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**REGULATORY APPROACH AND TARIFF DETERMINATION METHODOLOGY FOR
MAJOR AIRPORTS IN INDIA**

(Presented by India)

EXECUTIVE SUMMARY

India opened up its Airport Infrastructure Sector for private sector participation through a policy initiative in 1997. In the changed new scenario, in order to create a level playing field, foster healthy competition amongst airports, encourage investments in airport infrastructure sector, and to regulate tariffs, an independent economic regulator in the form of Airports Economic Regulatory Authority (AERA) was established through a legislation namely the AERA Act 2008. In line with the aforesaid objectives, the regulatory approach and the tariff determination methodology was formulated by AERA so as to attract private investment in the airport infrastructure as well as to protect interest of passengers and other stakeholders of the airports by following a transparent, participative and consultative process as per the statutory mandate provided in the AERA Act 2008. This paper presents the regulatory approach and the detailed process adopted by AERA for the determination of tariff for aeronautical services of major airports (presently numbering 34) in India.

<i>Strategic Goals:</i>	This working paper relates to the Strategic Goal – <i>The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All</i>
<i>Financial implications:</i>	NIL
<i>References:</i>	Airports Economic Regulatory Authority of India Act, 2008 (and subsequent amendments Acts of 2019 and 2021). Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines 2011’ (Tariff Guidelines). ICAO Doc 9082, <i>ICAO's Policies on Charges for Airports and Air Navigation Services</i> ICAO Doc 9562, <i>Airport Economics Manual</i>

1. INTRODUCTION

1.1. The Indian Airport Infrastructure sector, earlier operated and managed by the Government of India through the Airports Authority of India (AAI), saw increased private participation post-liberalization through policy reforms like the Airports Infrastructure Policy in 1997. In the changed scenario post-liberalization, in order to create a level playing field by removing mismatch arising out of govt. controlled airport operator AAI performing the dual role of operator as well as regulator, foster healthy competition amongst airports, encourage investment in airport infrastructure and to regulate tariffs, Airports Economic Regulatory Authority (AERA) was established as an independent economic Regulator for determination of tariff of aeronautical services for Major Airports in this country, by an Act passed by the Parliament of India in 2008.

1.2. The primary mandate under the statute assigned to AERA is to determine tariff for the Aeronautical Services and other charges for the aeronautical services rendered at Major Airports, and to monitor set performance standards relating to quality, continuity, and reliability of service.

1.3. Section 2(a) of the AERA Act 2008 defines that ‘Aeronautical Service’ means any service provided for:

- a) navigation, surveillance and supportive communication thereto for air traffic management;
- b) landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations airport;
- c) ground safety services at an airport;
- d) ground handling services relating to aircraft, passengers and cargo at an airport;
- e) cargo facility at an airport;
- f) supplying of fuel to the aircraft at an airport.

1.4. As per Section 2(i) of the AERA Act, 2008 read with subsequent amendment in 2021, ‘Major Airport’ means ‘any airport which has, or is designated to have, annual passenger throughput in excess of three and a half million or any other airport or a group of airports as the Central Government may, by notification, specify as such’.

1.5. Presently, out of 162 operational airports in India, AERA is mandated to regulate Major Airports, currently 34 in nos. These Major Airports collectively handle approximately 90% of the total passenger traffic in India.

1.6. The Aeronautical Tariff is determined by AERA for a regulatory Control Period of five years. The tariff determination process considers regulatory building blocks such as projected Capital expenditures (CAPEX), operating expenses (OPEX), Fair Rate of Return (FRoR), Traffic Forecasts, Non-Aeronautical Revenue, and Quality of Service Parameters. Airport Operators are required to submit a Multi-Year Tariff Proposal (MYTP), including project execution timelines, audited financials, depreciation schedules, and traffic projections. In general, in order to maintain the regulatory certainty, the AERA determines tariff for a regulatory Control Period of 5 years, however, if it is considered appropriate and in public interest, AERA is authorized to review and amend tariff during the said period of 5 years.

1.7. AERA’s Regulatory Objectives: The key regulatory objectives of AERA for the economic

regulation of Major Airports includes creating a level playing field and foster healthy competition amongst the airports, encouraging investment for creation, upgradation & modernization of airport facilities, ensuring economic & viable operations of Major Airports, and protecting reasonable interest of all key stakeholders, including passengers.

2. AERA'S REGULATORY PHILOSOPHY AND APPROACH:

2.1. The Regulatory Philosophy and Approach takes into consideration, the guiding principles of International Civil Aviation Organization (ICAO) relating to Policies on Charges of Airports and Air Navigation Services, including the ICAO's principle of Cost Relatedness stating that "the users shall ultimately bear their full and fair share of the cost of providing the airport."

2.2. Thus, the regulatory philosophy and approach adopted by AERA is broadly based on ICAO's key principles, viz. principles of non-discrimination, cost Relatedness, transparency, and user consultation.

2.3. AERA ensures transparency and non-discrimination in tariff determination process, as mandated in Section 13 of the AERA Act, 2008, by holding due consultations with all stakeholders and giving them opportunity to make their submissions to AERA, and by making all the decisions of AERA fully documented and explained.

2.4. AERA's tariff philosophy focuses on fairness, economic viability, and service efficiency. It aims to ensure cost recovery for aeronautical services and allow reasonable returns on capital investments for the Airport Operators. The framework promotes transparency, predictability, and consistency in tariff setting to build stakeholder confidence. Simultaneously, AERA safeguards passenger interest by rationalizing airport charges to the best extent possible while encouraging infrastructure investment to meet future traffic demands and performance goals.

2.5. For the purpose of determination of tariff for aeronautical services, AERA has issued 'Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines 2011' (Tariff Guidelines) under Section 15 of the AERA, Act, 2008 (read with subsequent amendments of 2019 and 2021), and supplementary Regulatory Orders, issued from time to time setting out a framework incorporating terms, conditions, procedures for tariff determination, and information to be submitted by Airport Operators. The Tariff Guidelines prescribe the methodology for calculating Aggregate Revenue Requirement (ARR), including key regulatory building blocks (viz., CAPEX, OPEX, Fair Rate of Return (FRoR), Traffic Forecasts, etc.). The Tariff Guidelines also prescribe detailed procedure for determination of tariff, Yield Per Passenger, etc. AERA, while determining aeronautical tariffs for Major Airports, considers the following factors:

- a) Capital expenditure incurred and timely investments in improvement of airport facilities;
- b) Cost for improving efficiency;
- c) Revenue received from services other than aeronautical services i.e. from non-aeronautical services;
- d) Economic and viable operations of Major Airports;
- e) Concessions offered by the Central Government in any Agreement or Memorandum of Understanding (MoU).

2.6. For the tariff determination of Major Airports, AERA has adopted a “Cost Plus Regulatory Approach,” wherein the efficient costs incurred by the Airport Operator, along with a reasonable return on investment, form the basis for determining the ARR or Revenue Entitlement for Airport Operator/ Service Provider.

3. TARIFF DETERMINATION METHODOLOGY

3.1. Formula for Calculation of Aggregate Revenue Requirement (ARR): AERA calculates the ARR and determines tariff for a five-year control period cycle for ensuring return to the Airport Operator as per the following formula:

$$ARR = (RAB \times FRoR) + D + O + T - 30\% \text{ of } NAR$$

[ARR=Aggregate Revenue Requirement;

RAB=Regulatory Asset Base;

FroR=Fair Rate of Return;

D=Depreciation;

O=Operation and Maintenance Expenses;

T=Taxation;

NAR=Non – Aeronautical Revenue]

- a) **Hybrid Till (Shared Till) Mechanism:** As per the National Civil Aviation Policy, 2016, issued by the Government of India, AERA has adopted the Hybrid Till mechanism for tariff determination. Under the Hybrid Till Mechanism, 30% of the Non-Aeronautical Revenue (NAR) generated at an airport is allocated towards the cross-subsidization of Aeronautical Charges (in respect of regulated services). Accordingly, AERA’s tariff determination methodology considers 30% of the total NAR while working out the ARR for the Airport Operator, as depicted in the above formula.
- b) **Determination of Yield Per Passenger (YPP):** On the basis of ARR, the required YPP for the Control Period is computed based on the projected passenger traffic. YPP is then apportioned into various aeronautical charges in such a way that there is a judicious balance in airport cost recovery from the airlines and passengers.
- c) **Recovery of Entitled ARR:** The Entitled ARR is recovered by the Airport Operator from the Airlines, Independent Service Providers (ISPs) for Cargo, Ground Handling & Fuel Supply to Aircrafts and passengers in the form of fees/tariffs/user charges as follows:
 - (a) “Landing and Parking Charges” from Airlines;
 - (b) “User Development Fee (UDF)” from passengers;
 - (c) “Other Charges”:
 - Charges from Independent Service Providers (ISPs) providing services for Cargo, Ground Handling and Supplying of Fuel to aircraft at the Major Airports;
 - X-Ray charges from Airlines; and
 - Common User Terminal Equipment (CUTE) and Common User Self Services (CUSS) from passengers.

3.2. **True up Mechanism:** The Truing-up mechanism is a critical post-facto adjustment tool that enables AERA to reconcile differences between approved and actual figures for traffic, operating expenditure, capex utilization, and revenue. It's applied at the end of each control period or during annual reviews. This mechanism ensures fairness for operators, preventing both undue penalties and excessive enrichment, and reinforces performance-based regulation.

4. **PROCESS FOR DETERMINATION OF TARIFF FOR AERONAUTICAL SERVICES AT MAJOR AIRPORTS**

4.1. The Tariff Determination Process is detailed hereunder:

4.1.1. **Receipt & Analysis of Multi Year Tariff Proposal (MYTP):** The tariff determination process begins with the Airport Operator's submission of receipt of MYTP, as per timelines prescribed in Tariff Guidelines, for determination of tariff for aeronautical services. AERA then conducts a review of the MYTP for completeness, requesting further information or clarifications as needed. Simultaneously, AERA commissions independent studies on aspects like capex, allocation of assets into aeronautical and non-aeronautical, and opex, etc. This helps to achieve an in-depth analysis and scrutiny of the MYTP to rationalize and optimize each regulatory building block. The ARR is then calculated, post-adjustment in case of any under-recovery or over-recovery from the previous control period (along with carrying costs).

4.1.2. **Issuance of Consultation Paper:** A Consultation Paper containing AERA's tentative proposals related to each regulatory building block and tentative ARR for the Airport Operator for a given Control Period is issued and uploaded in public domain on AERA's website for the stakeholders' information & feedbacks. Wide publicity is given across the country through print media, etc. to make all stakeholders' aware of the same and enable broad based consultative process.

4.1.3. **Stakeholder Consultation Meeting:** AERA during its tariff determination process convenes a meeting with all the stakeholders (including Airlines, Independent Service Providers, Air Travelers' Associations, etc.) where the Airport Operator & other operator present their views on the Consultation Paper. All the Stakeholders are then given time to submit their written comments/feedbacks on the Consultation Paper to AERA, which are then uploaded in public domain on AERA's website. Subsequently, Airport Operator is given time to offer its counter comments on the views/comments of other stakeholders.

4.1.4. **Issuance of Tariff Order:** Tariff Order is finalized after considering the views/comments of all the stakeholders including counter comments of the Airport Operator after which the final Tariff Order is issued and put in the public domain by uploading on AERA's website.

5. **MONITORING OF PERFORMANCE STANDARDS**

5.1. AERA monitors performance standards at major airports through provisions in Concession Agreements for PPP, JV, and leased AAI airports, and through the provisions of the National Civil Aviation Policy, 2016 for AAI-operated airports. Objective service quality parameters are defined in Agreements and monitored by operators or authorities. Subjective parameters are assessed using ACI-ASQ survey ratings, which are reflected in AERA's tariff orders.

6. WAY FORWARD

6.1. The tariff determination framework for Major Airports in India is designed to balance competing interests fostering private investment, protecting passenger interests, and ensuring efficient airport operations. As the sector evolves, AERA's approach remains dynamic, adaptive, rooted in transparency, leveraging technology for real-time data integration, demand forecasting, and promoting environmental sustainability by incentivizing green airport practices.

6.2. AERA will continue to revise its tariff determination methodology to address current and emerging scenarios, such as the grouping of airports and the benchmarking of various building blocks of investments and expenditures, to enhance the efficiency and effectiveness of tariff determination.

7. CONCLUSION

7.1. AERA's Tariff determination approach & methodology is framed considering the objective behind its establishment and the mandate given in the AERA Act, 2008 by following a fair, transparent, and consultative process for safeguarding the interests of all key stakeholders in order to ensure economic and viable operations of the airports.

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