units (GPU) is also available at RGIA. The airport currently offers 44 contact stands and 56 remote stands, including 2 stands designed for Code F aircraft.

*Figure 3.4: Airside view of RGIA*


## Passenger Terminals

Rajiv Gandhi International Airport currently has one integrated passenger terminal for both domestic and international flights. The airport also houses a separate cargo terminal. The designed passenger capacity is 34 million passengers per annum (MPPA) and with some operational adjustments, can be expanded to 40 MPPA. There are currently 44 immigration counters which will be increased to 68 in a phased manner.

*Figure 3.5: Passenger terminal—RGIA*

The Airport Passenger Terminal Building has been certified with the coveted 'Leadership in Energy and Environmental Design' (LEED) platinum certification for its green building structural design. The terminal is built to allow maximum natural light and energy conservation measures, have been implemented like installation of LED lighting and considered other environmental features for ensuring minimal use of energy and water.

The airport also offers various facilities to enhance the passenger experience, including:

- A Public Transport Centre (PTC) for State Road Transport services, city buses, long-distance buses, and free RGIA shuttles connecting only the terminal building.
- Parking facilities for radio taxis, prepaid taxis, and app-based taxis (Ola, Uber).
- Overnight stay options at economical rates (A/C and Non-A/C), with individual rooms available (Standard and Deluxe).
- Breakfast, lunch, tea/snacks, dinner, and general stores to meet passenger needs.

*Figure 3.6: Passenger terminal operations at RGIA*

### Cargo Terminal Infrastructure

The GMR Hyderabad Air Cargo Terminal at Hyderabad International Airport is India's first integrated cargo terminal, housing international, domestic, and Pharma Zone facilities under one roof. It features India's first exclusive 'Pharma Zone' for handling temperature-sensitive pharmaceuticals and is globally recognized with GSDP-WHO (Good Storage and Distribution Practices, as recommended by World Health Organization) and EU-RA3 (Third country Regulated Agent validated and approved based on European Union aviation security validation) certifications. It also has the country's largest cool container handling centre, offering comprehensive cool chain solutions. Renowned for its expertise in managing large, odd-dimension cargo, the terminal is the fastest-growing for perishables like fruits, vegetables, marine products, poultry, and seeds. It is also one of the most awarded cargo terminals in India, recognized for its infrastructure and operational excellence.

*Figure 3.7: Cargo terminal facility at RGIA*


Rajiv Gandhi International Airport (RGIA) serves as a key gateway, connecting South and Central India to major international freight hubs. Strategically located, the airport offers quick access to all major Indian cities within a 2-hour flight distance and to Middle Eastern and South Asian hubs within 4–5 hours' distance. RGIA's direct freighter connectivity spans across key regions like the Middle East, Europe, Far East, and Southeast Asia, with ongoing efforts to expand this network. Additionally, efficient road feeder services and bonded truck movements extend air freight services to customers throughout West, South, and Central India. Lufthansa Cargo, Cathay Pacific Cargo, Qatar Cargo, Turkish Cargo and Blue Dart operate freighters from RGIA.

The airport boasts robust cargo infrastructure, including a dedicated cargo apron compatible with Code F (A380) aircraft. Cargo facilities are located adjacent to the terminal for quick turnaround, with Cargo Terminal-1 (CT1) handling up to 1,50,000 metric tons annually. The integrated cargo village houses facilities for handling, processing, storage, customs, and banking under one roof, supporting efficient cargo operations 24/7. The airport's Pharma Zone is equipped with specialized cold storage for temperature-sensitive imports and exports, featuring temperature-controlled zones and facilities for cool containers.

Some of the awards won by RGIA's cargo facility are listed below

- Best airport for cargo import release times for the second consecutive year in the National Time Release Study (NTRS) 2024 and ranked second-best for export release times.
- Gold Award in the 'Time Critical Logistics Solution Provider of the Year' category at the Fifth Edition of the Southeast Air Cargo Conclave and Awards 2024
- Cold chain Team of the year, Sixth Cold Chain Strategy Summit – 2017
- Fastest Growing Cargo Airport, Cargo Talk – 2016
- Best Cargo Terminal Workforce, ELSC Conclave – 2016
- Cargo Ground Handler of the Year, Highly Acclaimed Stat Times - 2016
- Emerging Cargo Airport of the Year, Highly Acclaimed Stat Times – 2016
- Best Warehouse Workforce of the year, 2015
- Stat Times Highly Acclaimed Emerging Airport of the Year, 2014
- Middle East/Indian Subcontinent Airport of the year and Green Award by Payload Asia Awards, 2014
- Best Cargo Terminal in India, ACAAI – 2012,2013

### GMR Aerospace & Industrial Park

To support exports, RGIA features India's first airport–based multiproduct Special Economic Zone (SEZ), namely GMR Aerospace & Industrial Park SEZ, spread over 277.82 acres, which includes an Airport-based Free Trade Zone. This has been developed to meet the growing needs of manufacturing hubs in the country. The park is well connected by air, road, and rail, as well as to ports. The strategic location offers businesses easy

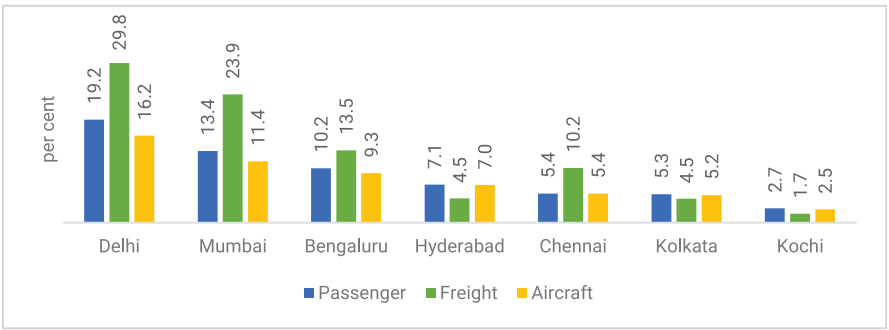
access to suppliers, enabling efficient supply chain management. These linkages also provide the benefit of faster turn-around time, maximisation of productivity and reduction in transportation costs.

The SEZ offers ready to use industrial infrastructure to a variety of industries which include aerospace, defence, pharma, electronics, automobile, IT/ITES and telecom, all within the secure environment of the airport, ensuring streamlined logistics and enhanced operational efficiency.

## 3.4 Traffic at RGIA

RGIA handled about 7.1 per cent of the passengers amongst all the airports in India in 2024–25. It handled 7 per cent of the flights during the same year which puts it at the fourth position in terms of total number of flights handled, after Delhi, Mumbai, and Bengaluru airports. In terms of the volume of cargo handled during the year, Hyderabad is amongst the top five airports in India with 167.6 thousand metric tonnes (MT) of cargo handled during 2024–25. (Figure 3.8)

***Figure 3.8: Percentage share of passengers, flights and cargo handled in 2024–25 relative to All-India figures***




*Source: Based on data from AAI*

The compound annual growth rate (CAGR) of RGIA between the period 2014–15 and 2024–25 is way above the all-India average for major airports in each category—passenger movement, freight, and air traffic movement—for international and domestic movements as well as in terms of total movements in each of these categories (Table 3.1). RGIA recorded CAGRs of 10.9, 5.4, and 8.0 per cent in total passenger movement, total freight and total air traffic movement respectively as against all India CAGRs of 8.0, 3.9, and 6.1 per cent respectively. Notably, amongst the major airports, RGIA recorded the

highest CAGR among all the airports for domestic and total passenger movement and domestic and total aircraft movement.

***Table 3.1: Performance of major airports in India—% CAGR during 2014–15 to 2024–25***

| | Delhi | Mumbai | Bengaluru | Hyderabad | Kochi | Chennai | Kolkata | All India |
|---|---|---|---|---|---|---|---|---|
| International Passengers | 4.8 | 3.2 | 7.1 | 5.4 | 3.4 | 2.2 | 2.3 | 4.3 |
| Domestic Passengers | 7.7 | 4.6 | 11.2 | 12.4 | 8.3 | 5.6 | 8.0 | 9.2 |
| Total Passengers | 6.8 | 4.2 | 10.5 | 10.9 | 5.7 | 4.6 | 7.2 | 8.0 |
| International Freight | 5.6 | 3.0 | 6.8 | 6.0 | -2.4 | 2.9 | 0.8 | 4.2 |
| Domestic Freight | 3.4 | 1.2 | 4.9 | 4.6 | 3.2 | 0.3 | 2.5 | 3.5 |
| Total Freight | 4.8 | 2.5 | 6.0 | 5.4 | -1.3 | 2.2 | 1.9 | 3.9 |
| International Aircraft Movement | 2.9 | 1.9 | 5.3 | 5.1 | 2.1 | 1.2 | 1.4 | 3.0 |
| Domestic Aircraft Movement | 5.1 | 2.1 | 7.5 | 8.6 | 4.6 | 2.9 | 4.9 | 6.8 |
| Total Aircraft Movement | 4.5 | 2.0 | 7.2 | 8.0 | 3.4 | 2.5 | 4.4 | 6.1 |

*Source: Based on data from AAI*

Hyderabad Airport handled around 29.2 million passengers including both domestic and international passengers making it the fourth busiest airport in terms of number of passengers in the year 2024–25. In case of domestic passengers as well, Hyderabad Airport was fourth busiest with 24.4 million passengers in 2024–25. Although Delhi, Mumbai, and Bengaluru have significantly higher number of domestic passengers (57.7, 39.5, and 36.0 million passengers respectively), a much higher CAGR for Hyderabad Airport between 2014–15 and 2024–25 (refer Table 3.1) shows the faster pace of growth for RGIA.

In case of international passengers, Hyderabad Airport saw a footfall to 4.7 million passengers in 2024–25 making it the sixth busiest airport after Delhi, Mumbai, Chennai,

Kochi, and Bengaluru. However, it recorded the second highest CAGR for international passengers between 2014–15 and 2024–25 right after Bengaluru which highlights the growth trajectory of RGIA.

As of March 31, 2025, Hyderabad Airport was connected with 72 domestic destinations (Figure 3.9); the top destination from Hyderabad was Delhi followed by Bengaluru, Mumbai, Chennai, and Kolkata (Table 3.2). Close to 15 per cent of all departing passengers on the domestic route travelled to Delhi and around 46 per cent of all departing passengers from Hyderabad Airport travelled to its top five destinations.

*Figure 3.9: Domestic connectivity*

*Table 3.2: Percentage distribution of departing passengers to top domestic destinations from Hyderabad airport*

| Destinations | 2018–19 | 2019–20 | 2020–21 | 2021–22 | 2022–23 | 2023–24 |
|---|---|---|---|---|---|---|
| Delhi | 15.1 | 15.0 | 13.6 | 15.5 | 14.8 | 14.5 |
| Mumbai | 11.2 | 11.5 | 6.7 | 8.2 | 9.6 | 11.0 |
| Bengaluru | 12.4 | 10.2 | 7.2 | 8.5 | 10.3 | 10.5 |
| Chennai | 6.6 | 7.4 | 6.4 | 6.9 | 6.3 | 6.1 |
| Kolkata | 5.8 | 5.4 | 8.2 | 7.3 | 5.4 | 5.3 |
| Visakhapatnam | 4.2 | 4.6 | 5.1 | 5.5 | 4.1 | 4.0 |
| Dabolim (Goa) | 3.8 | 4.3 | 4.9 | 5.5 | 5.0 | 3.9 |
| Kochi | 3.0 | 2.4 | 2.1 | 2.5 | 2.9 | 3.3 |
| Tirupati | 3.3 | 2.9 | 3.3 | 3.9 | 3.3 | 3.1 |
| Jaipur | 2.6 | 3.0 | 3.3 | 2.7 | 2.4 | 2.9 |
| Pune | 2.9 | 2.5 | 2.1 | 1.8 | 2.4 | 2.8 |
| Ahmedabad | 3.8 | 3.4 | 3.6 | 2.7 | 2.4 | 2.3 |
| **Total Departing Passengers (million)** | **9.7** | **9.8** | **3.9** | **5.6** | **8.7** | **10.1** |

*Source: Directorate General of Civil Aviation (DGCA)*

Till March 31 2025, Hyderabad Airport was connected to 24 international destinations (Figure 3.10) with the top destination being Dubai with 23.2 per cent of all international departing passengers to Dubai from Hyderabad. Interestingly, close to 57 per cent of the international departing passengers travelled to the top five international destinations—Dubai, Doha, Abu Dhabi, Singapore, and Muscat from Hyderabad Airport in 2023–24. Between 2018–19 to 2023–24, around 28 per cent of the passengers travelled to the top destination Dubai (2.4 million passengers in 2018–19 to 2023–24). The second ranked destination was Doha, with 0.9 million passengers travelling to Doha between 2018–19 and 2023–24.

*Figure 3.10: International connectivity*


*Table 3.3: Percentage distribution of departing passengers to top international destinations from Hyderabad airport*

| Destinations | 2018–19 | 2019–20 | 2020–21 | 2021–22 | 2022–23 | 2023–24 |
|---|---|---|---|---|---|---|
| Dubai | 29.1 | 30.0 | 45.9 | 27.9 | 28.2 | 23.2 |
| Doha | 7.0 | 8.4 | 9.4 | 22.3 | 10.9 | 10.3 |
| Abu Dhabi | 7.5 | 8.1 | 2.9 | 5.0 | 6.8 | 9.7 |
| Singapore | 6.8 | 7.2 | 0.6 | 1.0 | 6.8 | 7.3 |
| Muscat | 8.8 | 6.8 | 8.4 | 5.6 | 5.2 | 6.6 |
| Sharjah | 6.4 | 6.3 | 20.5 | 15.1 | 6.3 | 5.1 |
| Kuala Lumpur | 6.2 | 5.6 | 0.3 | 0.4 | 4.3 | 5.0 |
| Riyadh | 2.7 | 3.1 | 0.0 | 2.3 | 5.3 | 4.3 |
| London | 4.1 | 3.6 | 6.3 | 5.4 | 4.9 | 2.9 |
| Total Departing Passengers (in million) | 1.7 | 1.7 | 0.2 | 0.7 | 1.8 | 2.3 |

*Source: Directorate General of Civil Aviation (DGCA)*

## 3.5 Trade from RGIA

Boasting an integrated cargo terminal, a Pharma Zone for temperature-sensitive pharmaceuticals, and being India's first airport-based Free Trade Warehousing Zone (FTWZ), RGIA is a major trade hub, especially for pharmaceuticals and perishables. It has the largest cool container handling centre in the country, which enables end-to-end cool chain solutions. The FTWZ and the Aerospace Park facilitate re-export and re-sale of goods without any restrictions.

As per the data from Directorate General of Commercial Intelligence and Statistics (DGCI&S), Kolkata, the exports from RGIA increased from Rs 265 billion in 2018–19 to Rs 414 billion in 2023–24, clocking the CAGR of 9.4 per cent, and contributing over 6 per cent to the country's total airborne exports each year. Pharmaceuticals and chemicals constitute about three-fourth of the total exports from the airport. The top four commodities exported from RGIA are:

1. Drug Formulations and Biologicals: This category includes medications produced using living systems such as microorganisms, plant cells, or animal cells. This constituted 29.7 per cent of total exports from RGIA in 2023-24

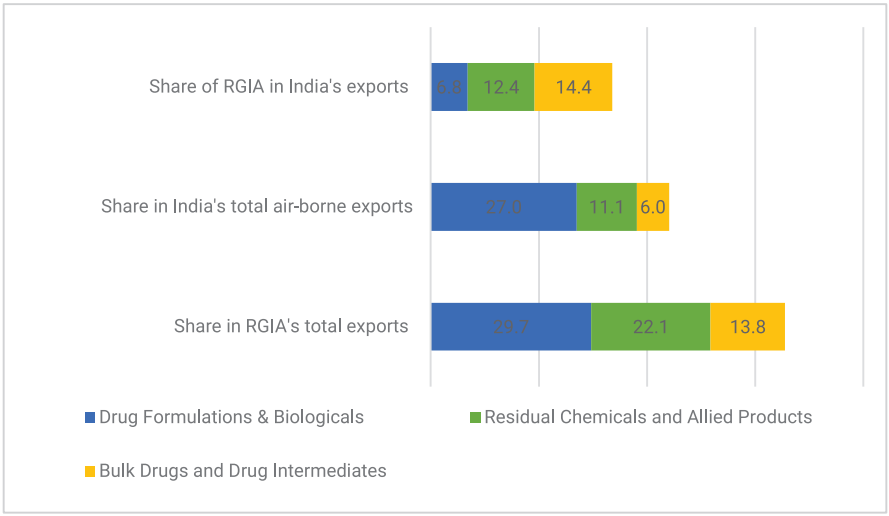
2. Residual Chemicals and Allied Products: This category includes industrial chemicals, fertilizers, and specialty chemicals and constituted 22.0 per cent of total exports from RGIA in 2023-24.

3. Bulk Drugs and Drug Intermediates: India is a major global supplier of bulk drugs or Active Pharmaceutical Ingredients (APIs). This category accounted for 13.8 per cent of total exports from RGIA in 2023–24.

4. Organic Chemicals: This category includes agrochemicals, plastics, synthetic rubber, tanning and dyes, and filaments, and constituted 9.3 per cent to total exports from RGIA in 2023–24.

The combination of these four commodities has accounted for about 10 per cent of India's exports of the same combination in all the years since 2018-19 till 2023-24. Of these, the contribution of Bulk Drugs from RGIA to India's Bulk Drugs exports is the highest at 14.4 per cent.

*Figure 3.11: Top three commodities exported from RGIA*



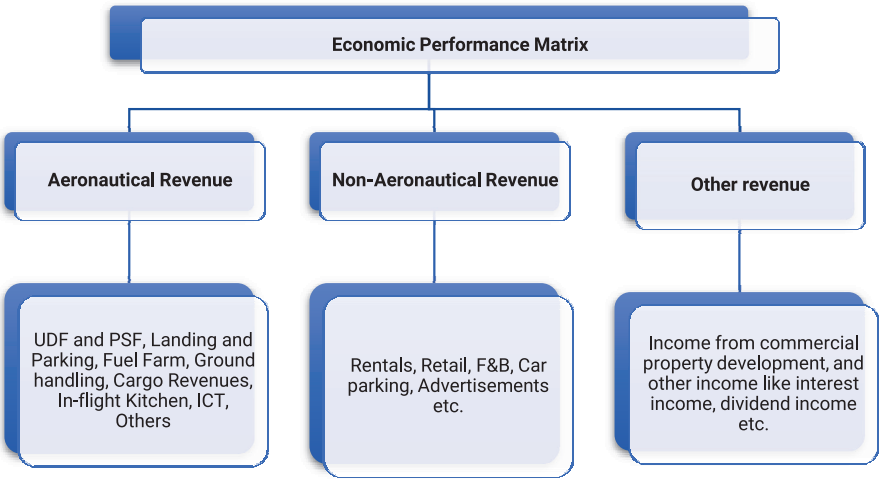

*Source: DGCI&S*

It is worth noting that during the Covid year 2020–21, GMR Hyderabad Air Cargo deployed over 200 personnel to ensure the supply of essential goods in both domestic and international destinations. These essential goods included medicines, vaccines, medical equipment, pharma raw material, defence goods, etc. With regard to international trade, only Hyderabad and Ahmedabad airports recorded positive growth in exports in 2020–21 over the previous year, while all other airports witnessed a significant fall in exports. RGIA registered a growth of 13.6 per cent during 2020–21 whereas India's total air-borne exports decreased by 16.2 per cent in that year. The robust growth was led mainly because of an exceptional 29.4 per cent growth in the exports of Bulk Drugs and Intermediates from RGIA.

## 3.6 Financial Performance of GHIAL

Efficiency of an airport in running its day-to-day business can be defined in terms of its revenue and expenditure. Efficient management of airport must ensure that the resources of the airport are being utilized judiciously in a reliable manner. The flow chart below depicts the sub-categories of revenue coming from various sources.

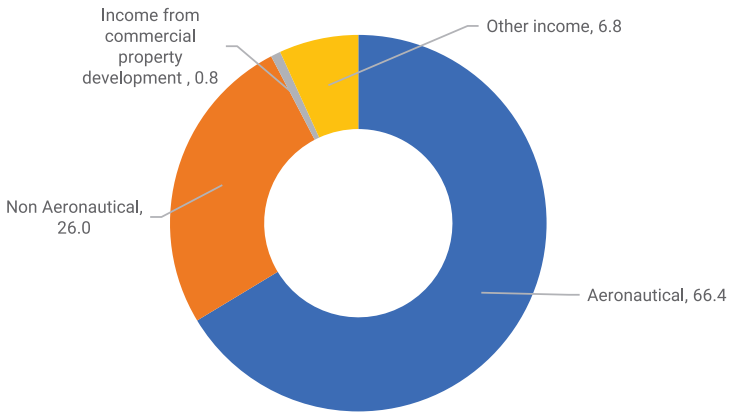
*Figure 3.12: Economic performance matrix of GHIAL*




*Source: GHIAL*

For FY 2024–25, aeronautical revenue accounted for about 66.4 per cent in total GHIAL's revenue, while non-aeronautical revenue contributed 26 per cent. The share of "other income" which includes interest income, dividend income, profit on sale of current investments, etc. stood at 6.8 per cent (Figure 3.13).

*Figure 3.13: GHIAL revenue sources (per cent breakup)*



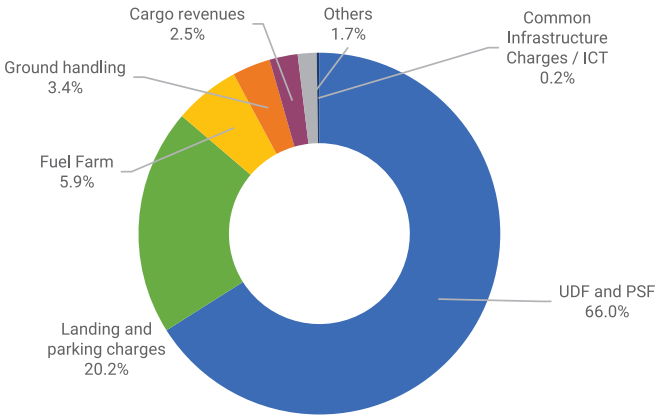

*Source: Based on data from GHIAL*

### Aeronautical Revenue

The key components of aviation revenue are given below:

- User Development Fees (UDF) and Passenger Service Fee (PSF): For facilitating the passenger movement and for the provision of other services at the airport.
- Landing and Parking Charges: For allowing the carriers to operate their aircraft at the airport
- Fuel Farm: Charges towards the facility that stores, manages, and distributes fuel.
- Cargo Revenues: Fees collected for the use of the airport's freight-processing facilities and areas.
- Others: All other charges and fees collected from aircraft operators for other types of facilities and services provided at the airport for the operation of aircraft, such as, security charges, charges towards noise-prevention measures, etc.

*Figure 3.14: Per centage distribution of aeronautical revenue (2024–25)*




*Source: Based on data from GHIAL*

### Non-aeronautical Revenue

Traditionally, airports were considered to be primarily responsible for providing infrastructure and required resources to the airline operators and therefore, aeronautical revenue used to be the primary source of revenue. As the airport industry worldwide, including India, gained momentum and expanded its base of air travellers, the airports

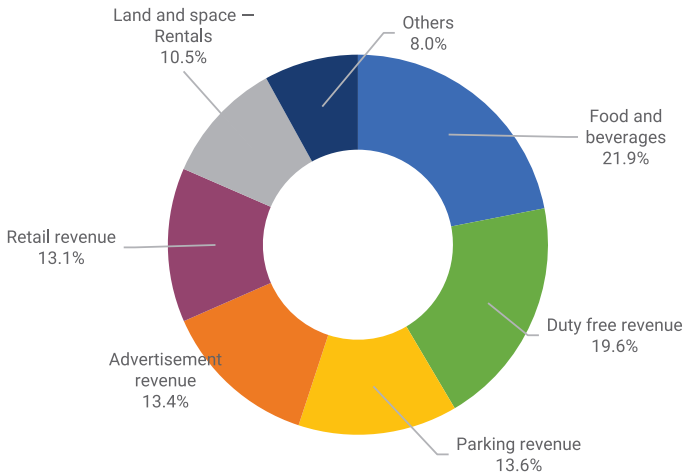
transformed from being mere infrastructure providers for airline businesses to becoming market entities with several sources of revenue. Therefore, non-aeronautical revenue became an essential part for analysis of an airport's performance.

Non-aeronautical revenue includes revenue accruing from the following categories:

- Revenue share and rental from Concessionaires (F&B, retail, duty free, advertising) inside and outside the terminal
- Parking services
- Land and space rentals
- In flight kitchen
- Others

Figure 3.15 shows that during 2024–25, 48.4 per cent of the non-aeronautical revenue generated from concessionaire's income including F&B, Retail and Advertising Revenue. 19.6 per cent of the non-aeronautical revenue was generated from duty free services. Parking contributed 13.6 per cent to the total non-aeronautical revenue while the share of land and space rentals was 10.5 per cent and the remaining 8 per cent came from other services.

***Figure 3.15: Percentage distribution of Non-Aeronautical Revenue (2024–25)***

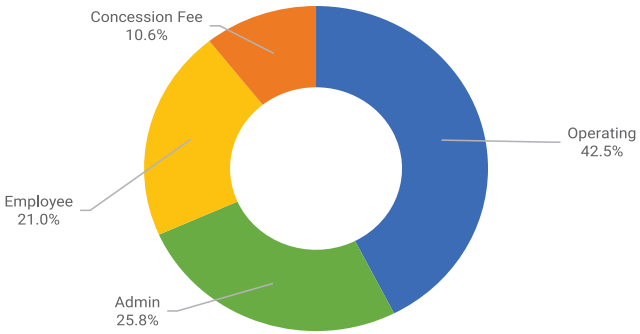



*Source: Based on data from GHIAL*

## Expenditure

GHIAL's expenditure has following major components—Concession Fee, Operating Expenditure, Employee Benefits, and Administrative Expenses. As per 2024-25 financial statement, operating expenditure accounts for the highest share, at 42.5 per cent, followed by administrative at 25.8 per cent (Figure 3.16).

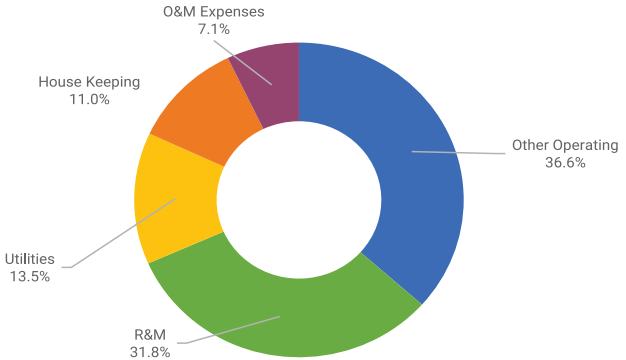
*Figure 3.16: Expenditure Profile of GHIAL (2024–25)*




*Source: Based on data from GHIAL*

The operating expenditure includes expenses towards operating and maintenance (O&M); utility charges; housekeeping charges; repair and maintenance (R&M); and other miscellaneous operating expenses. During the financial year 2024–25, the share of R&M expenses at 31.8 per cent, and of other operating expenses at 36.6 per cent, were the most significant in GHIAL's total expenses (Figure 3.17).

*Figure 3.17: Operating Expenditure pattern of GHIAL (2024–25)*

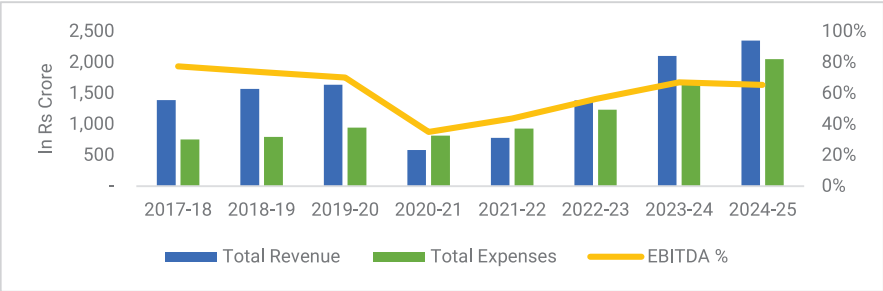



*Source: Based on data from GHIAL*

### Financial Growth over the years

Hyderabad airport has seen an overall increase in total revenue between 2017–18 and 2024–25. Despite the shutdown of operations during the COVID period, which led to a sharp decrease in total revenues, the airport has since recovered from this economic shock and recorded substantial revenues that surpass pre-pandemic levels. GHIAL recorded an EBITDA as per cent to revenue at more than 75 per cent in 2017–18 which remained stable and within the same range till COVID-19 pandemic. The economic shock of COVID caused the EBITDA per centage to drop below 50 per cent in 2020–21 and 2021–22. EBITDA per centage has since been on an upward journey reaching 65 per cent in 2024–25 highlighting the quick economic recovery of GHIAL and the profitability of RGIA at an operational level.

*Figure 3.18: Revenue, expenditure and EBITDA per cent of GHIAL (Rs Cr)*




*Source: Based on data from GHIAL*

# 4. STUDY METHODOLOGY

In this study, the economic impact of RGIA is estimated and presented in terms of its contribution to the national and state economy. The contribution is assessed with respect to the following macro parameters:

- Output
- Value Added
- Employment

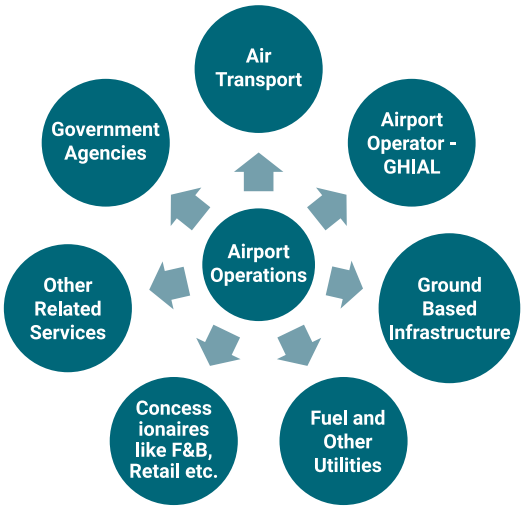
The airports have multi-faceted impact on the economy in terms of direct, indirect, and catalytic effects on production, income, consumption, employment, and taxes. Each of these are discussed in the following sections.

### Direct Impact

The direct impact of an airport refers to the contribution it makes to the economy due to all kinds of activities undergoing at the airport which are directly related to its operations. In simple terms, these are the activities that would most likely cease to exist if there were no airport. The implication of measuring the direct impact is to estimate the expected change in the values of macro indicators for these activities, given the change in the demand arising from the airport's users, including airlines, passengers, cargo service providers, etc. This change in demand may result from the increase or decrease in end users' traffic or from the investment for expansion which itself is based on the expected increase in the traffic of end users at the airport. The macro indicators which are expected to show change in their values due to the change in demand are values of output, Gross Value Added, and employment. Therefore, the direct impact is measured with respect to all of these three indicators.

The key components of Direct Impact of an airport are as depicted in Figure 4.1.

*Figure 4.1: Components of direct impact*




### Indirect Impact

In addition to the direct impact, every economic activity has an indirect impact on the economy, which is on account of the inter-linkages with the industries in its supply chain. The same is true for airport operations too. The direct impact, as mentioned in previous section, results from the activities directly related to airport operations like airline operations, ground-based infrastructure activities, concessionaires, etc. The indirect impact results from the purchases of goods and services made by the directly related activities at the airport. Indirect impact is also called second-round impact or spill-over impact.

### Induced Impact

The direct and indirect impacts result in the induced impacts. As the income of the employees increase due to the direct and indirect impact, their propensity to consume also increases. Therefore, the induced impacts are triggered by the additional expenditure incurred by the employees and their families which in turn leads to increased demand for goods and services and subsequent increase in overall economic output.

## 4.1 Data Sources for Direct Impact

Measurement of direct economic impacts requires collating financial and employment data for all the existing establishments whose activities are linked to the airport. According to the Airport Economics Manual (Third edition, 2013, ICAO)[11], the main functions of airports, which constitute airport services and generate airport revenues, are broadly classified as Aeronautical activities, Ground handling activities, and Non-aeronautical activities.

The items within each of the broad activities are the following:

**Revenues under Aeronautical activities:**

- Value of revenue of all domestic airlines operating from RGIA. For international airlines, the values of fee which they pay for operating from RGIA Airport are considered. These include User development fee (UDF), Landing charges, Parking & Housing charges for both passenger and cargo.
- Landing charges: Charges and fees collected for the use of runways, taxiways and apron areas, including associated lighting.
- Parking charges: Charges collected from aircraft operators for the parking of aircraft (where not included in the landing charge) and their housing in airport-owned hangars, including any revenue from the leasing of such hangars to aircraft operators. Towing charges, if imposed, should also be included under this heading.
- Cargo charges: Fees collected in respect of cargo for the use of the airport's freight-processing facilities and areas.
- Aviation fuel and oil concessions (including throughput charges): All concession fees, including any throughput charges, payable by oil companies or any other entities for the right to sell or distribute aviation fuel and lubricants at the airport.
- Fuel Into-Plane services: Revenue of the service providers to supply fuel into aircraft using hydrant systems or refuelling vehicles.
- Fuel-farm: charges towards facility that stores, manages, and distributes fuel.
- Fuel uplift: Value of aviation fuel
- Value of revenue of provider of Maintenance, Repair, and Overhaul (MRO) services

[11] https://www.icao.int/sites/default/files/sp-files/sustainability/Documents/Doc9562_en.pdf

- Value of revenue of provider of In-flight kitchen services
- Other charges on air traffic operations: All other charges and fees collected from aircraft operators for other types of facilities and services provided at the airport for the operation of aircraft, such as, security charges, charges towards noise-prevention measures, etc.

**Revenues under Ground-handling activities:**

This refers to the charges and fees collected from aircraft operators for the use of facilities and services provided by the airport for the handling of aircraft. It should be noted that at the majority of airports ground handling is largely carried out by one or more airlines or special ground-handling enterprises. In the latter case, the airport imposes concession and/or rental fees which is recorded as revenues from non-aeronautical activities.

**Revenues from Non-aeronautical activities:**

Total revenue of the following entities including charges and fees payable by these commercial enterprises for the right to operate at the airport:

- Restaurants, bars, cafeterias, retail stores and catering services
- Duty-free shops
- Automobile parking facilities
- Other concessionaires and commercial activities operated by the airport (such as lounge, automobile rentals, and banking and exchange bureaus concessions) at the airport.
- All other non-aeronautical revenue generating activities, which includes services such as advertising, heating, air-conditioning, lighting, water, cleaning and telephone use.

The key data source to obtain values of above-mentioned revenue-generating activities are:

- Financial information and employment details of all the establishments (service providers) at the airport
- Financial information of domestic airlines from the annual reports published by Directorate General of Civil Aviation (DGCA)
- Financial information of the airport developer, GHIAL

The total revenue generated at airport is the sum of revenue generated by the airport developer as well as all associated activities being undertaken by entities engaged in providing various services to the end users at the airport. For many activities, undertaken at the airport, a stipulated share of their revenue is directed to GHIAL, and is indicated in its financial statement. It is carefully noted that GHIAL's revenue on account of these activities are not considered, in order to avoid double-counting.

Similarly, total employment created at the airport is the sum of number of workers employed by each economic activity.

## 4.2 Data Source for Indirect and Induced Impact

In order to derive the indirect as well as induced impact of any economic activity, the widely used methodology is the use of Input-Output (IO) models and the multipliers derived from these modes. The IO models, as they are popularly known as, are based on the IO tables, which present the structure of an economy and all of its economic activities in terms of flows of inputs and outputs in production process across all sectors. The inputs are the goods and services used for the production; and the outputs are the products and by-products produced in each economic activity. For this study, IO table of India has been used to derive the values of multipliers.

Two types of multipliers can be derived from the IO modes—Type I and Type II. The Type I multipliers obtained through these models are the measures of inter-industry linkages and therefore, of the combined impacts (including direct and indirect) of any economic activity. These indicate the total units of output generated in the economy owing to a unit increase in demand for a particular economic sector.

On the other hand, Type II multipliers are used to quantify the induced impact. For this, the household account of the IO table is endogenized into the input-output framework. The household account refers to the household income (compensation of employees) and expenditure (private final consumption expenditure). These Type I and Type II multipliers can be derived separately for Output, Gross Value Added and Employment.

The derivation of all types of multipliers is described below:

An output multiplier for a sector derives the total value of production in all sectors of the economy that is necessary at all stages of production in order to produce one unit of product of that sector due to its final demand. The higher the values of multipliers, the larger are the effects on the input-output system of the economy. The column sum of a specific sector in the Leontief inverse matrix (Box 4.1) is the output multiplier of that

sector. The higher the values of multipliers, the larger are the effects on the input-output system of the economy.

The output multiplier is called Type I output multiplier when only direct and indirect effects are considered. This is expressed as the ratio of direct and indirect output changes to the direct output change due to a unit increase in final demand. However, when induced effects are also added to direct and indirect effects by including household account in the Inverse Matrix, the multiplier so obtained is called Type II output multiplier. The household account refers to the column vector of household consumption and row vector of household income (or Compensation to Employees, CoE), and is therefore an extended matrix.

Type II multiplier is, therefore, expressed as the ratio of total output changes (direct + indirect + induced) to the direct output change due to a unit increase in final demand. In other words, multiplying a change in final demand for an industry's output by that industry's output multiplier (Type I and Type II) generates an estimate of direct + indirect effects (in case of Type I) and direct + indirect + induced effects (in case of Type II).

Similarly, the employment multiplier of a sector is used to derive the total number of jobs created in the economy for every additional job created in that sector. The Type I employment multiplier derives the number of jobs created due to its direct and indirect effects whereas Type II multiplier derives the same due to the inclusion of induced effects as well.

Further, GVA or income multiplier of a sector measures the total increase in GVA of the entire economy resulting from a direct change in GVA of that sector. Like output and employment multipliers, Type I GVA multiplier measures the direct and indirect effects and Type II includes the induced effect as well.

In essence, the output multiplier of a sector captures the changes in value of output in the entire economy with the change in output of that sector whereas GVA multiplier measures the change in GVA of the economy with the change in GVA of that sector. If the GVA to output ratio of a sector is close to the average ratio for all sectors put together, then output multiplier and GVA multiplier translate to a similar change in output and GVA. However, if this ratio is significantly different for the average ratio, the values of multiplier can also vary significantly.

The schematic structure and the concept of IO model is explained in Box 4.1

## Box 4.1: Input-Output Model

The IO table is the matrix representation of a nation's economy and depicts how the output of one industry is used as input in other industries, thereby making each industry dependent on other industries both as the user and as supplier. A row in an IO table shows the values in which an economic sector provides inputs to various other sectors and final uses. Final use refers to the sector's sales to households and government as their consumption expenditure; sector's use in fixed investment; and its net exports. On the other hand, a column shows the sector's inputs from other sectors and its primary inputs consisting of taxes less subsidies on production and the gross value-added comprising payments for labour, capital, land and imported inputs. The row total and the column total of a sector give its total value of output and hence are equal. The IO table with, say, 3 sectors is shown below:

| Sectors | Sectors | | | Final Demand | Gross Value of Output |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | $F_1$ | $X_1$ |
| 1 | $x_{11}$ | $x_{12}$ | $x_{13}$ | | |
| 2 | $x_{21}$ | $x_{22}$ | $x_{23}$ | $F_2$ | $X_2$ |
| 3 | $x_{31}$ | $x_{32}$ | $x_{33}$ | $F_3$ | $X_3$ |
| Primary Inputs | $P_1$ | $P_2$ | $P_3$ | | |
| Gross Value of Output | $X_1$ | $X_2$ | $X_3$ | | |

The above matrix represents the following set of 3 balance equations, representing the sector's sales to other sectors and final users.

$$x_{11} + x_{12} + x_{13} + F_1 = X_1$$
$$x_{21} + x_{22} + x_{23} + F_2 = X_2$$
$$x_{31} + x_{32} + x_{33} + F_3 = X_3$$

where $F_i$ is the final use or final demand.

Further, if $a_{ij}$ is the input coefficient and is denoted by $x_{ij}/X_j$, we get,

$$a_{11}X_1 + a_{12}X_2 + a_{13}X_3 + F_1 = X_1$$
$$a_{21}X_1 + a_{22}X_2 + a_{23}X_3 + F_2 = X_2$$
$$a_{31}X_1 + a_{32}X_2 + a_{33}X_3 + F_3 = X_3$$

In matrix notations, these equations can be written as:

$$AX + F = X$$
$$\text{or } (I\text{-}A)\,X = F$$
$$\text{or } X = (I\text{-}A)^{-1}\,F$$

Hence obtained inverse matrix is called Leontief inverse matrices after W. Leontief who introduced IO Analysis. These matrices reflect the direct and indirect effects of inter-industry linkages.

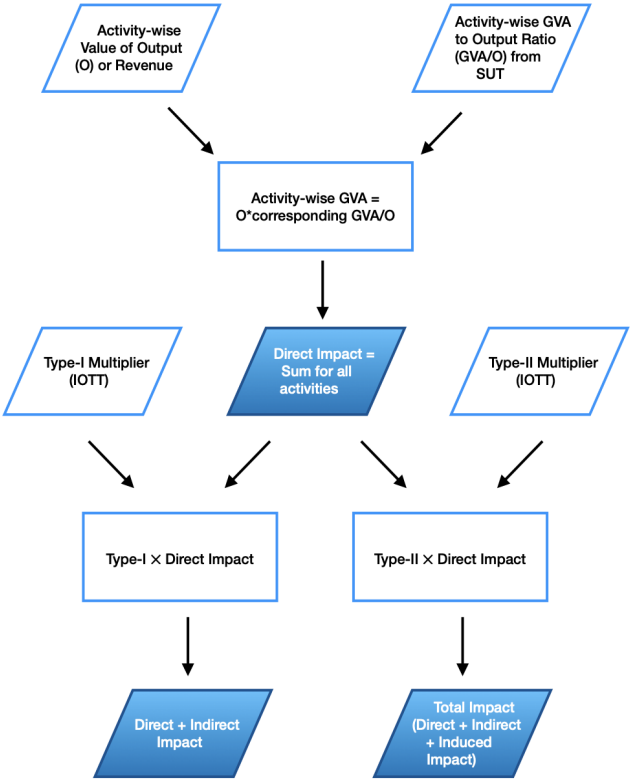
The following steps have been undertaken :

- National level IO table was prepared using the latest Supply and Use Table (SUT), published by Ministry of Statistics and Programme Implementation (MoSPI), for 2019–20. While the SUTs are the matrices with 140 products and 66 industries, these were converted to IO table with 64 × 64 dimension, each representing the transactions between 64 economic sectors.
- This IO table was updated for 2023–24, and the total impact was estimated for 2023–24 and 2024–25, the reference years for this study.
- The sectors in IO table were further aggregated based on their importance and relevance to the present study.
- The sectors which contribute significantly to the direct economic impact are Air Transport, Land Transport supporting transport services and petroleum products. Thus, these sectors were aggregated in the IO table and together constitute "Airport operations".
- The Leontief Inverse matrix was derived through the IO model analysis to generate the values of Type I multipliers for all other sectors including "Airport Operations".
- Another extended Leontief Inverse matrix was derived where the household account is endogenised into the IO framework. This was used to derive the values of Type II multipliers.

The catalytic impact has been discussed based on the secondary available data.

Figure 4.2 presents the process of deriving direct, indirect, and induced impacts. The direct impact is the total Gross Value Added generated by all the economic activities at the airport. Indirect and Induced impacts on output, GVA and employment are derived by multiplying their direct impact with their respective multipliers.

*Figure 4. 2: Approach to derive Economic Impact of the Airport*




## 4.3 Other Data Sources

This study estimates the economic impact of the RGIA through the methodology discussed in previous sections. The study also aims to estimate its contribution to state and national economies. For this, the Gross Domestic Product statements of India (GDP), and Telangana (GSDP) have been sourced from the official sources, that is, Ministry of Statistics and Programme Implementation (MoSPI), Government of India; and Directorate of Economic and Statistics (DES), Government of Telangana.

To estimate how airport jobs contribute to national and state employment, employment data has been sourced from the Periodic Labour Force Survey (PLFS) conducted annually by MoSPI. The PLFS provides employment figures at both national and state level.

# 5. ECONOMIC IMPACT ASSESSMENT

This chapter presents the estimates of the economic impact of RGIA and its contribution to the state and national economies. Three types of impacts have been estimated—direct, indirect, and induced. Each of these are presented below.

## 5.1 Direct Impact

### 5.1.1 Gross value added

To assess the direct impact, the detailed information on revenues generated by all the economic activities, which are directly related to the airport, were obtained for the years 2016–17 to 2024–25. These economic activities not just ensure the seamless movement of passengers and freight but also provide access to ancillary services within the airport, such as, retail, hospitality, safety, and security. Taken together, these activities act as a hub for regional development and connectivity. These activities include the activities which generate income for the developer of the airport (GHIAL), such as, Landing and Parking fee, User Development Fees (UDF) and Passenger Service Fee (PSF), Ground Handling fee, etc. In addition, the direct impact includes income earned by the activities that do so due to their location at the airport. These include income to the airlines which operate at the airport; income of Duty-free shops; MRO; Value of fuel uplift (income to the fuel company owing to the airport); Value of cargo; Parking fee; City transport (income to cabs owing to their operations to and from the airport); O&M and R&M services (income to companies providing these services); Utility services (income to distribution companies); and so on. These are listed as follows:

**Aeronautical:**

- Revenues to Domestic Airlines operating through RGIA
- Landing fee for allowing the carriers to operate their aircraft at the airport
- Parking fee for parking the aircraft more than the stipulated duration mentioned by the authorities
- User Development Fees (UDF) and Passenger Service Fee (PSF) levied by airports on passengers for facilitating their movement and for the provision of other

services at the airport

- ICT and IT services
- In-Flight Kitchen service
- Fuel Infrastructure charge
- Upkeep charges of Fuel Farm, the facility that stores, manages, and distributes fuel
- Value of Fuel uplift
- Cargo handled at the airport
- Ground Handling services—International passengers and cargo
- Ground Handling services—Domestic passengers and cargo
- Ground Handling services—Other services
- Maintenance, Repair, and Operations (MRO) charges
- Concession fee (fee paid to Airport Authority of India)
- Operator fee

**Non-Aeronautical:**

- Parking services
- Taxi services (app and airport taxi)
- Pushpak Bus service
- Food and Beverage serving outlets at the airport
- Retail shops other than F&B
- Advertising services
- Operating and maintenance services
- Miscellaneous services
- Electricity and water providing services
- Repairs and maintenance providing services
- Land & space rentals

- *Income from commercial property development*[12]

The summation of revenues of all of the above-mentioned activities is referred as the value of output of airport operations at the airport. However, the economic impact is measured in terms of Gross Value Added (GVA) generated by these economic activities. This GVA is used to estimate the contribution of the airport to the respective GVAs of national and state economies for the same year. While the estimated GVA of all the above-mentioned activities are presented in this section, the GVA against the commercial property development is presented in Section 5.3.

The GVA for each of the economic activities is derived by using the respective GVA to output ratios for these activities and applying these ratios on the revenues of corresponding activities. The GVA to output ratios were obtained from the latest available Supply and Use Table (SUT) for India. The SUTs are compiled and published by the Ministry of Statistics and Programme Implementation (MoSPI). These tables are a comprehensive representation of all the economic transactions that take place between various actors/sectors of an economy, resulting in income generation during a particular reference period. These also conform to the internationally standardized data compilation and collation framework.

These are two different but linked matrices with products and services presented in rows and industries in columns. There are a total of 140 products/services and 66 industries in both the tables/matrices. The Supply table records the products produced by the industries within an economic territory along with commodities imported into it. The Use table presents the demand or uses of the products by industries and final use across the product rows. For each of the 66 industries, the SUTs provide the Values of Output and their GVA.

The latest available SUT is for the year 2019–20. It is assumed that these ratios remain the same for the study reference year, 2024–25. While the industries related to airport operations are identified by the nature of their activities, the industries presented in SUTs are identified by their National Industrial Classification codes. Therefore, the industries or economic activities of the airport were mapped with the industries of the SUT to obtain the corresponding GVA to output ratios from SUTs. Some of the activities cannot be directly mapped with the SUT industries at the SUT level of disaggregation. For such activities,

[12] The Economic Impact Assessment of commercial property development or Airport Land Development (ALD) for 2022–23 has been done in the separate study conducted by NCAER. Based on that, the estimates for 2023–24 and 2024–25 are provided in Section 5.3 of this report.

GVA to output ratios have been sourced from the Annual Survey of Unincorporated Service Enterprises (ASUSE), conducted by the National Sample Survey Office (NSSO), MoSPI. The mapping of airport related activities with the SUT and ASUSE industries is provided in Table 5.1.

***Table 5.1: Mapping of airport related activities with SUT industries***

| Airport-related Activity | SUT Industry |
|---|---|
| Air Transport – Domestic | Air Transport |
| Air Transport – International | Air Transport |
| Services incidental to air transport (fuel through-put charges, Fuel farm, MRO, Aircraft Landing & Parking Fee, etc) | Service activities incidental to air transportation |
| Cargo handling | Cargo handling |
| Services incidental to road transport (parking fee) | Service activities incidental to land transportation |
| City Transport (app-based and private taxis, Pushpak service, private vehicles) | Road Transport |
| Food & Beverages providing services | Restaurants |
| Retail Trade | Retail Trade |
| Fuel uplift | Petroleum Products |
| ICT Services | Communication |
| Electricity, Gas & Water Supply | Electricity, Gas & Water Supply |
| Land & Space rentals | Real Estate activities |
| Other services | Other services |
| Government agencies | Public administration |

*Source: NCAER compilation*

Based on the information on revenues collected from GHIAL and based on corresponding GVA to output ratios for each activity, the direct impact of the airport operations has been estimated for 2024–25. Also added is the impact of construction activity owing to the expansion of the airport. This is estimated through the capital expenditure (capex) spent on the expansion. In order to derive the value of the income generated through this capex, capital to output ratio for relevant sectors at national level are taken from the National

Accounts Statistics.

Assuming the Capital to Output Ratio of "Construction" for expansion capex and of "Services incidental to transport" for general capex, the values of output have been estimated for each year. Further, the value added resulting from these values of output are derived using the corresponding sector's GVA to output ratios. The combined impact assessment is presented in Table 5.2. The estimates are also derived for the previous years, starting from two years after the state was formed, that is, from 2016–17 to 2023–24.

The estimates of direct impact for each year of the construction phase (2004–2008) and for the year 2009 have been obtained from the previous study on "Economic Impact Assessment of Hyderabad Rajiv Gandhi International Airport", conducted by NCAER in 2012.

The findings are summarised as below:

- RGIA generated the revenue of Rs 774 Cr during each year of the construction phase spanning between 2005–06 to 2007–08. This translated to the direct impact, in terms of GVA, to be Rs 464 Cr.
- In its operation phase in 2009, the revenue generated was of Rs 1844 Cr. In terms of GVA, this amounted to Rs 1106 Cr.
- Now in 2024–25, revenue generated at RGIA is estimated to have grown by over 16 times to Rs 29,995 Cr, recording a CAGR of over 20 per cent since 2009.
- This value was even higher at Rs 32,653 Cr in 2023–24, which was the final year of expansion project. The year 2024–25 does not involve comparable capital expenditure, hence the value of revenue generated is lower than that in 2023–24. Going forward, the data on future capex shows significant investment is expected again in the years 2026–27 and onwards.
- The GVA is estimated to be Rs 9723 Cr in 2023–24, the highest value since 2016–17. The same for 2024–25 is estimated to be Rs 8736 Cr. This translates to a CAGR of nearly 15 per cent since 2009.
- The value of state GVA is available till 2023–24 and is reported to be Rs 13.4 lakh crore. Assuming the growth of 10 per cent in nominal terms, the GVA for 2024–25 is estimated to be Rs 14.7 lakh crore.
- Therefore, it is estimated that RGIA contributed 0.73 per cent to the state GVA in

2023–24 and 0.59 per cent in 2024–25, as its direct impact.[13]

- With respect to national economy, RGIA's contribution is estimated to be 0.035 per cent and 0.029 per cent for 2023–24 and 2024–25 respectively. Table 5.2 provides the values of output and estimated GVA for each economic activity at RGIA.

***Table 5.2: Values of Output and GVA for each economic activity at RGIA, 2024–25(Rs Cr)***

| | Value of Output | GVA |
|---|---|---|
| Air Transport | 12482 | 2399 |
| Supporting Transport Services – Air | 1555 | 1029 |
| Cargo Handling | 522 | 264 |
| Supporting Transport Services – Land | 152 | 58 |
| City Transport | 1923 | 835 |
| F&B Services | 377 | 134 |
| Retail Trade | 1024 | 761 |
| Petroleum Products | 5264 | 520 |
| Communication | 122 | 49 |
| Electricity, Gas and Water Supply | 50 | 22 |
| Real Estate Activities | 84 | 48 |
| Repair and Maintenance | 118 | 37 |
| Other Services | 336 | 193 |
| Public Administration | 94 | 73 |
| Construction (Expansion) | 5891 | 2313 |
| **Total** | **29995** | **8736** |

*Source: NCAER computation*

The estimates for Output and GVA have also been derived for the previous years, that is, 2016–17 to 2022–23. For the components for which past series were not available, it is assumed that the values of output for these components increased or decreased in proportion to the corresponding change in number of domestic passengers at the airport. Table 5.3 provides the time series of these estimates, along with RGIA's shares in state

[13] It should be noted that the share of Air Transport's GVA to total GVA (both at current prices) is much lower in the GDP series with base year 2011–12, as compared with the series with base year 2004–05. Similarly, GVA to output ratios are also much lower. In the previous study (2012) the GVA to output ratio considered for Air Transport was sourced from old series of GDP (Base: 2004–05) whereas this study has obtained the ratio from current series (Base: 2011–12). A lower ratio on Air Transport's revenue, which is the most significant component of the airport-related activities, has resulted in a lower value of GVA for Air Transport.

and national-level GVA. The key highlights are:

- Between 2016–17 and 2022–23, RGIA's share in state economy peaked in 2019–20, when it contributed 1.07 per cent to state GVA (both valuated at current prices). Its share in national GVA was 0.051 per cent in this year. In value terms, RGIA generated the GVA of Rs 9349 Cr in this year.
- With several travel-related restrictions during the pandemic year of 2020–21, the GVA generated by RGIA dropped to Rs 6794 Cr in this year. The state economy also saw a decline but the loss to the transport sector was unprecedented. However, the huge investment in expansion/construction activities during this year helped in offsetting the adverse impact to a great extent. As a result, the share of RGIA in state GVA in 2020–21 fell to just 0.78 per cent.
- The rebound in transport sector and in the airport economy in the following years, however, was much sharper than that in state economy but the capex for expansion activities saw a moderation. The resultant values of GVA in each year and their share in state as well as national GVA are presented below.

*Table 5.3: Direct economic impact of RGIA (in nominal terms)*

| | Value of Output (Rs Cr) | GVA (Rs Cr) | Employment | State GVA (Rs Cr) | % share in State GVA | India GVA (Rs Cr) | % share in India GVA |
|---|---|---|---|---|---|---|---|
| Airport construction phase (2004–08)[14] | 774 | 464 | 9317 | 133417 | 0.35 | 4040179 | 0.011 |
| 2009[15] | 1844 | 1106 | 13485 | 203508 | 0.54 | 6108903 | 0.018 |
| 2016–17[16] | 10075 | 3095 | 11,234 | 600186 | 0.52 | 13965200 | 0.022 |
| 2017–18 | 12242 | 3694 | 13,263 | 680177 | 0.54 | 15505665 | 0.024 |
| 2018–19 | 23693 | 7577 | 30,704 | 776946 | 0.98 | 17175128 | 0.044 |
| 2019–20 | 28900 | 9349 | 37,681 | 869773 | 1.07 | 18381117 | 0.051 |

[14] State GVA in this case is the derived average of Telangana GVA, as estimated by MoSPI, for the period 2004–05 to 2008–09, at 2004–05 base year.

[15] State GVA in this case is derived GVA for Telangana for 2009–10, as estimated by MoSPI, at 2004–05 base year.

[16] For the years 2016–17 onwards, the base year for state and national GVA is 2011–12.

| | Value of Output (Rs Cr) | GVA (Rs Cr) | Employment | State GVA (Rs Cr) | % share in State GVA | India GVA (Rs Cr) | % share in India GVA |
|---|---|---|---|---|---|---|---|
| 2020–21 | 19334 | 6794 | 30,223 | 868953 | 0.78 | 18210997 | 0.037 |
| 2021–22 | 21942 | 7171 | 29,184 | 1030300 | 0.70 | 21635584 | 0.033 |
| 2022–23 | 29679 | 8642 | 35,447 | 1197295 | 0.72 | 24646698 | 0.035 |
| 2023–24 | 32653 | 9723 | 40,887 | 1340496 | 0.73 | 27412888 | 0.035 |
| 2024–25 | 29995 | 8736 | 39,542 | 1474546 | 0.59 | 30022033 | 0.029 |

*Source: NCAER computation*

- The growth in RGIA's GVA and state GVA can be best realized when presented at constant prices or in real terms. The series of RGIA's GVA at constant price has been derived using the GVA deflator for Air Transport sector (for airport operations impact) and Construction sector (for capex impact) in Telangana's economy (Figure 5.1).
- The state economy decreased by 5.7 per cent during 2020–21 whereas RGIA airport economy shrank by up to 27.5 per cent, taking a tremendous toll from the pandemic. The following two years saw a notable turnaround and the growth seems to be nearly normalised in 2023–24.

***Figure 5.1: Annual growth in RGIA GVA and State GVA (%)***


*Source: NCAER computation*

### 5.1.2 Employment

With regard to employment, data were gathered from GHIAL on number of persons employed in all the economic activities at the airport, including both regular and contractual staff. These activities include cargo operations, ground handling activities, duty-free shops, MRO, concessionaires, fuel farm activities, security, GHIAL itself, and expansion activities. The data for all the activities were obtained for 2023–24 and 2024–25.

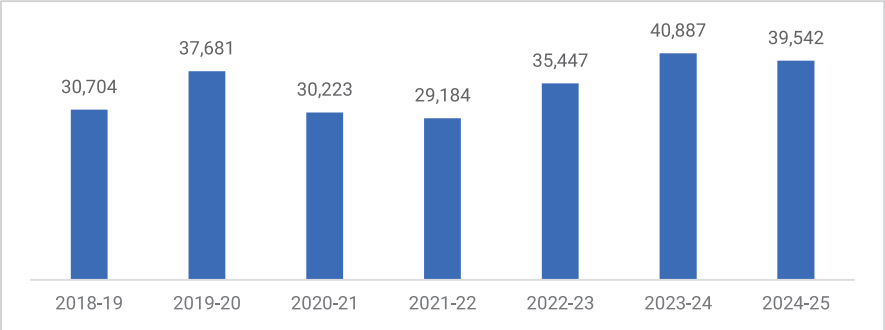
The past series of employment numbers for such activities were imputed using the annual growth in appropriate parameters, such as, values of fuel farm output for employment in fuel farm; values of ground handling output for employment in ground handling services; and number of passengers arriving/departing the airport for employment in concessionaires, security and taxi drivers.

It is estimated that airport operations created employment for around 25,000 persons in 2023–24 and around 29,500 in 2024–25. The employment generated due to expansion activities has been estimated using national-level GVA per worker for construction sector (GVA for Construction sector sourced from NAS-2025 and Employment numbers sourced from PLFS survey, MoSPI). Hence derived estimated employment, including employment generated due to expansion activities, works out to be 40,887 for 2023–24 and 39,542 for 2024–25.

This is the direct impact of RGIA on the employment. With estimated state employment at 2.4 crore and national employment at 76.0 crore in these years, RGIA is estimated to contribute 0.17 per cent to the state employment and 0.005 per cent to the national employment in 2023–24. These shares are estimated to be 0.16 per cent and 0.005 per cent respectively in 2024–25.

The annual time series of employment from 2016–17 to 2024–25 is presented in Figure 5.2. This shows that employment at the airport was on a swiftly increasing trend till 2019–20 but the outbreak of the pandemic took a huge toll on employment as well.

*Figure 5.2: Direct employment at RGIA*




*Source: NCAER computation*

### 5.1.3 Property Tax

The impact of Airport is also due to the property tax that it pays to the government. Property tax is the tax paid annually by the property/land owners to the local government or the municipal corporation of the area. The data on property tax was obtained from GHIAL. For the reference year, 2024–25, the property tax paid to the government is Rs. 7.72 Cr.

## 5.2 Indirect and Induced Impact

As explained in the methodology chapter, in addition to the direct impact, every economic activity has an indirect impact on the economy, which is on account of the inter-linkages with the industries in its supply chain. The same is true for airport operations too. The direct impact, as mentioned earlier, results from the activities directly related to airport operations like airline operations, ground-based infrastructure activities, concessionaires, etc. The indirect impact results from the purchases of goods and services made by the directly-related activities at the airport.

Hence, if the demand for airport services increases through an increase in the number of passengers or number of flights, then the output of directly related activities is bound to increase to meet the increased demand. This is the direct impact. In addition to this, economic activity is triggered among all the industries which fall in its supply chain, where each industry is both input provider and input consumer. Such an impact, resulting from the inter-linkages among the industries by way of purchasing or selling goods and services, is called indirect impact.

Also called Type I multipliers, these can be interpreted as the cumulative increase in the output of the economy, including both direct and indirect impact of the sector. The higher the multipliers, the larger are the effects on the IO system of the economy.

For this study, the Type I multipliers for the airport economy have been derived separately for output, GVA, and employment. The value of Type I Output multiplier works out to be 2.38; GVA multiplier is 3.72; and Employment multiplier is 4.18. This means that for every one unit increase in final demand in the airport sector, a total of 2.38 units of increase is expected in the total value of output of the entire economy; and for every one unit increase in the GVA (or income) of the airport sector, a total of 3.72 units of GVA is generated in the economy. Further, for every one job created in the sector, a total of 4.18 jobs are created in the economy. All of these result as the additional activities is triggered in the entire supply chain, owing to the inter-linkages among the economic sectors.

Further, in addition to the indirect effects, there are induced effects on output, gross value added and employment which are triggered by the successive rounds of spending by the employees and their families. In response to the direct and indirect effects, the level of household income increases and a proportion of this increased income is re-spent on consumption of goods and services, further giving a push to the overall economic activity. This is called the induced effect and is measured through the generation of Type II multipliers.

Like Type I, this study has derived the Type II multipliers also separately for output, GVA and employment. The value of Type II Output multiplier works out to be 5.00; GVA multiplier is 7.82; and Employment multiplier is 8.75. These multipliers capture the induced effects of the airport sector, besides its direct and indirect effects. These multipliers, when multiplied with the direct values of output, GVA, and employment respectively, derive the total impact of the entire ambit of the airport sector.

The total estimated economic impact of RGIA for 2024-25 is presented in the tables below.

*Table 5.4a: Total Economic Impact of RGIA, 2024-25*

| | Value of Output Rs Crore | Gross Value Added Rs Crore | Employment Number of jobs |
|---|---|---|---|
| RGIA | 29995 | 8736 | 39,542 |
| Type I Multiplier | 2.38 | 3.72 | 4.18 |
| Type II Multiplier | 5.00 | 7.82 | 8.75 |
| Direct + Indirect | 71410 | 32476 | 165192 |
| Direct + Indirect + Induced | 149947 | 68285 | 345911 |

*Table 5.4b: RGIA contribution to state and national economies*

| | GVA | Employment |
|---|---|---|
| Rs. Cr | | |
| Direct | 8736 | 39,542 |
| Direct + Indirect | 32476 | 165192 |
| Direct + Indirect + Induced | 68285 | 345911 |
| % to State | | |
| Direct | 0.59 | 0.16 |
| Direct + Indirect | 2.20 | 0.68 |
| Direct + Indirect + Induced | 4.63 | 1.42 |
| % to India | | |
| Direct | 0.03 | 0.005 |
| Direct + Indirect | 0.11 | 0.022 |
| Direct + Indirect + Induced | 0.23 | 0.045 |

*Source: NCAER computation*

## 5.3 Economic Impact of Income from Commercial Property Development

Besides the aeronautical and non-aeronautical revenues of the airport included in the estimates of its economic impact discussed in the previous sections, another substantial component of the economic impact and employment comes from the commercial property development, known as Airport Land Development (ALD) or GMR Aerocity region around the airport. The economic impact of this region for the reference year 2022–23 has been estimated in a separate study conducted by NCAER (Refer "Economic Impact Assessment of GMR Aerocities in Delhi, Hyderabad, and Goa", NCAER. 2025). The report also forecasts projections for the later years, till FY33.

The economic impact of ALD is derived by estimating the income and subsequent GVA generated by the developers of the assets and the tenants housed in these assets. The developers for Hyderabad location are GHAL (GMR Hyderabad Aerotropolis Limited); GHASL (GMR Hyderabad Aviation SEZ Limited); and GHRL (GMR Hospitality and Retail Limited).

The assets within GHAL are GMR Aero Towers 1 and 2; Cargo Satellite Building (CSB) & Cargo Satellite Building Extension (CSBX); and Other Miscellaneous Assets. GHASL is the development entity for GMR Aerospace & Industrial Park SEZ spread over approximately 270 acres land, and provides 'ready-to-use' infrastructure to its customers. GHRL was

established for the development and operations of the Hospitality and Retail activities in the Hyderabad Aerocity.

Besides, there are new developments which add to the economic impact. In all, GMR Aerocity at Hyderabad is estimated to have generated the income of Rs 4616 Cr in 2023–24, which translates to the GVA of Rs. 1774 Cr for the same year. This is the direct economic impact of the Aerocity in terms of GVA generation. For 2024–25, the Aerocity is estimated to have generated the income of Rs 5950 Cr and GVA of Rs 2286 Cr.

With regard to employment, the number of persons employed is estimated to be 19,803 in 2023–24 and 21,297 in 2024–25.

For the indirect and induced impact, given the nature of economic activities at the Aerocity, a number of sectors have been aggregated for Hyderabad to represent the Aerocity sector in the IO Table. These sectors are:

- Manufacture of electronic component
- Manufacture of machinery and equipment
- Manufacture of transport equipment
- Manufacture of pharmaceutical products
- Construction
- Supportive and auxiliary transport activities, like cargo handling
- Storage and warehousing
- Trade
- Hotels and restaurants
- Financial services, like banks
- Education and research
- Medical and Health
- Computer related services
- Business Services
- Real Estate Services

Hence obtained Type I multiplier is 2.1628 and Type II multiplier is 3.0744.

*Table 5.5: Total economic impact of GMR Aerocity, 2024–25*

| | GVA | Employment |
|---|---|---|
| Rs Cr | | |
| Direct | 2286 | 21297 |
| Direct + Indirect | 4944 | 46061 |
| Direct + Indirect + Induced | 7028 | 65475 |
| % to State | | |
| Direct | 0.16 | 0.09 |
| Direct + Indirect | 0.34 | 0.19 |
| Direct + Indirect + Induced | 0.48 | 0.27 |
| % to India | | |
| Direct | 0.01 | 0.003 |
| Direct + Indirect | 0.02 | 0.006 |
| Direct + Indirect + Induced | 0.02 | 0.009 |

*Source: NCAER computation*

Since the economic activities at the airport and in the Aerocity are independent of each other, the simple addition of their economic impact represents the consolidated economic impact of the entire airport ecosystem.

*Table 5.6 Consolidated economic impact of RGIA ecosystem, 2024–25*

| | GVA | Employment |
|---|---|---|
| Rs. Cr | | |
| Direct | 11022 | 60839 |
| Direct + Indirect | 37420 | 211253 |
| Direct + Indirect + Induced | 75314 | 411386 |
| % to State | | |
| Direct | 0.75 | 0.25 |
| Direct + Indirect | 2.54 | 0.87 |
| Direct + Indirect + Induced | 5.11 | 1.69 |
| % to India | | |
| Direct | 0.04 | 0.008 |
| Direct + Indirect | 0.12 | 0.028 |
| Direct + Indirect + Induced | 0.25 | 0.054 |

*Source: NCAER computation*

# 6. FUTURE PROJECTIONS AND GROWTH PROSPECTS

Hyderabad's Rajiv Gandhi International Airport (RGIA) has emerged as one of the leading airports in India, particularly noted for its rapid growth in passenger traffic. In FY24, RGIA handled approximately 25 million passengers, marking a significant increase from previous years and positioning it as the fourth busiest airport in the country. This growth trajectory reflects Hyderabad's expanding role as a major hub for both domestic and international travel. The airport has maintained an impressive annual growth rate, with a notable rise in international traffic due to enhanced connectivity and the introduction of new routes by various airlines.

This growth aligns closely with Telangana's robust economic performance. The state's Gross State Domestic Product (GSDP) grew from ₹5.05 lakh crore in 2014–15 to ₹15.01 lakh crore in 2023–24, representing a remarkable 196.9% increase in nominal terms.

Literature indicates a strong correlation between economic growth and the demand for air travel. Economic growth, measured by the increase in Gross Domestic Product (GDP), often leads to higher disposable income, which in turn drives air travel demand, reflected in the growth in passenger traffic. This relationship has been well-established for several countries, including Germany, the USA, Russia, China, and Brazil (Fernandes, E. and Pacheco, R., 2010).

Various studies suggest a unidirectional causal relationship between economic growth and domestic air transport demand, with high short-term elasticity. Other aviation studies also highlight that air passenger traffic is influenced by factors such as industrial development, employment opportunities, and tourism growth — all of which are closely linked to economic growth.

This study estimates the future growth trajectory of RGIA using the passenger forecasts provided by GHIAL to derive the direct, indirect, and induced contributions of RGIA to the economy in the coming years.

## 6.1 Passenger Traffic Forecast

To project future passenger traffic, we have utilized actual domestic and international air passenger data from the Airports Authority of India (AAI), while the projected passenger traffic data has been sourced from GHIAL (Table 6.1).

*Table 6.1: Passenger traffic forecasts for RGIA (in million) (FY25 to FY38)*

| Year | Domestic Passenger | International Passenger | Total Passenger |
|---|---|---|---|
| 2015–16 | 9.2 | 3.2 | 12.4 |
| 2016–17 | 11.7 | 3.4 | 15.1 |
| 2017–18 | 14.5 | 3.7 | 18.2 |
| 2018–19 | 17.4 | 4.0 | 21.4 |
| 2019–20 | 17.7 | 3.9 | 21.7 |
| 2020–21 | 7.5 | 0.6 | 8.0 |
| 2021–22 | 11.0 | 1.4 | 12.4 |
| 2022–23 | 17.6 | 3.4 | 21.0 |
| 2023–24 | 20.8 | 4.2 | 25.0 |
| 2024–25 | 24.4 | 5.1 | 29.5 |
| ***2025–26*** | **27.43** | **5.62** | **33.05** |
| ***2026–27*** | **30.60** | **6.30** | **36.90** |
| ***2027–28*** | **33.10** | **7.20** | **40.30** |
| ***2028–29*** | **36.40** | **8.20** | **44.60** |
| ***2029–30*** | **38.55** | **9.25** | **47.80** |
| ***2030–31*** | **41.20** | **10.30** | **51.50** |
| ***2031–32*** | **45.20** | **11.20** | **56.40** |
| ***2032–33*** | **49.50** | **12.10** | **61.60** |
| ***2033–34*** | **54.25** | **13.15** | **67.40** |
| ***2034–35*** | **59.50** | **14.30** | **73.80** |
| ***2035–36*** | **63.11** | **15.17** | **78.28** |
| ***2036–37*** | **66.95** | **16.10** | **83.04** |
| ***2037–38*** | **71.01** | **17.08** | **88.09** |
| **CAGR (%)** | | | |
| **FY25 to FY38** | 8.6 | 9.7 | 8.8 |

RGIA Airport's total traffic is projected to be around 88 million by FY38 with the number of domestic passengers to be around 71 million. Thus, the compound annual growth rate (CAGR) from FY25–FY38 comes out to be 8.6 per cent for domestic passengers and 9.7 per cent for international passengers, leading to an overall CAGR to be 8.8 per cent.

## 6.2 Freight Traffic Forecast

Similarly, for freight forecasting, actual freight data has been obtained from AAI, and the projected freight volumes have been sourced from GHIAL. (Table 6.2).

*Table 6.2: Freight traffic forecasts for RGIA (FY25 to FY38) (in thousand metric ton)*

| Year | Domestic Freight | International Freight | Total Freight |
|---|---|---|---|
| 2015–16 | 50.5 | 59.6 | 110.0 |
| 2016–17 | 52.9 | 68.9 | 121.9 |
| 2017–18 | 55.0 | 79.2 | 134.1 |
| 2018–19 | 60.2 | 84.0 | 144.1 |
| 2019–20 | 61.4 | 82.5 | 143.9 |
| 2020–21 | 46.8 | 64.0 | 110.8 |
| 2021–22 | 64.5 | 75.5 | 140.1 |
| 2022–23 | 67.0 | 75.4 | 142.4 |
| 2023–24 | 69.0 | 80.8 | 149.8 |
| *2024–25* | 72.8 | 109.7 | 182.5 |
| ***2025–26*** | **77.8** | **121.9** | **199.7** |
| ***2026–27*** | **83.1** | **135.7** | **218.8** |
| ***2027–28*** | **88.7** | **151.3** | **240.0** |
| ***2028–29*** | **94.4** | **167.6** | **262.0** |
| ***2029–30*** | **100.3** | **185.7** | **286.0** |
| ***2030–31*** | **106.6** | **205.9** | **312.5** |
| ***2031–32*** | **113.4** | **226.9** | **340.3** |
| ***2032–33*** | **120.5** | **249.7** | **370.2** |
| ***2033–34*** | **128.0** | **274.8** | **402.8** |
| ***2034–35*** | **136.0** | **300.7** | **436.7** |
| ***2035–36*** | **140.5** | **322.1** | **462.2** |
| ***2036–37*** | **145.1** | **345.0** | **489.1** |
| ***2037–38*** | **149.8** | **369.6** | **517.7** |
| | **CAGR (%)** | | |
| FY25 to FY34 | 5.7 | 9.8 | 8.4 |

With respect to freight, the overall CAGR for the forecasted period (FY25 to FY38) works out to be 8.4 per cent led by demand for freight capacity of 517.7 thousand metric tons in the year FY38.

## 6.3 Projection of Direct, Indirect, and Induced Economic Impact

The values of GVA generated by RGIA for the future years have been projected using value-added to passenger ratio of 2024–25, considering this as the "base year" for the projections. This ratio works out to be Rs 2200. This means that with every one passenger added, an additional Rs 2200 of GVA is generated. While this ratio is likely to increase over a period of time with the likely technology advancements and other innovative developments, but it is assumed that this remains the same for the projected period.

For the next 13 years, the value-added to passenger ratio is applied on the projected traffic numbers to estimate the projected value-added contribution of airport operations.

Moreover, there are also additional investments planned to be undertaken at the airport during 2025–26 to 2037–38. These include capital expenditure (capex) for expansion of the airport and also general capex required for regular operations of the airport. The expansion capex is for the northern precinct development and is planned to accommodate the traffic growth forecasted. As per the capex data provided by GMR, the expansion capex is planned to be undertaken between 2025–26 and 2032–33 and amounts to Rs 12,340 Cr. The general capex till 2037–38 is about Rs 4128 Cr. This capex is also expected to generate additional income at the airport. In order to derive the value of this income, capital to output ratio for relevant sectors at national level are taken from the National Accounts Statistics.

Assuming the Capital to Output Ratio of "Construction" for expansion capex and of "Services Incidental to Transport" for general capex, the values of output have been estimated for each year. Further, the value added resulting from these values of output are derived using the corresponding sector's GVA to output ratios. The derived GVA due to capex is added to the direct GVA, as estimated in Table 6.3. The indirect and induced impacts are also estimated using the Type I and Type II multipliers. The direct GVA is estimated to increase to Rs 19,509 Cr by 2037–38. When considering direct and indirect contributions, which include the ripple effects on related industries such as aviation services, logistics, and supply chains, the impact is even greater. This figure rises from Rs 32,476 crores in FY25 to Rs 72,526 crores in FY38.

Finally, the total contribution (direct + indirect + induced) accounts for the broader economic effects, including increased household income and spending resulting from airport-driven employment and business activity. The total impact is projected to grow from Rs 68,285 crores in FY25 to Rs 1,52,496 crores in FY38, highlighting RGIA's crucial role in regional and national economic growth.

*Table 6.3: Projection of direct, indirect, and induced value-added contribution of RGIA operations (FY26 to FY38) (Rs crore)*

| | Direct | Capex Impact | Total Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|---|---|
| **2024–25** | **6,423** | **2,313** | **8,736** | **32,476** | **68,285** |
| 2025–26 | 7,039 | 1,465 | 8,503 | 31,611 | 66,468 |
| 2026–27 | 7,896 | 6,635 | 14,531 | 54,021 | 1,13,588 |
| 2027–28 | 8,754 | 14,227 | 22,982 | 85,436 | 1,79,643 |
| 2028–29 | 9,502 | 18,325 | 27,827 | 1,03,451 | 2,17,521 |
| 2029–30 | 10,162 | 9,376 | 19,538 | 72,634 | 1,52,724 |
| 2030–31 | 10,910 | 607 | 11,516 | 42,814 | 90,022 |
| 2031–32 | 12,032 | 837 | 12,869 | 47,842 | 1,00,595 |
| 2032–33 | 13,044 | 871 | 13,914 | 51,728 | 1,08,766 |
| 2033–34 | 14,209 | 927 | 15,136 | 56,271 | 1,18,318 |
| 2034–35 | 15,441 | 964 | 16,405 | 60,988 | 1,28,237 |
| 2035–36 | 16,321 | 1,003 | 17,324 | 64,402 | 1,35,416 |
| 2036–37 | 17,267 | 1,043 | 18,310 | 68,068 | 1,43,123 |
| 2037–38 | 18,257 | 1,252 | 19,509 | 72,526 | 1,52,496 |

The projections of commercial property development or ALD till FY33 are discussed in detail and provided in the report, "Economic Impact Assessment of GMR Aerocities in Delhi, Hyderabad, and Goa", NCAER, 2025. Table 6.4 presents these projections, which have been extrapolated till 2037–38 for this report. The aerocity is estimated to add another Rs 5453 Cr in 2023–24 as its total impact after including direct, indirect as well as induced effects. This is estimated to increase to Rs 60,851 Cr. by 2037–38.

*Table 6.4: Projection of direct, indirect, and induced value-added contribution of GMR Aerocity, Hyderabad (FY26 to FY38) (Rs crore)*

| | Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|
| **2024–25** | **2,286** | **4,944** | **7,028** |
| 2025–26 | 3,303 | 6,029 | 8,648 |
| 2026–27 | 4,991 | 9,110 | 13,069 |
| 2027–28 | 6,028 | 11,003 | 15,784 |
| 2028–29 | 6,770 | 12,358 | 17,728 |
| 2029–30 | 7,697 | 14,050 | 20,155 |
| 2030–31 | 8,715 | 15,908 | 22,820 |
| 2031–32 | 9,899 | 18,069 | 25,920 |
| 2032–33 | 11,186 | 20,418 | 29,289 |
| 2033–34 | 12,759 | 23,290 | 33,410 |
| 2034–35 | 14,637 | 26,717 | 38,326 |
| 2035–36 | 16,911 | 30,868 | 44,280 |
| 2036–37 | 19,714 | 35,985 | 51,620 |
| 2037–38 | 23,239 | 42,420 | 60,851 |

*Table 6.5: Projection of Consolidated Economic Impact of RGIA ecosystem (FY26 to FY38) (Rs crore)*

| | Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|
| **2024–25** | **11,022** | **37,420** | **75,314** |
| 2025–26 | 11,806 | 37,640 | 75,116 |
| 2026–27 | 19,522 | 63,132 | 1,26,657 |
| 2027–28 | 29,010 | 96,440 | 1,95,427 |
| 2028–29 | 34,598 | 1,15,809 | 2,35,249 |
| 2029–30 | 27,235 | 86,684 | 1,72,879 |
| 2030–31 | 20,231 | 58,721 | 1,12,842 |
| 2031–32 | 22,768 | 65,911 | 1,26,516 |
| 2032–33 | 25,100 | 72,146 | 1,38,055 |
| 2033–34 | 27,896 | 79,562 | 1,51,729 |
| 2034–35 | 31,042 | 87,705 | 1,66,563 |
| 2035–36 | 34,234 | 95,270 | 1,79,696 |
| 2036–37 | 38,023 | 1,04,052 | 1,94,743 |
| 2037–38 | 42,748 | 1,14,945 | 2,13,347 |

## 6.4 Projections of Direct, Indirect and Induced Employment Impact

In order to make the projections for the employment that is likely to be created both at the airport and in the Aerocity, the GVA to worker ratio (approx. Rs 21.8 lakh) is assumed to remain the same for the future years. Hence, number of employees are assumed to grow in tandem with the growth in the income and subsequent value addition. Besides, the employment is expected to be generated due to expansion activities, as reflected in the capex values.

The projected estimates of employment resulting from the airport operations (including expansion activities), for the years 2025–26 till 2037–38, are presented in Table 6.6. Table 6.7 provides the projected estimates of employment at the Aerocity for the same period. This is followed by Table 6.8 with consolidated projected estimates of employment for the entire airport ecosystem.

*Table 6.6: Projection of direct, indirect and induced employment contributions of RGIA operations (FY25 to FY38) (number)*

| | Direct | Capex Impact | Total Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|---|---|
| **2024–25** | 29,449 | 10,094 | 39,542 | 1,65,192 | 3,45,911 |
| 2025–26 | 32,273 | 7,534 | 39,806 | 1,66,295 | 3,48,221 |
| 2026–27 | 36,206 | 25,039 | 61,245 | 2,55,858 | 5,35,764 |
| 2027–28 | 40,139 | 51,609 | 91,748 | 3,83,287 | 8,02,601 |
| 2028–29 | 43,568 | 65,875 | 1,09,443 | 4,57,209 | 9,57,391 |
| 2029–30 | 46,593 | 33,891 | 80,484 | 3,36,232 | 7,04,066 |
| 2030–31 | 50,022 | 3,388 | 53,410 | 2,23,128 | 4,67,227 |
| 2031–32 | 55,166 | 4,677 | 59,843 | 2,50,000 | 5,23,499 |
| 2032–33 | 59,805 | 4,864 | 64,669 | 2,70,163 | 5,65,718 |
| 2033–34 | 65,150 | 5,178 | 70,329 | 2,93,805 | 6,15,225 |
| 2034–35 | 70,798 | 5,385 | 76,183 | 3,18,264 | 6,66,443 |
| 2035–36 | 74,832 | 5,601 | 80,433 | 3,36,017 | 7,03,616 |
| 2036–37 | 79,169 | 5,825 | 84,994 | 3,55,070 | 7,43,513 |
| 2037–38 | 83,707 | 6,994 | 90,701 | 3,78,914 | 7,93,442 |

*Table 6.7: Projection of direct, indirect, and induced employment in GMR Aerocity, Hyderabad (FY25 to FY38) (number)*

| | Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|
| **2024–25** | **21,297** | **46,061** | **65,475** |
| 2025–26 | 23,697 | 43,255 | 62,050 |
| 2026–27 | 25,434 | 46,426 | 66,598 |
| 2027–28 | 27,842 | 50,821 | 72,903 |
| 2028–29 | 28,172 | 51,424 | 73,768 |
| 2029–30 | 32,655 | 59,607 | 85,507 |
| 2030–31 | 36,658 | 66,914 | 95,989 |
| 2031–32 | 40,662 | 74,222 | 1,06,471 |
| 2032–33 | 44,665 | 81,529 | 1,16,953 |
| 2033–34 | 49,142 | 89,702 | 1,28,678 |
| 2034–35 | 54,069 | 98,694 | 1,41,577 |
| 2035–36 | 59,489 | 1,08,588 | 1,55,770 |
| 2036–37 | 65,452 | 1,19,474 | 1,71,385 |
| 2037–38 | 72,014 | 1,31,450 | 1,88,566 |

*Table 6.8: Projection of Consolidated Employment of RGIA ecosystem (FY26 to FY38) (number)*

| | Total Direct | Direct + Indirect | Direct + Indirect + Induced |
|---|---|---|---|
| **2024–25** | **60,839** | **2,11,253** | **4,11,386** |
| 2025–26 | 63,503 | 2,09,550 | 4,10,271 |
| 2026–27 | 86,679 | 3,02,284 | 6,02,362 |
| 2027–28 | 1,19,590 | 4,34,108 | 8,75,504 |
| 2028–29 | 1,37,615 | 5,08,633 | 10,31,159 |
| 2029–30 | 1,13,139 | 3,95,839 | 7,89,573 |
| 2030–31 | 90,068 | 2,90,042 | 5,63,216 |
| 2031–32 | 1,00,505 | 3,24,222 | 6,29,970 |
| 2032–33 | 1,09,334 | 3,51,692 | 6,82,671 |
| 2033–34 | 1,19,471 | 3,83,507 | 7,43,903 |
| 2034–35 | 1,30,252 | 4,16,958 | 8,08,020 |
| 2035–36 | 1,39,922 | 4,44,605 | 8,59,386 |
| 2036–37 | 1,50,446 | 4,74,544 | 9,14,898 |
| 2037–38 | 1,62,715 | 5,10,364 | 9,82,008 |

# 7. QUALITATIVE PERSPECTIVE FROM INDUSTRY EXPERTS

Other than the economic impact in terms of generation of income and employment, which have been discussed in previous sections of the report, the RGIA airport is impacting the operations and growth of businesses located in Hyderabad. Being an international airport with world-class infrastructure, following are the main areas in which the airport impacts these businesses:

- Provides easy connectivity with other cities and countries for business trips (RGIA has the fourth highest number of unique city connections among Indian airports)
- Facilitates and promotes international trade through cargo terminal
- Helps in efficient Supply Chain Management for manufacturing units in and around Hyderabad
- Forms part of world-class infrastructure along with roads, expressways, etc.
- Attracts the best talent for employment from across the world (with major technology companies having their offices in Hyderabad, including Google, Microsoft, Amazon, etc and the new wave of Global Capability Centres)
- Provides infrastructure for organizing international/national meetings, conventions, exhibitions in the city (example, Hyderabad recently hosted the Miss World 2025 global competition),
- The airport even promotes foreign investment to the city and the state as it provides the first glimpse of the city/state infrastructure to an investor on arriving in Hyderabad.

As part of this study, these qualitative impacts have been assessed through the Key Informant Interviews with the top-management of some of the companies located in Hyderabad. These companies are AIG Hospitals; Dr. Reddy's Laboratories Ltd; and Cohance Lifesciences.

**AIG Hospitals** is a unit of Asian Institute of Gastroenterology, India's foremost Gastroenterology hospital. Spread across 1.4 million square feet, AIG Hospitals is a state-of-the-art 800-bed super specialty Hospital located in Hyderabad, which is among the largest hospitals in the country today. The hospital has been witnessing a huge surge in medical tourist arrivals and, to a great extent, owes this to the presence of an international airport. Box 7.1 is a snapshot of an interview with Dr. D Nageshwar Reddy, Chairman of AIG Hospitals and recipient of all three Padma Awards (Padma Shri, Padma Bhushan and Padma Vibhushan), highlighting the key role of RGIA.

**BOX 7.1**

**Dr. D Nageshwar Reddy,** Chairman of Asian Institute of Gastroenterology (AIG) Hospitals, Hyderabad emphasized the pivotal role of Rajiv Gandhi International Airport (RGIA) in AIG Hospital's transformation into a global healthcare destination. Since RGIA's inauguration in 2008, AIG has witnessed a surge in both domestic and international patient footfall, supported by improved air connectivity. The hospital's workforce expanded from 300 to 8,500, and Hyderabad emerged as a prime location for international medical conferences, including a 10,000-delegate global event in 2017. Dr. Reddy praised RGIA's world-class infrastructure, ease of navigation, and passenger amenities, comparing it favorably to airports in Singapore and Incheon. He underlined the importance of direct flights—particularly from East Africa—for boosting international patient inflow and reaffirmed the airport's vital role in Hyderabad's healthcare and economic growth.

**Dr. Reddy's Laboratories Ltd.** is an Indian multinational pharmaceutical company. Founded in 1984, the company produces over 190 medications, 60 active pharmaceutical ingredients (APIs) for drug manufacture, diagnostic kits, critical care, and biotechnology. The company has been exporting to international destinations since 1992. Till the time RGIA came into operations, the company's products were exported through Begumpet Airport (BPM) in Hyderabad which was the city's main commercial airport for many years. Now, RGIA plays a key role in facilitating company's global trade and also its supply chain. The key highlights of the discussion are provided in Box 7.2.

**BOX 7.2**

**Mr. G. V. Prasad** co-chairman and managing director of Dr. Reddy's Laboratories Ltd. highlights how the development of Rajiv Gandhi International Airport (RGIA) has significantly enhanced business and trade operations in Hyderabad, particularly for international logistics and the pharmaceutical sector. He emphasized improved global connectivity—especially with Europe and the Middle East—which has accelerated import-export processes and enhanced overall business efficiency. While quantifying the exact economic impact is challenging, the airport's high service quality, strategic location, superior road connectivity, and cold storage facilities have collectively improved the ease of doing business.

**Cohance Lifesciences** is a leading Indian CDMO (Contract Development and Manufacturing Organization) and API (Active Pharmaceutical Ingredient) platform that offers a wide range of services and products across the entire lifecycle of a molecule, from development to commercialization. Founded in 2003, the company boasts of best-in-class facilities built on world-class standards. They offer end-to-end CDMO services, including development and manufacturing capabilities, to support global pharmaceutical innovators, and also specialize in developing and manufacturing APIs and formulations, playing a crucial role in the pharmaceutical industry's global supply chain. They export their products to nearly 60 countries and a significant portion of their revenue comes from overseas sales. The key highlights of the discussion with them are provided in Box 7.3.

**BOX 7.3**

**Mr. Arun Nair,** Head of Supply Chain Logistics and Trade Compliances of Cohance Lifescience Ltd. emphasized Hyderabad Airport's strategic advantages for pharmaceutical logistics, highlighting its modern infrastructure, efficient operations, and superior road connectivity compared to congested hubs like Mumbai. With 80% of their freight spend allocated to air cargo, Hyderabad's clean, well-managed pharma zone, dedicated temperature-controlled facilities, and regulatory certifications (CTPAT, GDP, ISO) have made it a preferred choice for time- and quality-sensitive shipments. The airport's proactive stakeholder engagement and support for pharma-specific needs have allowed his company to align 10 of 11 sites with Hyderabad, ensuring timely and damage-free exports.

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