



Airports Economic Regulatory Authority of India

**In the matter of Determination of Fair Rate of Return (FRoR) to be provided on
Cost of Land incurred by various Airport Operators of India**

08th May, 2018

**AERA Building
Administrative Complex
Safdarjung Airport
New Delhi – 110 003**

TABLE OF CONTENTS

1. LIST OF ABBREVIATIONS..... 3

2. INTRODUCTION..... 4

3. STUDY BY EY 6

4. PROPOSAL 13

5. STAKEHOLDERS' CONSULTATION TIMELINE..... 14

1. LIST OF ABBREVIATIONS

AAI	Airport Authority of India
AERA Act	Airports Economic Regulatory Authority Act, 2008
AERA or the Authority	Airports Economic Regulatory Authority
BIAL	Bengaluru International Airport Limited
BPCL	Bharat Petroleum Corporation Limited
CCSIA	Chaudhary Charan Singh International Airport
CHIAL	Chandigarh International Airport Limited
CIAL	Cochin International Airport Limited
CPI	Consumer Price Index
DIAL	Delhi International Airport Limited
FRoR	Fair Rate of Return
GMADA	Greater Mohali Area Development Authority
HIAL	Hyderabad International Airport Limited
HUDA	Haryana Urban Development Authority
HUDCO	The Housing and Urban Development Corporation Limited
IGIA	Indira Gandhi International Airport
JVC	Joint Venture Company
KIA	Kempegowda International Airport
KIAL	Kannur International Airport Limited
MIAL	Mumbai International Airport Limited
NCAP	National Civil Aviation Policy, 2016
OMDA	Operations, Management and Development Agreement
PPP	Public Private Partnership
RAB	Regulatory Asset Base
RCS	Regional Connectivity Scheme

2. INTRODUCTION

2.1 Objective of the Consultation Paper

2.1.1 The primary function of Airports Economic Regulatory Authority (AERA or Authority) is to determine the tariff for the aeronautical services to be charged by the airport operators, having regard to Section 13 of Airports Economic Regulatory Authority of India Act (AERA Act), 2008.

2.1.2 The tariff determination methodology is based on an approach that provides a Fair Rate of Return (FRoR) to the airport's Regulatory Asset Base (RAB) which includes fixed depreciable assets of the airport. At present the premise is that the operator is handed over land free of cost and no depreciation is charged on the land. Thus, in the current practice for computing RAB, cost of land is not included.

2.1.3 The State Governments normally provide the land necessary for the development of the airport. The arrangements they make for such transfer are summarized below:

Table 1: Type of Land Arrangement for Airport Development

Type	Case	Return on Land
Transfer of land from the owner (state government)	i. Free of cost	No return on land
	ii. Lease basis	A lease arrangement is drawn between the land owner and airport operator; return in the form of lease is explicitly specified in such an agreement. Example: airport in Bengaluru, Hyderabad
Acquired land	iii. Acquired land provided to the airport operator against upfront payment	Land owner receives the upfront payment from the airport operator.
	iv. Acquired land provided to the airport operator through transfer in value against equity; (And not in exchange of an upfront payment.)	Example: Airports in Chandigarh, Cochin, Kannur. Return in such a case is yet to be determined.

2.1.4 In recent years, in airports such as Chandigarh, Cochin, Kannur, land has been introduced by the respective stakeholder State Governments against equity. The governments had previously incurred a considerable expense on land acquisition. This has led to a demand of return on land by the respective government stakeholders.

2.1.5 AERA has recognized this concern in the consultation paper issued for Chandigarh, Goa and Cochin airports, stating:

“In respect of cost of land, the Authority notes that land is not a depreciable asset and if taken into RAB, the return over it has to be paid perpetually. Besides, if the principle of FRoR based on cost of capital is applied on cost of land the aeronautical charges may have to be fixed at exorbitantly high rates. However, the Authority realizes that unless some kind of return is given on land, future land acquisitions for airport purposes could become a major hurdle for airport development. Therefore, it is proposed to conduct a study based on which the treatment to be given to cost of land can be determined.”

3. STUDY BY EY

3.1 Terms of Reference

3.1.1 The Authority appointed EY to perform the said study (“land study”) on 08 August 2017. EY Submitted the land study report on 23 April 2018.

3.1.2 Terms of Reference of the land study was:

“2.1. Reviewing and analyzing different modes of acquisition of land in case of existing major airports across India and internationally (2-3 Countries after consultation with the Authority) along with the policy of Govt. of India on this aspect and provisions of Land Acquisition Act.

2.2. Analyzing the FROR to be provided on Land cost in case of (a) Airports where cost was incurred to acquire land by Airport operator (b) AAI Airports where land cost is not available (c) Airports where equity is contributed by way of land by stakeholder.

2.3. Treatment of land cost and returns thereon along with supporting arguments, stakeholder comments as per erstwhile consultations.

2.4. The possible modes of providing FROR on land cost will be summarized and presents as a report to assist the Authority in finalizing the most appropriate method of providing FROR on land cost incurred by airport operators.

2.5. Practices followed by State Governments in allocating land for other development projects in the States whether any return on land is imputed

2.6. As land is an asset which is never depreciated, quantify the impact on RAB if return is provided infinitely

2.7. Once the airport is built, it may not be probable that the airport gets closed and land is sold. Thus, the increase in value of land may not be realized. However, when the value off land goes up, the valuation of the company owning / operating the airport may also go up. Hence, whether the return on investment in land could be different from that in other assets in an Airport Project.”

3.2 Report Submitted by EY

3.2.1 EY has submitted the land study report which is enclosed in **Annexure 1**.

3.3 Salient features of the report

3.3.1 The land study has summarized the existing land treatment in airports in India:

Table 2: Summary of Existing Land Treatment in Airports in India

Airport	Location	Shareholders	Operat or	Land Area	Mode of Acquisition	Return on land (if any)
Indira Gandhi International Airport	New Delhi	GMR Consortia – 74% AAI – 26%	DIAL (OMDA signed in the year 2006)	5106 Acres (245 acres can be monetized or economical	Lease	INR 100 paid per acre of land as lease rent annually to

Airport	Location	Shareholders	Operator	Land Area	Mode of Acquisition	Return on land (if any)
				ly exploited by DIAL)		AAI. ¹
Chhatrapati Shivaji International Airport	Mumbai	GVK Consortia – 74% AAI – 26%	MIAL (OMDA signed in the year 2006)	1,450 Acres	Lease	INR 100 paid annually to AAI. ²
Kempegowda International Airport	Bengaluru	GVK Group – 43% Siemens - 26% Flughafen Zurich AG Ltd. - 5% AAI – 13% Government of Karnataka – 13%	BIAL	4,008 Acres	Lease	3% of 175 Crores for first 7 years. 6% for the 8th year and previous year lease rent plus 3% from the 9th year onwards.
Chandigarh International Airport	Chandigarh	AAI – 51% GMADA – 24.5% HUDA – 24.5%	CHIAL	305 Acres	Equity	To be determined
Cochin International Airport	Kochi	Directors, Relatives & Associates - 37.24% HUDCO - 3.3% National Aviation Company Limited - 3.3% State Bank of Travancore - 3.35% Others - 22.60% BPCL - 3.4% Government of Kerala - 32.24%	CIAL	1,275 Acres	Equity	To be determined

¹ Order No. 40/2015-16, Chapter 3 – Principles for Determination of Aeronautical Tariff, Clause 3.30, Sub-Clause 3.2 (page no. 32)

² Lease deed between AAI and Mumbai Airport , Page No. 6, Clause 4.1

Airport	Location	Shareholders	Operator	Land Area	Mode of Acquisition	Return on land (if any)
Kannur International Airport	Kannur	Government of Kerala (35.0%), qualified institutional investors, cooperative banks/societies/commercial banks and other legal entities (31.0%), BPCL (24.0%) and AAI (10.0%)	KIAL	1,192 acres	Equity	To be determined
Rajiv Gandhi International Airport	Hyderabad	GMR Infrastructure Limited - 63% AAI - 13% Transport Roads & Buildings (Ports) Department (GoAP) - 13% Malaysia Airports Holdings Berhad - 11%	HIAL	5,000 Acres	Lease	2% of land cost (155 crores) to be paid after 8 th year. Base value of land to be compounded at 5% p.a. after 8 th year.
Chaudhary Charan Singh International Airport	Lucknow	AAI – 100%	CCSIA	Not available	Land Provided for free by the state government of UP.	Not applicable

- 3.3.2 The land study analyzed various regulatory bodies in India and other countries.
- 3.3.3 As a part of the study, EY reviewed tariff determination methodology of CERC and NHAI in India, which do not include land in their tariff and toll determination respectively. Outside India, Department of Transport of South Africa along with airports of Auckland and Hong Kong were studied.
- 3.3.4 The study suggests that a nominal amortization of land could be provided to recover the cost incurred for its acquisition.
- 3.3.5 Analysis of the Land Study**
- 3.3.5.a. The study analyses the case when the agreement regarding return on land is silent. This case is considered when land is acquired by the government and infused as equity to the airport operator, or when land is privately purchased by the airport operator from the government.
- 3.3.5.b. Since the acquiring stakeholder spends a large sum of money in land acquisition and a return is not explicitly stated, the concerned stakeholder would demand a return on it. This can be observed in the airports of Chandigarh, Cochin, Goa and Kannur.
- 3.3.5.c. Given that the airport development brings economic benefits to the region it is located in, it is proposed that any return on land, if and when the government entity introduces land against equity or is silent on the agreement pertaining to return on land, or when the operator purchases land from the government, should be minimal in nature that compensates for the cost incurred by the government to acquire the land.

4. AUTHORITY'S VIEWS ON LAND COST

- 4.1 Historically, the Airports were developed and operated by Governments or PSUs on the land acquired/transferred by State Government or Central Government free of cost. However, it is noted that presently, most of the Airports are being developed on land which are acquired by the operators themselves by paying market price or acquired by State Government and transferred to the operator through equity route. The details of land arrangement for Airport development is given in at Table – 1.
- 4.2 Previously, as the land was acquired by the Government agencies and transferred to the operator free of cost or at nominal value, the regulator did not include the cost of the land in the RAB and did not feel any requirement to pay any return on the cost of the land. However presently, the land is either acquired by the operator themselves and the cost of the land are funded by equity contribution of the shareholders, or acquired by the State Government and transferred to the operator as a part of the equity contribution. In this case, the investors desired that a return should be paid on the cost of the land. Refusal to provide such a return could disincentivize acquisition of land which is a primary requirement for airport development. During the consultation process for fixing tariff in case of Chandigarh Airport, the Governments of Haryana and Punjab stated that they have spent a huge amount in acquiring the land for the Airport and they desired to have a return on the investment made by them. It was pointed out to them that the development of the airport land acquired by them indirectly benefits the State Government due to economic development of the area around Airport generation of employment etc. The State Government pointed out that it takes a long gestation period for areas around the Airport to develop specially for Airports developed at a distance from the city and no immediate benefits are derived by the Government or local population. They felt that in case no return are given on the cost of the land acquired, it might be beneficial for the State Government to spend the fund on development of other infrastructure which will immediately benefit the Government and local population.
- 4.3 The Authority feels that the land is a scarce resource and in future land might not be available for Airport development unless it is acquired by paying the market price. The land cost might be a major component of the total project cost and in case no return is given on the land, the stakeholders might not be interested in investment on the land which may hamper airport development in future.

4.4 Option

Based on the study conducted by EY, the Authority is of the view that primarily there are two options to provide return on cost of the land:

- (i). The land cost will not be included in the RAB. However, the FROR on the cost of the land will be included in the ARR. No depreciation will be allowed on the cost of land.

(ii). Amortizing the historical cost of the land over the concession period, in this case also, the cost of the land will not be included in the RAB. The amortization will be taken as an operational expenditure on notional basis for determination of tariff.

4.4.1 Scenario Analysis

4.4.1.a. To gain a better understanding of the various forms of return that can be earned on the cost of land, two scenarios were analyzed by the consultant with respect to airports of Cochin, Chandigarh, and Kannur.

4.4.1.b. **Scenario 1:** Providing a FRoR on the Cost of Land incurred. The land cost does not flow into the RAB since land is a non-depreciable asset. Therefore, the return is provided at the historical cost for a period equivalent to the concession agreement, or until the cost of land is recovered by the acquirer, whichever occurs first.

4.4.1.c. **Scenario 2:** Amortizing the historical land cost at a fixed rate of 3% per annum until the time the cost of land is realized. This amortization will be treated as an expense notionally and recorded under the Operational Expenses of the concerned Airport Operator.

4.4.1.d. It is found that the impact of return on land is very high when the value of land in proportion to total value of RAB is high, and when the traffic projections of the airport is relatively low. Given this, Chandigarh and Cochin can be seen on two ends of the spectrum, where Chandigarh has low traffic and high cost of land in proportion to RAB, and Cochin has high traffic projections compared to a relatively low land cost in proportion to RAB.

4.4.2 Results of Scenario Analysis

4.4.2.a Using the figures stated in Order No. 06/2017-18 titled, "In the matter of Determination of tariffs for Aeronautical Services in respect of Cochin International Airport for the Second Control Period", it was found that providing a maximum ceiling of FRoR on the cost of land at the rate of 14% for a particular control period will cause the base case tariff to increase by as much as 2.86%. On the other hand, amortizing the land cost at a rate of 3% per annum shows that during a control period, the base case tariff increases by 1.13%.

4.4.2.b Using the figures stated in Order No.17/2016-17 titled, "In the matter of Determination of Aeronautical Tariffs in respect of Chandigarh International Airport Limited for the First Control Period", it was found that providing a maximum ceiling of FRoR on the cost of land at the rate of 14% for a particular control period will cause the base case tariff to increase by as much as 62.09%. The reason for such a high change is due to the high land cost incurred vis-à-vis the passenger traffic projections, which are not high enough to compensate for the return required on land. On the other hand, amortizing the land cost at a rate of 3% per annum shows that during a control period, the base case tariff increases by 13.30%.

4.4.2.c Using the figures as per the presentation shared by Kannur International Airport Limited on 18 April 2017 for the first control period, it was found that providing a maximum ceiling of FRoR on the cost of land at the rate of 13.33% for a particular control period will cause the base case tariff to increase by 13.91%. On the other hand, amortizing the land cost at a rate of 3% per annum shows that during a control period, the base case tariff increases by 2.51%.

4.4.3 Table 3 below provides a summary of the analysis for the respective airports in Cochin, Chandigarh, and Kannur:

Table 3: Summary of Scenario Analysis

Airport	Percentage increase in tariff in case of FRoR provided on land cost	Percentage increase in tariff increase in case of amortization of cost of land
Cochin	2.86%	1.13%
Chandigarh	62.09%	13.30%
Kannur	13.91%	2.51%

It is noted that the tariff will rise sharply in case of FRoR is provided on land cost depending on the proportion of the cost of land to total RAB and passenger traffic. In case of amortization of land cost over concession period the increase in tariff will be moderate in comparison to providing return on FRoR basis.

5. PROPOSAL

5.1 Judging the scenario analysis has stated above the Authority is of the view:

- 5.1.1 The cost of land in case of airports tends to be high because the land is located in or in the vicinity of urban area.
- 5.1.2 The percentage increase in tariff in case the cost of the land is amortized over 30 years concession period will be lower.
- 5.1.3 It will also be fair on the investor who exits in between the concession period since the valuation of the business/ share price will be based on the then land price and valuation and income potential.
- 5.1.4 The Authority intends to take the value of land being utilized for aeronautical purpose only providing a return on land cost.
- 5.1.5 With the development of an airport, the state government also benefits in the form of increased value of land and increased economic benefit from Airport related activity.
- 5.1.6 In public interest, the return on cost of land should be such that its impact on tariff is minimum.

5.2 In view of the approaches suggested to provide return on land of cost, the Authority proposes to conduct stakeholders' consultation and obtain view regarding rate of return to be provided on cost of land in the following situations:

- 5.2.1 Where airport operator is required to bear the cost of acquisition of land
- 5.2.2 Where land has been provided to the airport operator by way of equity contribution by the equity shareholders

5.3 The Authority proposes that the land development cost should be added to cost of asset depending on the area of land attributable to the asset. As a result there will be some assets which will be purely land, for example, taxiway, runway, etc. Going forward, the airport operator should include the land development cost of an asset in their proposals.

5.4 The Authority suggests that the concerned state governments should provide the land to the airport operator on a lease rental system.

6. STAKEHOLDERS' CONSULTATION TIMELINE

- 6.1. In accordance with the provision of Section 13(4) of the AERA Act, 2008, the proposal mentioned in Para 5 above) read with the relevant discussion in the other sections of the paper is hereby put forth for Stakeholders' Consultation. For removal of Doubts, it is clarified that the contents of this consultation paper may not be construed as any order or Direction of this Authority. The Authority shall pass an order, in the matter, only after considering the submissions of the Stakeholder's in response hereto and by making such decisions fully documented and explained in terms of the provisions of the Act.
- 6.2. The Authority welcomes written evidence- based feedback, comments and suggestions from Stakeholder's on the proposal made in (Para 5 above), latest by **05.06.2018** at the following address.

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