

फा.सं. ऐरा / 20010 / एम.वाई.टी.पी./ए.आई.ए.-नागपुर/सी.पी-दो/2016-17/ भाग दो
भारतीय विमानपत्तन आर्थिक विनियामक प्राधिकरण
ऐरा भवन, प्रशासनिक कॉम्प्लेक्स,
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दिनांक : 1 सितंबर, 2017

विषय: डॉ बाबासाहेब अम्बेडकर अंतराष्ट्रीय हवाई अड्डे, नागपुर में पहली नियंत्रण अवधि
(01.04.2016 से 31.03.2021) के लिए टैरिफ निर्धारण के संबंध में।

उपर्युक्त विषय पर दिनांक 01.09.2017 का परामर्श पत्र संख्या 16/2017-18 सूचना एवं
टिप्पणी के लिए संलग्न है।

भवदीय,


(राजेश खन्ना)

सहायक महा प्रबंधक (वित्त)

01.09.2017

सेवा में,

सभी पणधारी

Consultation Paper No.16/2017-18



Airports Economic Regulatory Authority of India

**In the matter of Determination of Tariff in respect of Dr. Babasaheb
Ambedkar International Airport, Nagpur for the First Control period
(01-04-2016 to 31-03-2021).**

1st September, 2017

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

Abbreviation

Acronym	Definition
AAI	Airports Authority of India
AERA	Airports Economic Regulatory Authority of India
ARR	Aggregate Revenue Requirement
CAGR	Compounded Annual Growth Rate
FRoR	Fair Rate of Return
GoI	Government of India
GoM	Government of Maharashtra
INR	Indian Rupee
MADC	Maharashtra Airport Development Company
MIL	MIHAN India Ltd.
MoCA	Ministry of Civil Aviation
MYTP	Multi Year Tariff Proposal
RAB	Regulatory Asset Base
UDF	User Development Fee

Contents

1	BACKGROUND.....	4
2	MULTI YEAR TARIFF PROPOSAL SUBMITTED BY MIL.....	5
3	METHODOLOGY FOR TARIFF CALCULATION	6
4.	REGULATORY ASSET BASE (RAB) AND DEPRECIATION	8
5.	FAIR RATE OF RETURN (FRoR)	15
6	OPERATION AND MAINTENANCE EXPENDITURE	18
7	REVENUE FROM SERVICES OTHER THAN AERONAUTICAL SERVICES.....	21
8	TAXATION.....	24
9	AGGREGATE REVENUE REQUIREMENT	26
10	TRAFFIC FORECAST.....	27
11	REVENUE FROM AERONAUTICAL SERVICES	30
12	COMPARISON OF ARR WITH PROJECTED AERONAUTICAL REVENUE	34
13	PROPOSED TARIFF AND UDF.....	35
14	SUMMARY OF PROPOSALS	39
15	STAKEHOLDERS' CONSULTATION TIMELINE	40

1 BACKGROUND

1.1 MIHAN India Ltd (MIL) was formed by a joint venture agreement signed between Airports Authority of India (AAI) and Maharashtra Airport Development Company Ltd (MADC) in February 2009. As per terms of the Agreement MADC holds 51% and AAI 49% of the equity share capital. Nagpur Airport was transferred to MIL on 07.08.2009 and since then it is being operated and maintained by MIHAN as envisaged under the JV agreement. AAI's contribution to equity was by way of transfer of existing land, building and structure and MADC brought in the additional land for development of the airport.

1.2 After taking over the Nagpur Airport, MIL has undertaken several items of work to upgrade the facilities at the airport which includes construction of additional aprons, re-carpeting of runway, and partial renovation of passenger terminal. MIL has also taken steps to prepare the revised detailed master plan of the Airport.

1.3 As per the terms of the JV agreement, MIL is responsible for development of the airport and will enter into a concession agreement with private developers who will be selected through competitive bidding. MIL has already floated the RFQ for the development of Nagpur airport on PPP basis.

2 MULTI YEAR TARIFF PROPOSAL SUBMITTED BY MIL

2.1 Tariffs at major airports are determined by the Airport Economic Regulatory Authority (AERA), based on the proposals submitted by the airport operator and the guidelines of AERA. Since Nagpur airport served more than 1.5 million passengers in 2015-16, it has been declared as a major airport and tariff determination and filing comes under the purview of AERA.

2.2 Consequently, MIHAN India Ltd. prepared and filed the multi-year Tariff and UDF proposal for the control period **01-04-2016 to 31-03-2021** with AERA. MIL filed its MYTP submissions for the first control period i.e. from 2016-17 to 2020-21, vide their letter dated 21.11.2016.

2.3 MIL has made submissions for the first control period based on actual figures up to the FY 15-16 and projections from FY 16-17 to FY 20-21. MIL in its submission has included details of capital expenditure, revenue and operating expenditure along with growth rate estimates and the basis for such estimations.

2.4 Presently, MIL's main source of Aeronautical revenues comes from landing charges, fuel throughput fees and the facilitation component of Passenger Service Fees.

2.5 MIL has also proposed to levy UDF in order to cover the revenue shortfall and meet the projected ARR for the 2nd control period.

3 METHODOLOGY FOR TARIFF CALCULATION

3.1 The Authority, vide its Order No. 13/2010-11 dated 12.01.2011 (“Airport Order”) and Direction No. 5/2010/11 dated 28.02.2011 (“Airport Guidelines”), has issued guidelines to determine tariffs at major airports based on Single Till mechanism. Subsequently, the Authority has amended its guidelines vide its Order No. 14, 2016-17 dated 12.1.2017 to determine future tariffs using Hybrid Till.

3.2 The present methodology implies that, only 30% of the Non-Aeronautical revenue is to be used for cross-subsidizing the aeronautical charges as against the earlier practice of taking the entire Non-Aeronautical revenues for cross-subsidizing the aeronautical charges (Single Till).

3.3 The methodology adopted by the Authority to determine Aggregate Revenue Requirement (“ARR”) is based on AERA Act, 2008 and the Airport Guidelines issued by AERA.

3.4 The Authority shall determine the Aggregate Revenue Requirement (ARR) for the current control period on the basis of the following Regulatory Building Blocks: Regulatory Asset Base (RAB) Depreciation (D); Fair Rate of Return applied to the Regulatory Asset Base (FRoR x RAB); Operation and Maintenance Expenditure (O); Taxation (T); Revenue from services other than aeronautical services (NAR).

3.5 Based on the building blocks provided above, the formula for determining ARR under Hybrid Till is as follows:

$$ARR = \sum(ARR_t) \text{ and } t=1 \text{ to } 5$$

$$ARR_t = (FRoR \times RAB_t) + Dt + Ot + Tt - 30\% \text{ of } NAR_t$$

Where

‘t’ is the Tariff Year in the Control Period;

ARR_t is the Aggregate Revenue Requirement for year ‘t’;

FRoR is the Fair Rate of Return for the control period;

RAB_t is the Regulatory Asset Base for the year ‘t’;

D_t is the Depreciation corresponding to the RAB for the year ‘t’;

O_t is the Operation and Maintenance Expenditure for the year ‘t’, which includes all expenditures incurred by the Airport Operator(s) including expenditure incurred on statutory operating costs and other mandate operating costs;

It is the corporate tax for the year 't' paid by the airport operator on the aeronautical profits;
and

3.6 NAR_t is revenue from services other than aeronautical services for the year 't'

3.7 The present value of total aeronautical revenue that is estimated to be realized each year during the control period at proposed tariff levels is compared with the present value of the ARR during the control period. In case the present value of estimated aeronautical revenue during the control period is lower than the present value of ARR during the control period, the airport operator may opt to increase the proposed tariff. In case the present value of estimated aeronautical revenue is higher than the present value of the ARR then the airport operator will have to reduce its proposed tariff.

3.8 The detailed submissions provided by MIL in respect of the Regulatory Building Blocks have been discussed in the subsequent sections.

4. REGULATORY ASSET BASE (RAB) AND DEPRECIATION

Opening RAB - MIHAN Submission

4.1 As per clause 5.2.4 of Airport Guidelines issued by AERA opening RAB is to be calculated by taking into consideration the original cost of fixed assets, accumulated depreciation, accumulated capital receipts of the nature of contributions from stakeholders, adjustment for value of assets excluded from the scope of RAB and adjustment for value of the land excluded from the scope of RAB.

4.2 The RAB for the initial year is arrived at from the value of the assets declared in last audited accounts of the MIL. The asset base includes assets commissioned by MIL from 2009-10 onwards and the assets transferred by AAI during August 2009.

4.3 The assets as per the last audited account of MIL as on 31st March 2016, have been depreciated by the written down value method of IT ACT. As per the AERA guideline, Straight Line Method (SLM) of Depreciation has to be used to arrive at the Initial RAB and the forecasted RAB values for the Control Period. Hence the Net Asset Value as per SLM has been computed from the data by MIL and accordingly the value of assets has been adjusted in the calculation of Initial RAB.

4.4 However, for the computation of Net Tax liability, WDV adjustment has been considered.

4.5 The rates used for determining the cost of capital projects in the control period are in line with the normative rates prescribed by AERA.

Table 1: Total value of Assets in the control period.

Forecast Regulated Asset Base (RAB) in INR crores		Initial RAB				
		2016-17	2017-18	2018-19	2019-20	2020-21
Opening RAB (t-1)	OR	115.61	128.85	155.15	193.01	201.96
Commissioned assets during the year	CA	20.28	34.91	48.58	21.37	11.64
Depreciation	DR	7.05	8.62	10.73	12.41	13.06
Disposals	DI	0.00	0.00	0.00	0.00	0.00
Incentive adjustments	IA	0.00	0.00	0.00	0.00	0.00
Closing RAB (t)	CR=OR+CA-DR-DI+IA	128.86	155.15	193.01	201.97	200.55
RAB for calculating ARR	RAB=(OR+CR)/2	122.24	142.01	174.08	197.49	201.26

Authority's Examination: Opening RAB

4.6 The Authority has calculated the initial RAB based on the opening assets of MIL as per the net block of assets given in the audited annual report 2015-16 of MIL.

4.7 It has been noted that MIHAN has not bifurcated the opening RAB into Aero assets and Non-aero assets. On detailed scrutiny of the records, it is noticed that some area of the terminal building has been utilised for non-aero purposes. The area adopted is approx. 5% of the area. Accordingly, the Authority has decided to apportion the Terminal area into Aero and Non-Aero in the ratio of 95% and 5% respectively. In all other cases, the non-aero assets are negligible. Accordingly it is proposed to take all the other assets as 100% Aeronautical Assets.

4.8 Based on the above evaluation and the value of the assets handed over by AAI to MIL, the opening balance as on 01.04.2016 is to be re-classified as:

Table 2: Re-calculation of opening RAB

Asset Type	Initial RAB in INR Crores	Aeronautical Asset	Non-Aeronautical Asset
Runway & taxiway	27.56	27.57	1.88
Apron	8.23	8.23	
Roadways	4.76	4.76	
Boundary Wall	1.34	1.34	
Terminal Building	37.63	35.75	
IT	0.19	0.19	
Plant & Equipment	2.67	2.67	
Furniture & Fixtures	0.42	0.42	
Vehicles incl of ambulance	0.15	0.15	
Electrical	4.82	4.82	
CFT	-	-	
Civil - others	-	-	
Residential	2.14	2.14	
Major maintenance cost	-	-	
Fencing	0.07	0.07	
Total	90.00	88.12	

Addition to RAB – MIHAN Submission

4.9 MIHAN in its submission has classified the addition to RAB during the control period as per table given below :

Table 3: Proposed addition to RAB (Rs. in crores)

In INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
	3/31/2017	3/31/2018	3/31/2019	3/31/2020	3/31/2021
Runway & taxiway	1.22	4.00	24.00	3.20	0.00
Apron	0.00	0.50	8.00	10.00	0.00
Roadways	2.14	10.00	0.00	1.00	10.00
Boundary Wall	0.55	0.40	0.00	0.00	0.00
Terminal Building	0.51	1.02	0.45	1.20	1.30
IT	0.00	0.00	0.00	0.00	0.00
Plant & Equipment	4.21	4.19	1.75	0.93	0.04
Furniture & Fixtures	0.00	0.00	0.00	0.00	0.00
Vehicles	0.14	1.07	0.10	0.10	0.10
Electrical	1.76	1.66	1.09	4.85	0.20
CFT & Ambulance	6.00	6.00	12.00	0.00	0.00
Civil - others	3.76	6.07	1.20	0.10	0.00
Total	20.29	34.91	48.59	21.37	11.64

Authority Examination

4.10.1 The Authority notes that there is no significant capital expenditure proposed for the control period probably due to proposed development of the Airport through private participation.

4.10.2 The capital expenditure proposed are mainly for upgradation of the existing asset/facility and fulfil the various standard prescribed under various norms,

4.10.3 The expenditure under Terminal Building is purely for operational requirement and hence not required to be apportioned for Non-Aero assets.

4.10.4 There are no significant capital projects planned over the control period as the airport will undergo privatization in the next 5 years. The planned capex showcased in the table relates to upgradation of the facilities.

Note: As per the submissions of MIL, the capex expenditure planned for each tariff year of the control period are proposed to be commissioned in the same year itself for the purpose of arriving at the RAB.

4.10.5 The Authority has revised the additions to RAB based on the actual capex incurred by MIL in 2016-17. The revised capex schedule is given in the table below:

Table 4: Revised additions to RAB Proposed

In INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
	3/31/2017	3/31/2018	3/31/2019	3/31/2020	3/31/2021
Runway & taxiway	0.05	4.00	24.00	3.20	0.00
Apron	0.00	0.50	8.00	10.00	0.00
Roadways	0.38	10.00	0.00	1.00	10.00
Boundary Wall	3.62	0.40	0.00	0.00	0.00
Terminal Building	1.79	1.02	0.45	1.20	1.30
IT	0.19	0.00	0.00	0.00	0.00
Plant & Equipment	0.76	4.19	1.75	0.93	0.04
Furniture & Fixtures	0.75	0.00	0.00	0.00	0.00
Vehicles	0.27	1.07	0.10	0.10	0.10
Electrical	0.75	1.66	1.09	4.85	0.20
CFT & Ambulance	5.03	6.00	12.00	0.00	0.00
Civil - others	0.00	6.07	1.20	0.10	0.00
Fencing	0.47				
Total	14.05	34.91	48.59	21.37	11.64

4.10.6 The revision pertains mainly to the initial year when some civil/ electrical items of work and costs relating to equipments which are normally considered as revenue expenditure were included in Capital Assets. Therefore, capital additions in the first year of the control period be reduced by Rs. 6.24 crs.

Depreciation

MIHAN Submission

4.11 The depreciation for the initial and forecast RAB has been computed based on SLM with no residual value and allowable depreciation is considered at 100%.

4.12 MIL has followed straight line method of depreciation and depreciation rates applied to various assets are as per AAI's approved accounting policy considering the useful life of the assets. Post the transfer of AAI assets in 2009, MIL has followed WDV method of depreciating the assets till date. But as prescribed by the guidelines, SLM has been used since 1995-96 for arriving at the initial RAB value.

4.13 Also, the following rates for depreciation as per the other tariff orders issued are considered for calculating the depreciation for the assets capitalized during the control period:

Table 5: Depreciation Rates adopted as per Asset Class

Asset Type	Useful Life in years	Depreciation Rate
Runway & taxiway	30	3.33%
Apron	30	3.33%
Roadways	30	3.33%
Boundary Wall	30	3.33%
Terminal Building	30	3.33%
IT	6	16.67%
Plant & Equipment	15	6.67%
Furniture & Fixtures	10	10.00%
Vehicles incl of ambulance	8	12.50%
Electrical	15	6.67%
CFT	10	10.00%
Civil - others	30	3.33%
Residential	30	3.33%
Major maintenance cost	15	6.67%
Fencing	5	20.00%

4.14 Based on the above assumptions, the depreciation calculated for opening RAB and additions during the control period are as follows:-

Table 6: Depreciation Schedule as submitted by MIL

Dep for the year in INR crores	2016-17	2017-18	2018-19	2019-20	2020-21
Runway & taxiway	1.14	1.22	1.69	2.14	2.20
Apron	0.84	0.85	0.99	1.29	1.46
Roadways	0.29	0.49	0.65	0.67	0.85
Boundary Wall	0.12	0.14	0.15	0.15	0.15
Terminal Building	1.90	1.93	1.95	1.98	2.02
IT	0.01	0.01	0.01	0.01	0.00
Plant & Equipment	0.82	1.10	1.30	1.39	1.42
Furniture & Fixtures	0.11	0.11	0.03	-	-
Vehicles	0.03	0.11	0.18	0.20	0.21
Electrical	1.06	1.17	1.27	1.46	1.63
CFT	0.30	0.90	1.80	2.40	2.40
Civil - others	0.38	0.54	0.66	0.68	0.69
Residential	0.03	0.03	0.03	0.03	0.03
Major maintenance cost	-	-	-	-	-
Fencing	0.01	0.01	0.01	0.01	-
Total	7.05	8.62	10.73	12.41	13.06

Authority's Examination:

4.15 The Authority notes that MIL has adopted SLM of depreciation based on the rates given above since 1995-96 till 2015-16. However, this is not in line with the guidelines and SLM has to be used for depreciating the assets in the control period as per the rates given above.

4.16 Accordingly, Authority has modified the opening assets of MIL as per the closing net block of assets given in the audited annual report 2015-16 of MIL, post which SLM is used for depreciating the assets during the control period.

4.17 Also, as mentioned in section 4.9, the Authority has bifurcated the terminal building into 95% aero and 5% non-aero and same has been accounted for purpose of arriving at the revised depreciation schedule as given in the table below:

Table 7: Revised Depreciation Schedule

Dep for the year) in INR crores	2016-17	2017-18	2018-19	2019-20	2020-21
Runway & taxiway	0.92	0.99	1.45	1.91	1.96
Apron	0.27	0.28	0.42	0.72	0.89
Roadways	0.16	0.34	0.50	0.52	0.70
Boundary Wall	0.11	0.17	0.18	0.18	0.18
Terminal Building	1.22	1.27	1.29	1.32	1.36
IT	0.05	0.06	0.06	0.06	0.11
Plant & Equipment	0.20	0.37	0.57	0.66	0.69
Furniture & Fixtures	0.08	0.12	0.86	-	-
Vehicles	0.04	0.12	0.19	0.21	0.22
Electrical	0.35	0.43	0.52	0.72	0.88
CFT	0.25	0.90	1.80	2.30	2.30
Civil - others	-	0.10	0.22	0.24	0.25
Residential	0.07	0.07	0.07	0.07	0.07
Major maintenance cost	-	-	-	-	-
Fencing	0.06	0.11	0.11	0.21	-
Total	3.78	5.33	8.26	9.12	9.61

4.18 The RAB as per MIHAN Submission

Table 8: RAB as per MIHAN Submission

Forecast Regulated Asset Base (RAB) in INR crores		Initial RAB				
		2016-17	2017-18	2018-19	2019-20	2020-21
Opening RAB (t-1)	OR	115.61	128.85	155.15	193.01	201.96
Commissioned assets	CA	20.28	34.91	48.58	21.37	11.64
Depreciation	DR	7.05	8.62	10.73	12.41	13.06
Disposals	DI	0.00	0.00	0.00	0.00	0.00
Incentive adjustments	IA	0.00	0.00	0.00	0.00	0.00
Closing RAB (t)	CR=OR+CA-DR-DI+IA	128.86	155.15	193.01	201.97	200.55
RAB for calculating ARR	RAB=(OR+CR)/2	122.24	142.01	174.08	197.49	201.26

4.19 The Revised RAB calculated by the Authority

Table 9: Revised RAB calculated by the Authority for the control period.

Forecast Regulated Asset Base (RAB) in INR crores		Initial RAB				
		2016-17	2017-18	2018-19	2019-20	2020-21
Opening RAB (t-1)	OR	88.12	98.39	127.97	168.31	180.56
Assets to be commissioned	CA	14.05	34.91	48.59	21.37	11.64
Depreciation	DR	3.78	5.33	8.26	9.12	9.61
Disposals	DI	0.00	0.00	0.00	0.00	0.00
Incentive adjustments	IA	0.00	0.00	0.00	0.00	0.00
Closing RAB (t)	CR=OR+CA-DR-DI+IA	98.39	127.97	168.31	180.56	182.59
RAB for calculating ARR	RAB=(OR+CR)/2	93.26	113.18	148.14	174.43	181.57

Proposal No. 1 – RAB & Depreciation

- 1 (a) The Authority has proposed to accept the opening RAB based on the value of asset transferred by AAI to MIHAN.
- 1 (b) The Authority has proposed to allocate the value of the Terminal Building into Aeronautical/Non-Aeronautical in the ratio of 95% and 5%, respectively.
- 1 (c) The Authority has proposed to treat all the additions to assets except some items in 2016-17 as Aero assets.
- 1 (d) The Authority has proposed to adopt the depreciation rate as proposed by the Authority in its policy on depreciation.
- 1 (e) The Authority has proposed to adopt the addition to the RAB in the Control period as stated in Table No.4 and depreciation on RAB as shown in the Table No.7.
- 1 (f) The Authority has proposed to adopt RAB during the control period as per Table 9 above.
- 1 (g) The Authority has proposed to true up the average RAB to be based on actual date of capitalization.

5. FAIR RATE OF RETURN (FRoR)

5.1 MIHAN submission.

5.1.1 The cost of equity (COE) is estimated based on the COE values approved by the authority for MIAL and DIAL in their respective proposals and report by M/s SBI Capital Markets Ltd (SBI CAPS) on the fair return on equity for the Indian airport sector.

5.1.2 The cost of debt (COD) is estimated based on the COD values approved by the authority for MIAL and DIAL in their respective proposals and the current market rate of borrowing in the infrastructure sector.

5.1.3 The forecast for FRoR has been arrived at by calculating the weighted average gearing for the control period as per the guidelines. The cost of debt and cost of equity assumptions are mentioned above. Since MIL is jointly owned by MADC and AAI, the cost of equity is directly adopted as suggested above.

5.1.4 MIL in its submission has proposed the capital structure, funding mechanism, and FRoR as provided below:

Table 10: FRoR proposed by MIL

		2016-17	2017-18	2018-19	2019-20	2020-21
Fair Rate of Return	$(g \times R_d) + ((1-g) \times R_e)$					
Debt in INR crores	D	108.84	143.75	181.45	189.54	184.36
Equity in INR crores	E	20.00	20.00	20.00	20.00	20.00
Debt + Equity	C	128.84	163.75	201.45	209.54	204.36
Cost of debt	k_d	0.1	0.1	0.1	0.1	0.1
Cost of equity	k_e	0.2	0.2	0.2	0.2	0.2
Individual year gearing	G	0.8	0.9	0.9	0.9	0.9
Weighted average gearing	WG	0.9				
Weighted average cost of debt	R_d	10.5%				
Cost of equity	R_e	18.5%				
Fair Rate of Return	FRoR	11.4%	11.4%	11.4%	11.4%	11.4%

5.2 Authority's Examination

5.2.1 The Authority has proposed to fix fair return on equity at 16% p.a. as considered in the tariff determination process for other similar airports considering the higher risks involved in the project development.

5.2.2 The Authority has noted that the debt taken from MADC towards payment of outstanding salary has been included in the Capex requirement. It has to form a part of the working capital and interest if any on borrowing to repay the dues to AAI will form a part of the opex. Therefore, the calculation of debt for the control period has been modified for arriving at revised FRoR.

5.2.3 Additionally, the Authority has observed that the Debt of INR 86.22 crores towards AAI assets has been continued as a long term liability in the control period which is not getting reflected in the debt and equity calculation for weighted average cost of capital. Also, these assets have been included in the calculation of initial RAB and hence they should also form a part of WACC calculation. MIHAN has not stated the source of fund for repayment and any interest to be payable. In the absence of the same, the Authority proposes to consider this outstanding amount as a long term debt at zero percent interest rate from AAI (in absence of any agreement/document) and accordingly adjust the debt equity ratio for arriving at the revised WACC.

Table 11: Modified calculation for FRoR:

		2016-17	2017-18	2018-19	2019-20	2020-21
Fair Rate of Return	$(g \times R_d) + ((1-g) \times R_e)$					
Debt in INR crores	D	14.05	48.96	96.15	112.76	115.26
AAI assets as zero interest Debt in INR crores		86.22	86.22	86.22	86.22	86.22
Equity in INR Crores	E	20.00	20.00	20.00	20.00	20.00
Debt + Equity	C	120.27	155.18	202.37	218.98	221.49
Cost of debt	kd	10.5%	10.5%	10.5%	10.5%	10.5%
Cost of equity	ke	16.0%	16.0%	16.0%	16.0%	16.0%
Average cost of debt		1.5%	3.8%	5.5%	6.0%	6.0%
Individual year gearing	G	83.4%	87.1%	90.1%	90.9%	91.0%
Weighted average gearing	WG	87.9%				
Weighted average cost of debt	Rd	4.6%				
Cost of equity	Re	16.0%				
Fair Rate of Return	FRoR	5.9%	5.9%	5.9%	5.9%	5.9%

5.2.4 MIHAN does not have any internal accrual or reserve fund. Moreover, it has not stated how it will fund the future capital expenditure. In the absence of surplus internal accrual, the future capex has to be funded by equity/debt. In absence of any specific information Authority has presumed that, the future capex will be funded through debt from MADC.

Proposal No. 2 – Fair Rate of Return.

- 2.a** The authority proposes to consider the cost of equity as 16% p.a. and cost of debt as 10.5% p.a. for the control period.
- 2.b** The authority proposes to consider the amount payable to AAI for the asset transferred as long term liability/debt at zero interest from AAI.
- 2.c** The Authority has assumed that capital additions during the control period will be funded through debt.
- 2.d** The FRoR will be fixed based on the actual debt equity ratio and actual cost of debt and equity at the time of truing up in next control period.

6 OPERATION AND MAINTENANCE EXPENDITURE

MIHAN Submission.

- 6.1 The O&M expenses under various heads are calculated/ projected by escalating the O&M expenses as per the last audited financials of MIL based on their overall contribution and historical growth rate.

Table 12: Expense Heads

Expense head	
Employee costs	Cost of salary and other benefits provided to the payroll staff of MIHAN
Operating expenses	Operating expenses include fuel expenses, property tax , licence and registration fees
Repair and maintenance	Expenses towards annual repair and maintenance of existing facility
Administration expenses	Expenses towards AAI employees general administration, electricity and water charges, consulting fees, stationary etc.

- 6.2 MIL currently has 124 employees, including 16 on its direct payroll and 108 from AAI. Out of this, only 1 official is looking after the commercial part of the terminal building which is negligible and hence the entire employee cost is treated as Aeronautical expenditure.
- 6.3 The operating and maintenance expenditure for MIL is broadly divided into the following categories with escalations for the control period. As a practice, costs related to employees generally follow a higher than inflation growth rate (10-12%) compared with other O&M expenses.

Table 13: Assumptions for escalations in expenses

Escalations in expenses	
Employee Costs for MIL	12%
Department wise outsourcing costs	10%
Repair and Maintenance	10%
Administration and General Exp	10%
AAI employee cost	10%
AAI employee cost in 2016-17 due to 7th pay commission	30%
Licence fees to DGCA in INR	212500.00
Outsourcing contractors expense	10%
Utilities charges	8%
CISF expenses shortfall cost	10%

- 6.4 The security related expenses are not included in the calculation of total O & M expenses for MIL as they are serviced by the security component of the PSF charges collected from the passengers. However MIL has been incurring additional expenses to service CISF cost as the amount collected through the PSF component falls short as compared to actual expenses. Hence CISF expenses shortfall has been considered as a part of the total O & M expenses.
- 6.5 MIHAN has obtained a loan of Rs 25.00 crore from MADC for settlement of part dues of AAI staff salary. The loan bears an interest rate of 12%.
- 6.6 Projected operation and maintenance cost for the control period.

Table 14: Opex as per MIL submissions

	2016-17	2017-18	2018-19	2019-20	2020-21
Opex in INR crores					
Employee Costs for MIL	1.62	1.82	2.04	2.28	2.56
Repair and Maintenance	6.53	7.18	7.90	8.69	9.56
Administration and General Exp	2.79	3.07	3.38	3.72	4.09
Rates and taxes	0.19	0.22	0.24	0.27	0.30
Legal Expenses	0.01	0.02	0.02	0.03	0.03
Consultancy/Advisory fees	0.18	0.23	0.28	0.35	0.44
AAI employees payment	15.71	17.28	19.01	20.91	23.00
Collection Charges On PSF(F)	0.14	0.15	0.16	0.18	0.19
License Fees	0.00	0.00	0.00	0.02	0.02
Outsourcing contractors expense	1.16	1.39	1.61	1.85	2.10
Utilities Charges	6.44	6.95	7.51	8.11	8.76
CISF collection shortfall	8.00	8.80	9.68	10.65	11.71
Total Costs	42.76	47.12	51.84	57.05	62.76

6.7 Authority's Examination:

- 6.7.1 The Authority observes that CISF shortfall expenses have been included under operational expenditure which is not correct. CISF expenses are to be borne out of PSF(SC) and any shortfall may not be passed to the passengers. Hence that component is deducted from the overall opex calculations.
- 6.7.2 The Authority has examined the projected items of operating expenses and there is no classification into opex attributed to aeronautical services and non-aeronautical services as submitted by MIL. Since the non –aeronautical assets are assumed at 5% only for Terminal Building the opex related to non-aeronautical assets for Terminal Building is also to be assumed at 5% and the same should be deducted from the calculation of aggregate revenue requirement.
- 6.7.3 The Authority has examined that the rise in AAI Employee's Salary has been taken as 30 % in first year and 10% in the next four years of control period. However, Authority has allowed 25% and 7% respectively for rise in salary as per the 7th pay

commission in case of Trivandrum and hence Authority has reduced it to 25% and 7% respectively.

6.7.4 As per para 5.2.2 of this consultation paper, the Authority has proposed to add the financing charges on working capital as a part of opex calculations for arriving at ARR and consider actual opex incurred for 2016-17.

6.7.5 Base on the actual expenditure for 2016-17. The revised opex expenditure is given below:

Table 15: Revised Opex calculations

	2016-17	2017-18	2018-19	2019-20	2020-21
Opex in INR crores					
Employee Costs for MIL	1.45	1.63	1.82	2.04	2.29
Repair and Maintenance	5.04	5.54	6.10	6.71	7.38
Administration and General Exp	4.68	5.15	5.66	6.23	6.85
Rates and taxes	0.18	0.22	0.25	0.28	0.31
Legal Expenses	0.01	0.02	0.02	0.03	0.03
Consultancy/Advisory fees	0.18	0.22	0.28	0.35	0.43
AAI employees payment	12.10	12.95	13.85	14.82	15.86
Collection Charges On PSF(F)	0.32	0.15	0.16	0.18	0.19
License Fees	0.02	0.02	0.02	0.02	0.02
Outsourcing contractors expense	1.45	1.32	1.53	1.75	1.99
Utilities Charges	5.85	6.31	6.82	7.36	7.95
Total Costs	31.27	33.53	36.52	39.77	43.31
Financing Charges	1.98	6.25	8.82	8.82	8.82
Total Opex for ARR	33.26	39.78	45.34	48.59	52.13

Proposal No. 3 – Operation & Maintenance expenditure.

Regarding operation and maintenance expenditure.

- 3 (a)** The Authority proposes to consider the operational and maintenance expenditure as given in Table No. 15, for the determination of aeronautical tariff.
- 3 (b)** The Authority proposes to true up the operating expenditure based on actual expenditure during the control period.

7 REVENUE FROM SERVICES OTHER THAN AERONAUTICAL SERVICES

MIHAN Submission.

- 7.1 MIL has submitted the forecasts of various components of non-aeronautical revenue streams as well as the assumptions underlying the forecast.
- 7.2 Non-aeronautical revenue consists of a variety of handling and commercial services provided at an airport. As per the guidelines, services pertaining to all revenues (including revenue share, royalty and dividend) earned by airport operators from independent service provider(s) for service(s) provided for ground-handling services relating to aircraft, passengers and cargo at the airport shall be treated as NAR.
- 7.3 The domestic cargo is handled by the airlines. These airlines pay screening charges to MIL, apart from license fees. Currently, activities including commercial – restaurants, services, advertising, ground handling, car parking and others – have been licensed out to service operators. These service operators make monthly payments to MIL based on their contract’s terms and conditions. In case of ground handling, together with monthly payments, MIL also follows a revenue sharing model with 36% share rate of royalty over GTO.
- 7.4 As suggested by AERA, all revenues (including revenue share, royalty and dividend) earned by the MIL from independent service provider(s) for service(s) provided for ground handling services, passengers and cargo at a Major Airport; the cargo facility at a Major Airport; and supplying fuel to the aircraft at a Major Airport, for calculation of overall passenger yield.
- 7.5 Revenue from Non-Aeronautical Services projected by MIHAN.

Table 16: Revenue from Non-Aeronautical Services as per MIL submissions

Non-Aeronautical Revenues in INR crores	2016-17	2017-18	2018-19	2019-20	2020-21
Existing Terminal					
License Fees	9.42	10.36	11.39	12.53	13.79
Retiring Room charges	0.00	0.00	0.00	0.00	0.00
Entry Ticket Collection	0.21	0.24	0.28	0.31	0.35
Pushback services charges	0.11	0.12	0.14	0.15	0.17
Other Collection	1.81	2.00	2.20	2.42	2.66
Royalty on L.Fee- GH	0.15	0.18	0.20	0.22	0.25
Advertising rent	1.87	2.06	2.26	2.49	2.74
Total Non-Aeronautical Revenue	13.57	14.95	16.46	18.13	19.95

7.6 The breakup of license fees as given in the proposal is given below:

Table 17: Breakup of License fees as per MIL submissions

In INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
L.F. For Paved & Unpaved Land - other 1	3.51	3.86	4.24	4.67	5.13
L.F. For Car Parking - other 2	1.15	1.27	1.39	1.53	1.69
License Fees	2.01	2.21	2.43	2.67	2.94
Royalty License Fees	2.03	2.23	2.46	2.70	2.97
L.F. For Airport Restaurant	0.33	0.36	0.40	0.44	0.49
L.F. For Snack Bar	0.30	0.33	0.37	0.40	0.44
L.F. For Bank ATM Counter	0.08	0.09	0.10	0.11	0.12
Total License Fees	9.42	10.36	11.39	12.53	13.79

7.7 As per the existing practice at MIL, the rentals charged as per the license fee agreement are escalated at 10% p.a. The area of the terminal building is currently 17,500 sq.mtr.

7.8 The revenues realized from non-aeronautical services consist of the following components. All the charges pertaining to NAR and their estimated escalation for the control period are showcased below:

Table 18: Assumptions for projection of NAR as per MIL submissions

NAR	Growth rate
Licence fees	10%
Entry ticket collection	As per passenger growth rate
Pushback services charges	as per aircraft growth rate
Other miscellaneous income	10%
Royalty on licence fee – ground handling	as per aircraft growth rate
Advertising rent	10%

7.9 The charges mapped to either passenger or aircraft growth rate have been further escalated by 5% annually. The other charges have been escalated by 10% per annum, in line with the current contracts of MIL.

Authority's Examination

7.10 The authority notes that the revenue from pushback charges and royalty from ground handling activities have been included in the non- aeronautical revenues which need to be treated as aeronautical revenue.

The Authority has considered actual NAR collected for 2016-17. Therefore the projections for each head under NAR will change since they are calculated with 2016-17 as the base year instead on 2015-16. As per the changes, the revised non - aeronautical revenue is as follows:

Table 19: Revised Revenue from Non-Aeronautical Services Rs. Crs.

Non-Aeronautical Revenue in INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
Existing Terminal					
License Fees	8.32	9.15	10.07	11.08	12.18
Entry Ticket Collection	0.24	0.28	0.31	0.35	0.40
Other Collection	1.58	1.74	1.92	2.11	2.32
Advertising rent	1.87	2.05	2.25	2.48	2.73
Total Non-Aeronautical Revenue	12.01	13.22	14.55	16.02	17.63

Proposal No. 4 – Non Aeronautical Expenses.

Regarding Non-Aeronautical Revenue.

- 4 (a)** The Authority proposes to consider the Non-Aeronautical Revenue as given in Table No.19 for determination of Aeronautical Tariff.
- 4 (b)** The Authority has proposed to true up the Non-Aeronautical Revenue based on the actual Non-Aeronautical Revenue earned during control period.

8 TAXATION

MIHAN Submission.

8.1 The taxation schedule has been prepared based on the net taxable income derived from the projected profit and loss account for the control period. Clause 5.5.1 and Clause 5.5.2 of the Airport Guidelines state that:

“Taxation represents payments by the Airport Operator in respect of corporate tax on income from assets/ amenities/ facilities/ services taken into consideration for determination of Aggregate Revenue Requirement.”

“The Authority shall review forecast for corporate tax calculation with a view to ascertain inter alia the appropriateness of the allocation and the calculations thereof.”

8.2 As per the Airport Guidelines any interest payments, penalty, fines and other such penal levies associated with corporate tax, shall not be taken into consideration as expenditure or cost.

8.3 As per the projected P&L for MIL over the control period, the Profit before Tax for each year is negative and hence the overall tax liability for MIL for the control period is zero as given in the table below:

Table 20: Tax liability as per MIL’s submission

In INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
Revenue					
Aero Revenue	23.59	29.17	32.51	35.99	39.82
Non-aero Revenue	13.57	14.95	16.46	18.13	19.96
Total	37.16	44.12	48.97	54.12	59.78
Opex	42.76	47.12	51.84	57.05	62.76
Total	42.76	47.12	51.84	57.05	62.76
EBITDA	-5.61	-3.00	-2.87	-2.93	-2.98
Depreciation	7.05	8.62	10.73	12.41	13.06
EBIT	-12.65	-11.62	-13.60	-15.35	-16.04
Interest on Debt	6.53	15.16	19.51	22.26	22.43
Interest on WC	0.67	1.05	1.05	1.05	1.05
PBT	-19.85	-27.82	-34.16	-38.66	-39.52
Tax	0.00	0.00	0.00	0.00	0.00
PAT	-19.85	-27.82	-34.16	-38.66	-39.52

Authority's Examination

8.4 The Authority observes that MIL has projected year on year losses and hence there is no tax liability post incorporation of all changes made by the Authority.

Table 21: Revised Net Tax liability as per Authority.

In INR Crores	2016-17	2017-18	2018-19	2019-20	2020-21
Revenue					
Aero Revenue	24.30	30.20	38.09	42.22	46.75
Non-aero Revenue	12.01	13.22	14.55	16.02	17.63
Total	36.31	43.43	52.64	58.23	64.38
Opex	32.92	35.29	38.44	41.86	45.59
Total	32.92	35.29	38.44	41.86	45.59
EBITDA	3.39	8.14	14.20	16.38	18.79
Depreciation	3.78	5.33	8.26	9.12	9.61
EBIT	-0.39	2.82	5.94	7.25	9.18
Interest on Debt	0.84	3.78	8.71	12.53	13.68
Interest on WC	1.98	6.25	8.82	8.82	8.82
PBT	-3.22	-7.21	-11.58	-14.10	-13.32
Tax	0.00	0.00	0.00	0.00	0.00
PAT	-3.22	-7.21	-11.58	-14.10	-13.32

Proposal No. 5 - Taxation

5 (a) Since there is no PBT as shown in Table No. 21, the Authority has not considered any Tax liability in calculation of ARR.

9 AGGREGATE REVENUE REQUIREMENT

9.1 The Aggregate Revenue Requirement (ARR) computed by MIL for the first control period is as follows:

Table 22: ARR calculation as per MIL's submission

	2016-17	2017-18	2018-19	2019-20	2020-21
Aggregate Revenue Requirement in INR Crores					
FRoR X RAB	13.99	16.25	19.92	22.60	23.03
Depreciation	7.05	8.62	10.73	12.41	13.06
Operating and Maintenance Expenditure	42.76	47.12	51.84	57.05	62.76
Taxation	0.00	0.00	0.00	0.00	0.00
Less: 0.3*Non Aeronautical Revenue	4.07	4.49	4.94	5.44	5.99
Net ARR	59.73	67.50	77.55	86.63	92.86

Authority's Examination:

9.2 The Authority has made corrections in the FRoR, additions to RAB, depreciation, opex, Traffic projections and revenue calculations as stated in the previous chapters. Based on these changes, the revised ARR as per the Authority for the First Control Period is stated below:-

Table 23: Revised ARR calculation

	2016-17	2017-18	2018-19	2019-20	2020-21
Aggregate Revenue Requirement in INR Crores					
FRoR X RAB	5.54	6.73	8.80	10.37	10.79
Depreciation	3.78	5.33	8.26	9.12	9.61
Operating and Maintenance Expenditure	33.26	39.79	45.34	48.59	52.13
Taxation	0.00	0.00	0.00	0.00	0.00
Less: 0.3*Non Aeronautical Revenue	3.60	3.97	4.37	4.81	5.29
Net ARR	38.98	47.87	58.03	63.27	67.24

Proposal No. 6 - Regarding ARR

- 6 (a) The Authority has proposed to consider the ARR as determined in *Table 23* for determination of aeronautical tariffs for the first control period.
- 6 (b) True up of all the building blocks shall be considered in the next control period.

10 TRAFFIC FORECAST

MIHAN Submission.

10.1 Passenger, aircraft movement and cargo traffic for the control period have been projected based on the historical long term compounded growth rate combined with recent trends.

Table 24: Passenger Traffic at Nagpur Airport

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	
Passenger In Numbers	FY11	FY12	FY13	FY14	FY15	FY16	CAGR
Domestic	1199567	1377039	1219,045	1220256	1356320	1520963	5%
International	37165	38700	43876	43581	44827	74278	15%
Total	1236732	1415739	1262921	1263837	1401147	1595241	5%

10.2 Although the growth rate for passenger traffic in 2016-17 has been on the higher side, it has been gradually reduced based on the historic long term growth rate. The compounded annual growth rate during 2011-12 to 2015 -16 is 5%. The initial growth rate for the passengers and ATM is based on the actual data as on 30th October 2016 and the same trend has been continued for the next year as it is envisaged that the trend will continue for 2017-18 as well. This is mainly due to additions of new flights. However the cargo traffic is expected to increase in the next 3-4 years owing to the speedy development of various manufacturing units in and around the airport area and MIHAN SEZ.

10.3 Projected growth rates as per MIHAN are given in table below:

Table 25: Projected growth rate for the control period

	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger Domestic	11 %	11 %	8 %	8 %	8 %
Passenger International	30 %	15 %	10 %	10 %	10 %
Freight Domestic	5 %	5 %	7 %	7 %	7 %
Freight International	7 %	7 %	10 %	10 %	10 %
ATM Domestic	10 %	10 %	7 %	7 %	7 %
ATM International	5 %	5 %	4 %	4 %	4 %

10.4 Based on the above the projected traffic for the airport is given in the table below:

Table 26: Projected traffic at Nagpur Airport

	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger in Nos.					
Domestic	1680664	1857134	1996419	2146150	2307112
Scheduled	1678983	1855277	1994422	2144004	2304804
Non-scheduled	1681	1857	1996	2146	2307
International	96561.4	111045.6	122150.2	134365.2	147801.7
Number of departing PAX Dom	839492	927638	997211	1072002	1152402
Number of departing PAX Int	48281	55523	61075	67183	73901
Total	1777226	1968179	2118569	2280515	2454913
Freight in tonnes					
Domestic	6256	6569	7029	7520	8047
International	517	553	608	669	736
<i>SEZ Cargo</i>					
Domestic	0	740	740	1490	2230
International	0	370	370	740	1100
Total	6773	8232	8747	10420	12113
Aircraft movement in Nos.					
Domestic	13834	15217	16282	17422	18641
International	882	926	963	1002	1042
Total no. of Flights	14716	16143	17245	18424	19683
Number of Landing Flights	7358	8072	8623	9212	9842
Number of flights in a day	21	23	24	26	27
Number of flights in an hour	1	1	1	2	2

Authority's Examination:

10.5 The Authority has adopted the actual traffic for 2016-17 and estimated the traffic on the basis of the growth rates as projected by MIL based on historic growth rate and current scenario. Accordingly the traffic projections have been estimated as given in the table below.

Table 27: Projected traffic at Nagpur Airport

	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger in Nos.					
Domestic	1782212.0	1969344	2117045	2275823	2446510
Scheduled	1780430	1967375	2114928	2273548	2444064
Non-scheduled	1782	1969	2117	2276	2447
International	109263.0	125652	138218	152039	167243
Number of departing PAX Dom	890215	983687	1057464	1136774	1222032
Number of departing PAX Int	54632	62826	69109	76020	83622
Total	1891475	2094997	2255263	2427863	2613754
Freight in tonnes					
Domestic	6726.0	7062	7557	8086	8652
International	419.0	448	493	542	597

<i>SEZ Cargo</i>					
Domestic	0	740	740	1490	2230
International	0	370	370	740	1100
Total	7145	8621	9160	10858	12578
Aircraft movement in Nos.					
Domestic	14656.0	16122	17250	18458	19750
International	1406.0	1476	1535	1597	1661
Total no. of Flights	16062	17598	18785	20054	21410
Number of Landing Flights	8031	8799	9393	10027	10705
Number of flights in a day	23	25	26	28	30
Number of flights in an hour	1	2	2	2	2

11 REVENUE FROM AERONAUTICAL SERVICES

MIHANS SUBMISSION

11.1 Revenues from Aeronautical services (passenger, cargo) are considered as aeronautical revenues. As per the guidelines, aeronautical revenues include revenues earned from landing, parking and housing charges charged to the airlines, passenger service fees charged to the passengers, cargo charges, fuel throughput charges and cargo handled by the airport operators.

Currently, charges pertaining to landing, parking and housing of the aircrafts levied at Nagpur Airport are based on AAI's published rates. These rates were revised back in 2009-10 and no revision has been made till date.

As mentioned earlier, the landing, parking and housing charges currently levied at Nagpur Airport were revised back in 2009-10 by AAI, and no revision has been made since then. However, the charges for cargo were revised recently, in May 2016.

The aircraft mix is projected based on the current aircraft mix serviced at the airport for the initial years. Post the completion of the airport modernization project, the proportion of wide bodied aircrafts is expected to increase in medium term. In order to calculate the projected revenues from aeronautical services, the following mix of aircraft is considered.

Table 28: Proposed Aircraft Mix

Maximum take-off weight (MTOW)								
ATR	23							
Narrow body aircraft (NBA)	73							
Wide body aircraft (WBA)	188							
Domestic ATM	2014	2015	2016	2017	2018	2019	2020	2021
ATR	10%	10%	10%	10%	10%	10%	10%	10%
NBA	90%	90%	90%	90%	90%	90%	90%	90%
WBA	0%	0%	0%	0%	0%	0%	0%	0%
International ATM								
Narrow body aircraft (NBA)	100%	100%	100%	100%	100%	95%	95%	95%
Wide body aircraft (WBA)	0%	0%	0%	0%	0%	5%	5%	5%

11.2 Landing charges

Landing charges were revised by AAI back in 2009-10, and no revision has been made since then. However, the O&M Expenses have increased significantly whereas the tariff has remained at the constant levels. Therefore except for the current year, these charges have been increased by 30% in order to reduce the anomalies between the expenses and the revenues derived from airlines.

11.3 Parking and housing charges

Currently, Nagpur Airport is not a hub port/base for any of the airlines operating out of it. Hence, there is limited/no revenue earned from parking or housing of the aircrafts. Going forward, this scenario is likely to change, and hence we have gradually increased the proportion of the aircraft using this airport for parking and housing. The following table covers the prevailing rates at the airport for parking and housing charges:

Table 29: Current Parking and housing charges

Parking & housing charges		Parking charges	Housing charges
Up to 40 MT (Rs per MT)		2	4
Above 40 MT up to 100 MT	INR	72	140
	Incremental – (INR per MT)	3	7
Above 100 MT	INR	276	548
	Incremental – (INR per MT)	5	10
Common Assumptions			
Free duration (in hours)		2	
Average housing duration (in hours)		0	
Parking fees applicable (in hours)		4	
Housing fees applicable (in hours)		0	
Aircraft parking bays (in nos.)		12	

11.4 Passenger service fees

These are charges collected from the passenger for the use of passenger terminal and other passenger related services as described earlier. Since these charges are constant for all the airports in the country, there is no visibility regarding the revision of these charges in the short to medium term. And hence these charges are maintained at constant level throughout the control period.

Note: The Security component of the PSF is not considered while arriving at the total revenue for MIL.

Since very limited quantity of cargo is handled by MIL ~500-600 MT per annum the revenue derived from this activity has been projected based on the growth rate of cargo assumed for this control period.

11.5 Throughput Charges

The revenue derived from throughput charges have been increased as per the aircraft growth projections and further escalated by an inflation rate of 5%.

11.6 CUTE Charges

MIL is setting up CUTE system which shall be commissioned in 2017-18 and the revenue is expected to be generated based on MIL's share is given in the table below:

	INR per passenger	MIL Share
Cute charges from 2017-18 onwards	60	44%

The total Aeronautical revenues projected for the control period is given in the table below:

Table 30: Proposed Aeronautical Revenue as submitted by MIL

INR in crs					
Aeronautical Revenue	1-Apr-16	1-Apr-17	1-Apr-18	1-Apr-19	1-Apr-20
	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Aeronautical Revenue (Domestic)					
Landing fee					
<i>ATR</i>	0.23	0.26	0.30	0.33	0.38
<i>NBA</i>	12.02	13.89	15.60	17.53	19.69
<i>WBA</i>	-	-	-	-	-
Parking fee					
<i>ATR</i>	0.00	0.00	0.00	0.00	0.00
<i>NBA</i>	0.13	0.15	0.16	0.22	0.25
<i>WBA</i>	-	-	-	-	-
Housing Fee					
<i>ATR</i>	-	-	-	-	-
<i>NBA</i>	-	-	-	-	-
<i>WBA</i>	-	-	-	-	-
Aeronautical Revenue (International)					
Landing fee					
<i>Narrow Body Aircraft</i>	1.40	1.54	1.60	1.75	1.91
<i>Wide Body Aircraft</i>	-	-	0.27	0.30	0.33
Parking fee					
<i>Narrow Body Aircraft</i>	0.00	0.00	0.00	0.01	0.01
<i>Wide Body Aircraft</i>	-	-	0.00	0.00	0.00
Housing Fee					
<i>Narrow Body Aircraft</i>	-	-	-	-	-
<i>Wide Body Aircraft</i>	-	-	-	-	-
Passenger Service fee - Passenger facility	6.84	7.57	8.15	8.77	9.44
Cute charges for MIL	-	2.34	2.60	2.79	3.01
Freight	-	-	-	-	-
International	0.26	0.28	0.31	0.34	0.38
Throughput charges	2.71	3.13	3.51	3.95	4.44
Total Aeronautical Revenue	23.59	29.17	32.51	35.99	39.82

Authority's Examination

11.7 The Authority examined that the revenue from X-ray scanning of domestic cargo, pushback charges and royalty from ground handling activities into Aeronautical revenue and consider the aeronautical revenue for 2016-17 based on actual collection. Also, MIL clarified that the CUTE facilities will be operational from January 2018 and the same has been apportioned in the revenue calculation under CUTE charges. The revised charges are as follows:

Table 31: Revised Aeronautical Revenue as calculated by the Authority

INR in crs

Aeronautical Revenue	1-Apr-16	1-Apr-17	1-Apr-18	1-Apr-19	1-Apr-20
Aeronautical Revenue	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Aeronautical Revenue (Domestic)					
Landing fee	11.91	15.43	19.86	22.20	24.84
Parking fee	0.07	0.14	0.18	0.24	0.27
Housing Fee	0.0	0.0	0.0	0.0	0.0
Passenger Service fee - Passenger facility	7.41	8.06	8.67	9.34	10.05
Cute charges for MIL	0.00	0.62	2.76	2.97	3.20
Freight					
International	0.26	0.28	0.30	0.33	0.37
Domestic	0.24	0.59	0.62	0.72	0.82
Throughput charges	2.61	3.01	3.38	3.80	4.27
Royalty on L.Fee- GH	1.71	1.97	2.21	2.49	2.79
Pushback services charges	0.09	0.10	0.11	0.13	0.14
Total Aeronautical Revenue	24.30	30.20	38.09	42.22	46.75

Note: Aero revenue for 2016-17 is based on actual collection. For the first half year of 2017-18 the proposed increase of 30% in LPH tariff has not been considered. While for the rest of the control period it is projected based on assumptions stated in the previous chapters and proposed increase in LPH tariff by 30%.

12 COMPARISON OF ARR WITH PROJECTED AERONAUTICAL REVENUE

12.1 Shortfall as per MIL for the first control period is as follows:

Table 32: Projected UDF as submitted by MIL

Revenue Shortfall	1-Apr-16	1-Apr-17	1-Apr-18	1-Apr-19	1-Apr-20
IN INR Crores	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Forecast ARR	59.73	67.50	77.55	86.63	92.86
Actual Aeronautical Revenue w/o UDF	23.59	29.17	32.51	35.99	39.82
Revenue Shortfall	36.14	38.34	45.04	50.63	53.04
PV of Revenue Shortfall	36.14	34.40	40.42	45.44	47.59
No. of Departing Passengers					
Domestic	839491.7	927638.4	997211.2	1072002.1	1152402.2
International	48280.7	55522.8	61075.1	67182.6	73900.9
Total	887772.4	983161.2	1058286.3	1139184.7	1226303.1
Yield Per Passenger	407.1	389.9	425.6	444.5	432.5
<i>Average</i>	419.9				
Weighted Average UDF	386.1	331.2	361.1	376.6	366.1
Domestic UDF	386.1	331.2	361.1	376.6	366.1
International UDF	772.2	662.4	722.1	753.3	732.1
<i>Average Domestic UDF in INR</i>	364.2				
<i>Average International UDF in INR</i>	728.4				

12.2 Authority's Examination:

As per Authority's examination and revision of various building blocks, the shortfall in revenue is calculated as follows:

Table 33: Revised UDF as calculated by the Authority

Revenue Shortfall	1-Apr-16	1-Apr-17	1-Apr-18	1-Apr-19	1-Apr-20
IN INR Crores	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Forecast ARR	38.98	47.87	58.03	63.27	67.24
Actual Aeronautical Revenue w/o UDF	24.30	30.20	38.09	42.22	46.75
Revenue Shortfall	14.68	17.65	19.94	21.05	20.49
PV of Revenue Shortfall	14.68	16.66	18.83	19.87	19.34
No. of Departing Passengers					
Domestic	890214.9	983687.5	1057464.0	1136773.8	1222031.9
International	54631.5	62826.2	69108.8	76019.7	83621.7
Total	944846.4	1046513.7	1126572.9	1212793.6	1305653.6
Yield Per Passenger	155.4	168.7	177.0	173.6	156.9
<i>Average</i>	166.3				
Weighted Average UDF	146.9	150.2	157.5	154.2	139.2
Domestic UDF	146.9	150.2	157.5	154.2	139.2
International UDF	293.7	300.4	314.9	308.3	278.4
<i>Average Domestic UDF in INR</i>	149.6				
<i>Average International UDF in INR</i>	299.2				

13 PROPOSED TARIFF AND UDF

13.1 MIHAN Submission.

The proposed tariff and UDF amount for the first control period is calculated based on the following parameters. The tariff is calculated based on the Hybrid Till as per the revised guidelines of AERA. The resultant UDF for domestic and international Passenger has been apportioned in the ratio 1:2.

Table 34: Proposed revision in Tariff and UDF to be levied

Base Case		
Parameters		
1.	Hybrid Till	30% (NAR)
2.	LPH % Increase	30%
3.	Cost of Equity	18.5%
4.	Cost of Debt	10.5%
5.	PSF – Facilitation Component	Rs. 77
Result		
1.	UDF Domestic (INR/Passenger)	364.2
2.	UDF International (INR/Passenger)	728.4

13.2 The table below provides the revised LPH charges:

Table 35: Housing charges (International/Domestic charges)

Weight of Aircraft	Rate per hour (Amount in Rs.)	Revised Rate per hour (Amount in Rs.)
Up to 40,000 Kgs	Rs. 3.50 per hour per 1,000 Kgs	Rs. 5.25 per hour per 1,000 Kgs
40,001 Kgs to 1,00,000 Kgs	Rs. 140/- Plus Rs. 6.80 per hour per 1,000 in excess of 40,000 Kgs	Rs. 210/- Plus Rs. 10.20 per hour per 1,000 in excess of 40,000 Kgs
Over 1,00,000 Kgs	Rs. 548/- Plus Rs. 10.30 per hour per 1,000 Kgs in excess of 1,00,000 Kgs	Rs. 822/- Plus Rs. 15.45 per hour per 1,000 Kgs in excess of 1,00,000 Kgs

Table 36: Parking charges (International/Domestic charges)

Weight of Aircraft	Rate per Hour (Amount in Rs.)	Revised Rate per hour (Amount in Rs.)
Up to 40,000 Kgs	Rs. 1.80 per hour per 1,000 Kgs	Rs. 2.70 per hour per 1,000 Kgs
40,001 to 1,00,000 Kgs	Rs. 72/- Plus Rs. 3.40 per 1,000 Kg per hour of 40,000	Rs. 108/- Plus Rs. 5.10 per 1,000 Kg per hour of 40,000
Above 100 MT	Rs. 276/- Plus Rs. 5.20 per 1,000 Kg per hour in excess of 1,00,000 Kgs	Rs. 414/- Plus Rs. 7.80 per 1,000 Kg per hour in excess of 1,00,000 Kgs

Table 37: Landing charges (International/Domestic charges)

1. International Flights

Weight of Aircraft	(Amount in Rs.)	Revised rates (Amount in Rs.)
Up to 10,00 Kgs	Rs. 122.10/- per 1,000 Kgs	Rs. 183.15/- per 1,000 Kgs
10,001 Kgs to 20,000 Kgs	Rs. 1221/- Plus Rs. 179.30 per 1,000 Kgs in excess of 10,000 Kgs	Rs. 1831.50/- Plus Rs. 268.95/- per 1,000 Kgs in excess of 10,000 Kgs
20,001 Kgs to 50,000 Kgs	Rs. 3014/- Plus Rs. 354.20 per 1,000 Kgs in excess of 20,000 Kgs	Rs. 4521/- Plus Rs. 531.30 per 1,000 Kgs in excess of 20,000 Kgs
50,001 Kgs to 1,00,000 Kgs	Rs. 13,640/- Plus Rs, 413.60 per 1,000 Kgs in excess of 50,000 Kgs	Rs. 20,460/- Plus Rs. 620.40 per 1,000 Kgs in excess of 50,000 Kgs
Over 1,00,000 Kgs	Rs. 34,320/- Plus Rs. 471.90 per 1,000 Kgs in excess of 1,00,000 Kgs	Rs. 51,480/- Plus Rs. 707.85 per 1,000 Kgs in excess of 1,00,000 Kgs

2. Domestic Flights

Weight of Aircraft	(Amount in Rs.)	Revised Rates (Amount in Rs.)
Up to 10,000 Kgs	Rs. 67.10 per 1,000 Kgs	Rs. 100.65 per 1,000 Kgs
10,001 Kgs to 20,000 Kgs	Rs. 671/- Plus Rs. 117.70 per 1,000 Kgs in excess of 10,000 Kgs	Rs. 1,006.50/- Plus Rs. 176.55 per 1,000 Kgs in excess of 10,000 Kgs
Over 20,000 Kgs	Rs. 1,848/- Plus Rs. 231/- per 1,000 Kgs in excess of 20,000 Kgs	Rs. 2,772/- Plus Rs. 346.50/- per 1,000 Kgs in excess of 20,000 Kgs

13.3 Authority's Examination

1. The Authority noted that the MIHAN proposed Tariff could not be applicable from 01.04.2016. The Authority proposes that the revised tariff at Nagpur Airport will be applicable from 01.10.2017.
2. Further, the Authority noted that the revenue from tariff (Landing, Parking and Housing charges and UDF) as proposed by MIHAN will exceed the proposed ARR for the control period. Hence, the Authority proposes to reduce the UDF as submitted by MIHAN such that the revised tariff is equivalent to the ARR. The revised tariffs as applicable from 01.10.2017 as submitted by MIHAN and as proposed by the Authority are given in the Annexure-I.

Proposal No. 7 - Regarding tariff rate card

- 7(a) To accept annual tariff proposal as given in Annexure-I for determination of tariff during the first control period.
- 7(b) To continue with waiver of landing charges for (a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic scheduled operators (b) Helicopters of all types as approved by Govt. of India vide order No. G.17018/7/2001-AAI dated 9th Feb 2004 in order to encourage and promote intra-regional connectivity at CIA.
- 7(c) To provide waiver of landing and other charges in line with National Civil Aviation Policy under Regional Connectivity Scheme.

7(d) The Authority proposes to consider shortfall/excess in revenues for the 2nd control period based on proposed tariffs by the Authority while determining aeronautical tariffs for the 3rd control period.

14 SUMMARY OF PROPOSALS

- Proposal No. 1 – RAB & Depreciation..... 14**
- Proposal No. 2 – Fair Rate of Return..... 17**
- Proposal No. 3 – Operation & Maintenance expenditure..... 20**
- Proposal No. 4 – Non Aeronautical Expenses. 23**
- Proposal No. 5 - Taxation..... 25**
- Proposal No. 6 - Regarding ARR..... 26**
- Proposal No. 7 - Regarding tariff rate card..... 37**

15 STAKEHOLDERS' CONSULTATION TIMELINE

15.1 In accordance with the provision of Section 13(4) of the AERA Act, 2008, the proposal contained in the Section – Summary of proposals (Section 14 above) read with the relevant discussion in the other sections of the paper is hereby put forth for Stakeholders' Consultation. To assist the Stakeholders in making their submissions in a meaningful and constructive manner, necessary documents are enclosed as Annexure I. For removal of doubts, it is clarified that the contents of this consultation paper may not be construed as any Order or Direction by the Authority. The Authority shall pass an order in the matter only after considering the submissions of the stakeholders in response hereto and by making such decisions fully documented and explained in terms of the provisions of the Act.

15.2 The Authority welcomes written evidence based feedback, comments and suggestions from stakeholders on the proposals made in (Section 14 above), latest by **21.09.2017** at the following address.

Secretary

Airports Economic Regulatory Authority of India

AERA Building, Administrative Complex Safdarjung Airport

New Delhi -110003

Tel: 011-24695043, Fax: 011-24695039

Email: puja.jindal@nic.in

(S. Machendranathan)
Chairperson

List of Tables

Table 1: Total value of Assets in the control period.....	8
Table 2: Re-calculation of opening RAB	9
Table 3: Proposed addition to RAB (Rs. in crores).....	10
Table 4: Revised additions to RAB Proposed.....	11
Table 5: Depreciation Rates adopted as per Asset Class	12
Table 6: Depreciation Schedule as submitted by MIL.....	12
Table 7: Revised Depreciation Schedule	13
Table 8: RAB as per MIHAN Submission.....	13
Table 9: Revised RAB calculated by the Authority for the control period.	14
Table 10: FRoR proposed by MIL	15
Table 11: Modified calculation for FRoR:	16
Table 12: Expense Heads.....	18
Table 13: Assumptions for escalations in expenses	18
Table 14: Opex as per MIL submissions.....	19
Table 15: Revised Opex calculations.....	20
Table 16: Revenue from Non-Aeronautical Services as per MIL submissions.....	21
Table 17: Breakup of License fees as per MIL submissions.....	22
Table 18: Assumptions for projection of NAR as per MIL submissions.....	22
Table 19: Revised Revenue from Non-Aeronautical Services Rs. Crs.....	23
Table 20: Tax liability as per MIL's submission	24
Table 21: Revised Net Tax liability as per Authority.....	25
Table 22: ARR calculation as per MIL's submission	26
Table 23: Revised ARR calculation	26
Table 24: Passenger Traffic at Nagpur Airport	27
Table 25: Projected growth rate for the control period	27
Table 26: Projected traffic at Nagpur Airport.....	28
Table 27: Projected traffic at Nagpur Airport.....	28
Table 28: Proposed Aircraft Mix.....	30
Table 29: Current Parking and housing charges	31
Table 30: Proposed Aeronautical Revenue as submitted by MIL.....	32
Table 31: Revised Aeronautical Revenue as calculated by the Authority	33
Table 32: Projected UDF as submitted by MIL.....	34
Table 33: Revised UDF as calculated by the Authority	34
Table 34: Proposed revision in Tariff and UDF to be levied.....	35
Table 35: Housing charges (International/Domestic charges)	35
Table 36: Parking charges (International/Domestic charges).....	36
Table 37: Landing charges (International/Domestic charges)	36

Annexure 1: Revised Tariff Card proposed by the Authority

Proposed revision in Tariff and UDF to be levied by Authority

Base Case		
Parameters		
1.	Hybrid Till	30% (NAR)
2.	LPH % Increase	30%
Result		
1.	UDF Domestic (INR/Passenger)	150
2.	UDF International (INR/Passenger)	300

The table below provides the revised LPH charges proposed by the Authority:

Housing charges (International/Domestic charges)

Weight of Aircraft	Revised Rate per hour (Amount in Rs.)
Up to 40,000 Kgs	Rs. 5.25 per hour per 1,000 Kgs
40,001 Kgs to 1,00,000 Kgs	Rs. 210/- Plus Rs. 10.20 per hour per 1,000 in excess of 40,000 Kgs
Over 1,00,000 Kgs	Rs. 822/- Plus Rs. 15.45 per hour per 1,000 Kgs in excess of 1,00,000 Kgs

Parking charges (International/Domestic charges)

Weight of Aircraft	Revised Rate per hour (Amount in Rs.)
Up to 40,000 Kgs	Rs. 2.70 per hour per 1,000 Kgs
40,001 to 1,00,000 Kgs	Rs. 108/- Plus Rs. 5.10 per 1,000 Kg per hour of 40,000
Above 100 MT	Rs. 414/- Plus Rs. 7.80 per 1,000 Kg per hour in excess of 1,00,000 Kgs

Landing charges (International/Domestic charges)

1. International Flights

Weight of Aircraft	Revised rates (Amount in Rs.)
Up to 10,00 Kgs	Rs. 183.15/- per 1,000 Kgs
10,001 Kgs to 20,000 Kgs	Rs. 1831.50/- Plus Rs. 268.95/- per 1,000 Kgs in excess of 10,000 Kgs
20,001 Kgs to 50,000 Kgs	Rs. 4521/- Plus Rs. 531.30 per 1,000 Kgs in excess of 20,000 Kgs
50,001 Kgs to 1,00,000 Kgs	Rs. 20,460/- Plus Rs. 620.40 per 1,000 Kgs in excess of 50,000 Kgs
Over 1,00,000 Kgs	Rs. 51,480/- Plus Rs. 707.85 per 1,000 Kgs in excess of 1,00,000 Kgs

2. Domestic Flights

Weight of Aircraft	Revised Rates (Amount in Rs.)
Up to 10,000 Kgs	Rs. 100.65 per 1,000 Kgs
10,001 Kgs to 20,000 Kgs	Rs. 1,006.50/- Plus Rs. 176.55 per 1,000 Kgs in excess of 10,000 Kgs
Over 20,000 Kgs	Rs. 2,772/- Plus Rs. 346.50/- per 1,000 Kgs in excess of 20,000 Kgs