

Airports Economic Regulatory Authority of India

सत्यमेव जयते

**In the matter of determination of aeronautical tariffs in respect of
Jay Prakash Narayan International Airport (PAT), Patna for
the first Control Period (01.04.2018 to 31.03.2023).**

24th October, 2019

भा.वि.आ.वि.प्रा.

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AERA



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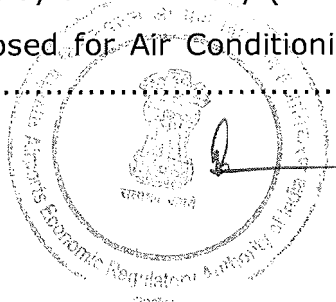


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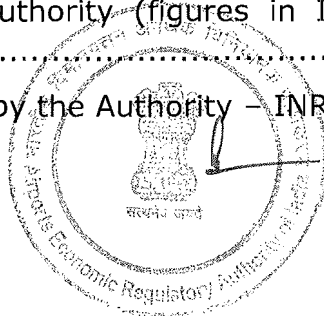


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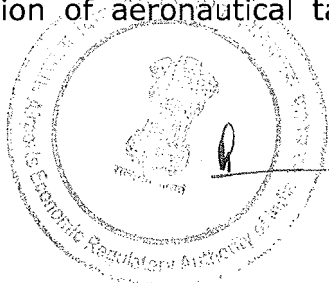
1. Introduction

- 1.1. Jay Prakash Narayan International Airport (PAT), located in the city of Patna, is the 16th busiest airport in India based on passenger traffic handled at airports in India in FY 2018-19.
- 1.2. Technical and terminal building details of Patna Airport are provided in the table below:

Table 1: Technical details and terminal building details

Particulars	Details
Total airport area	260.81 Acre
Runway orientation and length	07-25 and 2072 m
No. of taxi tracks	03
No. of apron bays	05
Operational hours	24 hours
Terminal building details (domestic plus international)	
Particulars	Details
Terminal building area	7,864 sq. meters
Arrival conveyors	02
Peak hour passenger capacity	Security Hold Area (SHA)-1200 Check in area - 300
No. of check-in counters	15
Total area of car parking	5910 sq. meters

- 1.3. In the financial year ending March 31, 2016, Patna Airport crossed annual passenger throughput of 1.5 million to become a Major Airport, as defined in Section 2(i) of Airports Economic Regulatory Authority of India (AERA, the Authority) Act. Accordingly, starting from financial year 2016-17, tariff determination of aeronautical services at the airport is to be undertaken by the Authority.
- 1.4. AAI accordingly submitted its Multi-Year Tariff Proposal dated 27.11.2018 to the Authority for determination of aeronautical tariffs for the 1st control period. Based on this MYTP, the Authority reviewed the submissions made by AAI with respect to various building blocks. The Authority visited Patna Airport and reviewed the proposal with respect to expansion of terminal to address the immediate capacity constraints as well as the proposal for a new terminal for long term capacity augmentation. The Authority noticed substantial changes required in the MYTP to suitably consider them towards determination of tariff and accordingly requested AAI to submit a revised MYTP. AAI accordingly submitted a revised MYTP on 14.03.2019.
- 1.5. Pursuant to its analysis of the revised MYTP of Patna Airport and associated information, the Authority issued its Consultation Paper No. 03/2019-20 dated 08.05.2019. The Authority proposed its views on various building blocks for determination of aeronautical tariffs for the 1st control period

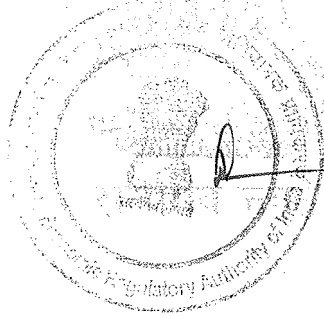


(01.04.2018 to 31.03.2023) in respect of Patna Airport and invited comments from stakeholders for the proposed tariffs.

A. Addendum to Consultation Paper No. 03/2018-19:

- 1.6. The Authority, in Para 7.2.1 of the Consultation Paper No 03/2019-20, had noted the need for a fresh Airport Users Consultative Committee (AUCC) meeting with more concrete proposals for capital expenditure and instructed AAI to hold the same. Subsequently, AAI conducted the AUCC meeting on 31st May 2019 at Patna Airport. Minutes of this AUCC meeting are uploaded on the Authority's website as Public Notice No. 07/2018-19 dated 03.07.2019.
- 1.7. Once the AUCC meeting was completed, the Authority held a Stakeholder Consultation meeting at its premises on 7th June 2019. Representatives from Airports Authority of India (AAI), Federation of Indian Airlines (FIA), and BAOA attended the meeting. The meeting comprised a presentation by the team from AAI regarding Patna Airport followed by queries from the stakeholders.
- 1.8. While presenting, AAI team mentioned its proposal for a new Airport at Bihta (about 27 kilometers from Patna Airport). Stakeholders raised concerns about this proposal given the context of capital expansion planned at the Patna Airport. Other than this, AAI team presented revised numbers for certain items like residential quarters, semi-permanent structure, among others as against those mentioned in the Consultation Paper 03/2019-20. Presentation from AAI is uploaded on the Authority's website as Public Notice No. 06/2018-19 dated 12.06.2019.
- 1.9. Further, the Authority received written comments from Federation of Indian Airlines (FIA), Business Aircraft Operators Association (BAOA) & Hindustan Petroleum Corporation Limited (HPCL). Airports Authority of India (AAI) submitted its response to some of these comments as well as submitted its own comments on the Consultation Paper No. 03/2019-20.
- 1.10. The Authority carefully read and analyzed these comments. After a thoughtful consideration of these comments followed by discussions with stakeholders, and given the new proposals and revised numbers submitted by AAI, the Authority assessed that the nature of some of these comments was material in terms of their impact on aeronautical tariffs.
- 1.11. In view of the same, the Authority decided to issue an Addendum to the Consultation Paper 03/2019-20, for inviting fresh comments from the Stakeholders. This Addendum was uploaded on Authority's website as Addendum to Consultation Paper No. 03/2019-20 dated 06.09.2019.
- 1.12. This Addendum was written with a view to present the stakeholders with new information received by the Authority since the publication of the Consultation Paper 03/2019-20 as well as to discuss the comments received from the stakeholders and Authority's position on these comments.

- 1.13. By way of this Addendum, the Authority had proposed to revise the date of implementation of the proposed tariff to 1st October, 2019.
- 1.14. The Authority had invited comments from stakeholders post publication of the above-mentioned Addendum to Consultation Paper. The Authority has received comments from FIA and HPCL. Further, the Authority received responses from AAI for some of the comments from FIA for which a response from AAI was sought.
- 1.15. This Order of the Authority takes into account the proposals of AAI, views expressed by stakeholders in the meeting, the written submissions received from the stakeholders and examination of these comments by the Authority with reference to its guidelines for airport operators.
- 1.16. By way of this Order, the Authority decides to revise the date of implementation of the proposed tariff to 1st November, 2019.



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2. Methodology for tariff determination

- 2.1. 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"), had issued guidelines to determine tariffs at major airports based on Single Till mechanism. Subsequently, the Authority has amended guidelines vide its Order No. 14, 2016-17 dated 12/01/2017 to determine the future tariffs using Hybrid Till.
- 2.2. The Authority had decided the 1st control period for the airport to be the five year period from FY 2018-19 till FY 2022-23. However considering that the airport came under the definition of a major airport by FY 2016-17, the Authority decided to include FY 2016-17 and FY 2017-18 under its regulatory ambit and accordingly consider the shortfall/surplus of these two financial years towards determination of aeronautical tariff for the 1st control period. The tariff determination process consists of determination of regulatory building blocks for the 1st control period under Hybrid Till.
- 2.3. The Aggregate Revenue Requirement (ARR) under the regulatory framework of the Authority is calculated as under:

$$ARR = \sum_{t=1}^5 ARR_t$$

$$ARR_t = (FRoR \times RAB_t) + D_t + O_t + T_t - \alpha \times NAR_t$$

Where,

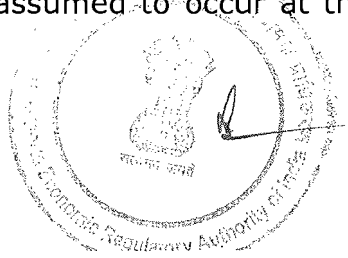
- t is the tariff year in the control period, ranging from 1 to 5
 - ARR_t is the Aggregate Revenue Requirement for tariff year t
 - FRoR is the Fair Rate of Return for the control period
 - RAB_t is the Aeronautical Regulatory Asset Base for tariff year t
 - D_t is the Depreciation corresponding to the Regulatory Asset Base for year t
 - O_t is the Aeronautical Operation and Maintenance expenditure for year t
 - T_t is the aeronautical taxation expense for the tariff year t
 - α is the cross subsidy factor for revenue from services other than aeronautical services. Under the Hybrid Till methodology followed by the Authority, $\alpha = 30\%$.
 - NAR_t is the Non-Aeronautical Revenue in tariff year t.
- 2.4. Based on ARR, Yield per passenger (Y) is calculated as per the formula given below:

$$\sum_{t=1}^5 PV(ARR_t)$$

$$\text{Yield per passenger (Y)} = \frac{\sum_{t=1}^5 PV(ARR_t)}{\sum_{t=1}^5 VEt}$$

Where,

- PV (ARR_t) is the Present Value of ARR for all the tariff years. All cash flows are assumed to occur at the end of the year. Further,



the date considered by the Authority for discounting of cash flows is one year from the start of the control period, i.e., 1st April, 2019.

- VE_t is the passenger traffic in year t.

2.5. Further, shortfall/surplus of FY 2016-17 and FY 2017-18 is adjusted for time value of money and added to the ARR as computed above. For this purpose, ARR for FY 2016-17 and FY 2017-18 is computed in a manner similar to Para 2.4. This ARR is compared with actual aeronautical revenues of the airport for these two financial years. The future value of this shortfall/surplus is added to the ARR computed for the control period.

A. Stakeholder Comments

2.6. The Authority has received certain comments from stakeholders in respect of the methodology being followed for determination of aeronautical tariff at Patna Airport. These are discussed below.

A.1. Comments from FIA

2.7. **Revenue of AAICLAS:** Revenue of AAICLAS from cargo services should be considered in tariff determination in full.

2.8. **Revenue from ANS:** Revenue from ANS services should be considered in tariff determination.

2.9. **Revenue from Ground Handling services:** FIA requests the Authority to confirm whether revenue from ground handling services is being considered under aeronautical tariffs, or not.

2.10. **Single till model:** FIA has submitted that single till model should be used for tariff determination, instead of hybrid till.

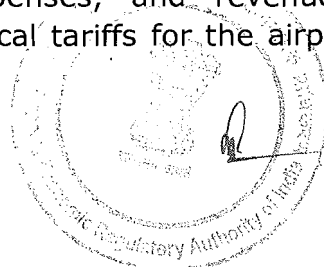
A.2. Response to FIA's comments by AAI

2.11. AAI did not respond to these comments by FIA.

A.3. Authority's evaluation of comments by FIA

2.12. **Revenue of AAICLAS:** The Authority carries out separate exercise for determination of tariff for ground handling service providers and cargo handling service providers. The Authority considers expenses, revenues, and assets pertaining to these services separately while determining tariff for these services. Under the current exercise of determination of aeronautical tariffs for the airport operations, the Authority takes into account the earnings accruing to AAI by way of revenue share and rent from these service providers.

2.13. **Revenue from ANS:** Ministry of Civil Aviation determines tariffs for ANS services under a separate exercise. Accordingly, the Authority does not take into account assets, expenses, and revenues pertaining to ANS in determination of aeronautical tariffs for the airport operations, irrespective



of the fact that the entity carrying out the ANS operations is the same as the airport operator.

- 2.14. **Revenue from Ground Handling services:** The Authority considers the earnings accruing to AAI from ground handling operations (lease rental and revenue share) under aeronautical revenues.
- 2.15. **Single Till model:** The Authority has noted the comments from FIA regarding the regulatory Till applicable for the airport. The Authority has decided to adopt Hybrid Till as per the revised guidelines issued vide its Order No. 14, 2016-17 dated 12.01.2017.
- 2.16. The Authority has provided detailed reasoning and adequately responded to the stakeholders' comments on the adoption of Hybrid Till in its Order No. 14, 2016-17 and passed the following order:

"(i) The Authority will in future determine the tariffs of major airports under "Hybrid Till" wherein 30% of non-aeronautical revenues will be used to cross-subsidize aeronautical charges. Accordingly, to that extent the airport operator guideline of the Authority shall be amended. The provisions of the Guidelines issued by the Authority, other than regulatory Till, shall remain the same.

"(ii) In case of Delhi and Mumbai airports, tariff will continue to be determined as per the SSA entered into between Government of India and the respective airport operators at Delhi and Mumbai."

In view of above, the Authority decides to determine aeronautical tariffs at Patna Airport for the first control period on Hybrid Till basis.



3. Multi-Year Tariff Proposal of Patna Airport

- 3.1. AAI made submissions dated 27/11/2018 to the Authority for determination of tariffs for the 1st control period (01/04/18 to 31/03/23) on the basis of Hybrid Till. As discussed in Para 1.4 above, AAI further revised the MYTP with submissions dated 14/03/2019.
- 3.2. AAI provides Air Navigation Services (ANS) in addition to landing, parking and other aeronautical services at Patna Airport. AAI has submitted that the tariff proposal does not consider revenues, expenditure and assets pertaining to ANS. AAI has further submitted that all cargo operations have been transferred to AAI Cargo Logistics and Allied Services (AAICLAS), its wholly owned subsidiary and the tariff proposal does not consider revenues, expenditure and assets pertaining to cargo operations. This Order discusses the determination of tariffs for aeronautical services at the airport excluding these two services.
- 3.3. AAI has informed that accounts of AAI are audited by C&AG of India as mandated by the AAI Act. The C&AG's resident audit party audits the financial records and statements of AAI airports, regional and field offices. However, the C&AG issues the final audit certificate for the AAI as a whole and only trial balance is available for Patna Airport. The Authority has utilized these documents as submitted by AAI for determination of tariffs.



4. Traffic forecast

A. AAI's initial submissions

4.1. The historical traffic at the airport has been shown in the table below.

Table 2: Historical passenger and ATM traffic at Patna Airport

Year	Domestic passengers	International passengers	Domestic ATM	International ATM
2006-07	3,11,171	-	4,970	20
2007-08	3,87,303	-	5,858	16
2008-09	3,44,446	-	5,220	8
2009-10	5,52,440	-	7,456	10
2010-11	8,38,509	-	9,541	8
2011-12	10,21,544	-	10,356	6
2012-13	10,03,169	-	9,956	13
2013-14	10,45,237	-	9,900	16
2014-15	11,96,540	-	11,054	16
2015-16	15,84,013	-	13,944	6
2016-17	21,12,150	-	15,508	3
2017-18	31,11,273	-	21,916	-
Past 10 years CAGR	23.2%	NA	14.1%	NA
Past 5 years CAGR	25.4%	NA	17.1%	NA

4.2. The traffic growth rates as submitted by AAI for the 1st control period are as follows:

Table 3: Traffic growth rates proposed by AAI as per initial submission

Year	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
Growth rates						
2018-19	15%	NA	15%	13%	NA	13%
2019-20	15%	NA	15%	13%	NA	13%
2020-21	15%	NA	15%	13%	NA	13%
2021-22	15%	NA	15%	13%	NA	13%
2022-23	15%	NA	15%	13%	NA	13%
Traffic						
2018-19	35,77,964	-	35,77,964	24,765	-	24,765
2019-20	41,14,659	-	41,14,659	27,984	-	27,984
2020-21	47,31,858	-	47,31,858	31,622	-	31,622

Year	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
2021-22	54,41,637	-	54,41,637	35,733	-	35,733
2022-23	62,57,883	-	62,57,883	40,378	-	40,378

4.3. AAI submitted that the passenger traffic and aircraft movement projections are based on past trends, econometric and regression analysis, and various economic factors including policy framework.

B. Authority's Examination at Consultation stage:

4.4. The Authority had duly examined the submissions from AAI. As part of its examination of AAI's forecast of traffic at Patna Airport, the Authority calculated Compounded Annual Growth Rate, or CAGR, for passenger traffic and ATM from FY 2007-08 to FY 2017-18 (10 year CAGR), FY 2012-13 to FY 2017-18 (5 year CAGR), and FY 2014-15 to 2017-18 (3 year CAGR).

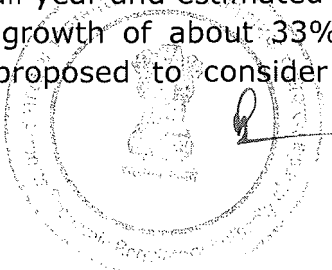
4.5. The details have been provided in the table below:

Table 4: CAGR as per AAI's submission

Particulars	10 year CAGR	5 year CAGR	3 year CAGR
Passengers:			
Domestic	23.2%	25.4%	37.5%
International	NA	NA	NA
ATM:			
Domestic	14.1%	17.1%	25.6%
International	NA	NA	NA
After considering actuals of FY 2018-19*:			
Domestic passengers	28.3%	31.8%	37.9%
Domestic ATM	18.8%	24.1%	27.9%
*Based on actuals up to Dec 2018 and linear extrapolation			

4.6. The Authority noted the spurt in traffic in the recent past, which caused CAGR for 5 year period to be higher than that for 10 year period. The Authority also noted that existing traffic at Patna Airport (3.1 million for FY 2017-18) far exceeds its terminal capacity (at 0.7 million) and to that extent, the future growth may not follow the high growth trend of recent past till capacity expansion is undertaken by Patna Airport.

4.7. At the Consultation stage, the Authority had reference to the actual traffic from April 2018 to December 2018, which was 3.1 million passengers. For the purpose of arriving at base traffic in FY 2018-19, the Authority extrapolated the same to full year and estimated the passenger traffic to be 4.1 million passengers, a growth of about 33% from the previous year. Therefore, the Authority proposed to consider passenger traffic at 4.1

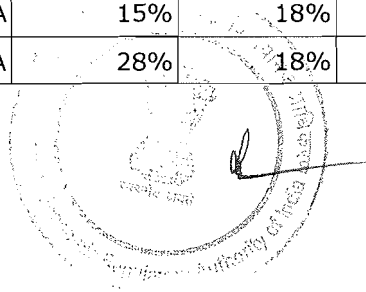


million for FY 2018-19. The Authority also proposed corresponding ATM projections based on similar methodology. This was computed at 29,148 domestic aircraft movements.

- 4.8. As regards the growth rates for subsequent years in the 1st control period, the Authority had reference to existing capacity constraints and capacity augmentation measures proposed by AAI. The Authority noted the extreme capacity constraint being experienced by Patna Airport currently i.e. handling around 7-8 times more traffic than its capacity. Under normal circumstances, the Authority relies on the 10-year CAGR of passenger traffic as a reasonable basis for expected growth at an airport during the control period. Given the likely service levels prevailing under such capacity constraint at Patna Airport, the Authority was of the view that Patna Airport will not be able to sustain its current growth trend. AAI, during discussions with the Authority, presented its capacity augmentation measures. These were at both immediate and medium term levels. Immediate measure was to convert an existing portion of the airport into a passenger handling area with check-in counters on a temporary basis. The medium term measure was to expand the terminal and add more capacity, which is projected to be over in FY 2022-23, i.e. the last year of the 1st control period. The Authority formed a view that the growth experienced at Patna Airport will not be sustainable and at best, the 10-year CAGR may be considered for the immediate next year. Growth rate for subsequent years will need to be tapered until capacity addition is completed. Having reference to these and having already extrapolated the traffic number for FY 2018-19, the Authority had proposed to consider passenger traffic growth rates of 28% (based on 10-year CAGR) for the 2nd year of the control period (i.e. FY 2019-20), 15% for FY 2020-21 and FY 2021-22, and 28% in the last year, i.e. FY 2022-23.
- 4.9. With respect to ATM (2nd year of the control period and onwards), the Authority proposed the growth rates in line with revised 10-year CAGR, i.e. 18%.
- 4.10. The traffic growth rates and the corresponding traffic for passengers and ATM as proposed by the Authority in Consultation Paper for the 1st control period have been given in the table below.

Table 5: Traffic forecast as considered by the Authority (consultation stage)

Year	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
Growth rates						
2018-19	33%	NA	33%	33%	NA	33%
2019-20	28%	NA	28%	18%	NA	18%
2020-21	15%	NA	15%	18%	NA	18%
2021-22	15%	NA	15%	18%	NA	18%
2022-23	28%	NA	28%	18%	NA	18%



Year	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
Traffic						
2018-19	4,137,993	-	4,137,993	29,148	-	29,148
2019-20	5,296,631	-	5,296,631	34,395	-	34,395
2020-21	6,091,126	-	6,091,126	40,586	-	40,586
2021-22	7,004,795	-	7,004,795	47,891	-	47,891
2022-23	8,966,138	-	8,966,138	56,511	-	56,511

4.11. The Authority proposed to true-up the traffic as per actual growth achieved during the 1st control period at the time of determination of tariff for the 2nd control period.

C. Addendum to Consultation Paper

4.12. Regarding traffic forecast, the Authority received comments from FIA. The issues raised by FIA were concerned with the proposed airport in Bihta, and its impact on traffic projections at Patna Airport. FIA also commented on some data related issues in AAI's presentation during the Stakeholders Consultation meeting held at the Authority's premises on 07.06.2019. AAI responded to the issues raised by FIA. The Authority carefully read the comments raised by FIA, and AAI's responses to these. The comments raised by FIA, AAI's responses to these, Authority's examination of these comments and the impact on tariff determination have been discussed in the paragraphs below.

C.1. Comments from FIA

4.13. Regarding Bihta airport:

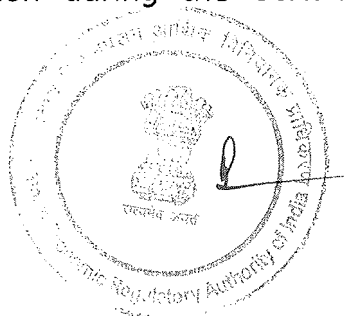
FIA requested AAI to provide the reasoning behind requirement of a new terminal building at Patna Airport when a new airport is being planned in Bihta, which is close to the existing Patna Airport. Alternatively, there may be an impact of Bihta Airport on traffic projections of Patna Airport.

4.14. Contradiction in traffic projection:

The traffic projections are proposed to decrease from 28% to 15% in the middle of the control period. However, AAI has proposed to construct a parallel runway as well. The two seem contradictory to each other. AAI was requested to clarify the same.

4.15. Existing terminal capacity:

Existing Terminal Capacity is stated as 0.7 mppa in AAI's presentation, as compared to 0.5 mppa in the Consultation Paper. Reference may be made to Page 16 of AAI's Presentation during the Stakeholder Consultation meeting on 07th June 2019.



4.16. Trend and projections (passenger and ATM traffic)

Trends and Projections (Passenger and ATM Traffic) in AAI's presentation are different from Traffic Forecast in the Consultation Paper. Reference may be made to Page 24-25 of AAI's Presentation during the Stakeholder Consultation meeting on 07th June 2019.

C.2. Response to FIA's comments by AAI

4.17. Regarding Bihta airport:

Existing building at Patna Airport has a passenger capacity of 0.7 MPPA. Patna Airport witnessed passenger growth of 30.60 % from the year FY 2017-18 to FY 2018-19 and handled 4.06 million passengers in FY 2018-19. CAGR for last 10 years has been 28%.

Considering the rapid growth of passenger traffic and huge congestion at the existing airport, a new terminal building at Patna has been planned with a handling capacity of 8 MPPA with all modern amenities. As 8 MPPA is likely to saturate by FY 2022-23 as per traffic forecast, a new civil enclave with a capacity of 5 MPPA is also proposed at Bihta to cater to traffic demand beyond FY 2022- 23.

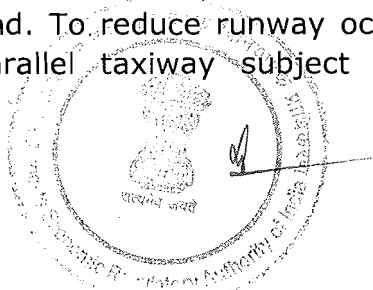
The existing runway at Patna Airport cannot be extended as it is land-locked from all sides. Therefore, aircraft are operating with load penalties due to displaced threshold and inadequate runway length (6800 ft.). With a runway length of 8500 ft. at Bihta, the existing operating aircraft would be able to operate without load penalty. AAI is also pursuing with State Government to provide land for runway extension for category 'E' type of aircraft.

The rapid growth in passenger traffic in the coming years would cross 8.0 MPPA by FY 2022-23. Bihta Airport would be operational only by the end of FY 2022-23. Alone, it will not be able to handle the growing traffic of Patna. Therefore, Bihta Airport shall be supplementing the capacity of Patna Airport and it is not expected to be a replacement for Patna Airport.

Further, Bihta is an Indian Air Force (IAF) airport, and a request was placed before the State Government of Bihar for providing 108 acres of land so that a Joint User Airport Terminal can be developed at Bihta. For this, IAF had also agreed 'in-principle' and the proposed capacity of the Terminal Building at Bihta planned in Phase-1 is 5 MPPA. In this regard, land for Bihta Airport is handed over to AAI on 06/12/2018 and AAI has already taken action for taking up the work of Development of Civil Air Terminal at Bihta Airport and construction is targeted for completion by the year 2022 so that eventually Patna Airport and Bihta Airport shall together cater to the growing traffic demand of Patna after 2022.

4.18. Contradiction in traffic projection:

There is no such proposal to construct a parallel runway at Patna Airport due to non-availability of Land. To reduce runway occupancy time, AAI is planning to construct a parallel taxiway subject to handing over of



additional land by the State Government. At this stage proposal for construction of parallel taxiway has not been considered for capital expenditure projections for tariff determination of the first control period. So there will be an airside constraint and limit on aircraft movement.

4.19. Existing terminal capacity:

It is confirmed that the capacity of the existing terminal building is 0.7 million passengers per annum.

4.20. Trend and projections (passenger and ATM traffic)

In the Consultation Paper, actual traffic data was considered up to Dec-2018. In the presentation given during the Stakeholders Meeting on 07th June, 2019, actual traffic data was considered up to Mar-2019.

C.3. Authority's evaluation of comments by FIA and AAI's responses

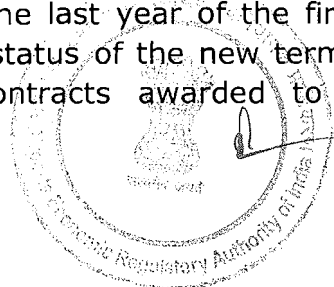
4.21. The Authority had carefully analyzed the submissions from FIA and AAI and presented its views, as below:

4.22. Regarding Bihta airport:

The Authority in its Consultation Paper 03/2019-20 had mentioned about the severe congestion being experienced by the passengers at Patna Airport currently and in view of the same had examined the proposed capital expansion at Patna Airport. The Authority understands that while there is a capital expansion planned at the airport, there are issues related to restrictions of land surrounding Patna Airport, which results in the airport's inability to expand further. Proposed expansion will increase the capacity of the new terminal building to 8 MPPA and going by the current traffic projections, it is expected to be saturated by FY 2022-23 (with a projected traffic of 8.8 MPPA). The Authority had already noted the delay in planning of this expansion in its Consultation Paper 03/2019-20 (refer para 7.2.3.6). Given the constraints around Patna Airport and demand projections, the Authority had noted AAI's plans for a new Airport at Bihta for handling traffic beyond 8 MPPA.

The Authority noted that Bihta is an existing Air Force Base operated by IAF and only 27 kilometers away from Patna Airport. IAF has agreed for joint use of the airport with AAI. AAI had submitted that commencement of commercial operations at Bihta Airport would require development of Civil Air Terminal at the site for handling civil operations from Bihta Airport. AAI had submitted to the Authority a detailed scope of work for this development. AAI had further submitted that this airport is targeted to be made operational from FY 2022-23. This planned commencement coincides with the last year of the current control period for Patna Airport, as well as with operationalization of the new terminal building at Patna Airport.

The Authority examined AAI's submissions from the point of view of impact on traffic at Patna Airport in the last year of the first control period. The Authority also considered the status of the new terminal building at Patna Airport by examining the contracts awarded to various vendors for



development of the same, and the timelines mentioned therein. From these documents, the Authority is of the view that the proposed capital expansion at Patna Airport is likely to be completed by FY 2022-23, i.e., the last year of the current control period.

However, regarding the development of Civil Air Terminal/Civil Enclave at Bihta Airport, the Authority understands that only the planning activities and overall scope of work have been finalized. Contracts for different facilities are yet to be awarded. Therefore, for the development of new facility at Bihta, the Authority is of the view that the facility may not be operationalized by FY 2022-23 for commercial operations.

Moreover, the Authority will take further view on this only after receipt of complete plans on Bihta Airport and after conduct of AUCC meeting.

The Authority further noted that it has not received any plans from AAI on how the traffic will be segregated between Patna Airport and Bihta Airport. Upon receipt of such plans, the Authority will be in a position to estimate the likely impact on traffic projections at Patna Airport in the next control period. Therefore, the Authority will look into the matter in the next control period.

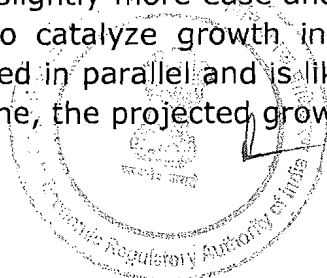
The Authority further notes that in case the commercial operations at Bihta Airport get commenced by FY 2022-23, and the traffic gets segregated leading to a lower than projected traffic at Patna Airport, the same will be duly captured during the true-up exercise for tariff determination during the next Control Period and for determination of tariff for Bihta Airport on commencement of its operation, in case it falls under the regulatory ambit of the Authority.

On balance, the Authority proposed not to consider any impact of Bihta Airport on traffic projections for Patna Airport in the first control period.

4.23. Contradiction in traffic projections:

The Authority finds that AAI intends to address the issue of extant severe congestion and projected growth in demand through three different capital works. First, a semi-permanent temporary structure to ease the severe congestion being experienced currently by the travelers. Second, construction of a new passenger terminal at Patna to address the growing demand in the catchment. Third, additional capital investment at Bihta Airport towards development of a new Civil Air Terminal to provide for long term capacity expansion, as the proposed expansion at Patna Airport is restricted by availability of land and is likely to get saturated in the near future.

The Authority notes the urgent need for the semi-permanent structure to ease the severe congestion at the Airport as well as to just sustain the current level of traffic with slightly more ease and comfort. It is not really a capacity expansion drive to catalyze growth in traffic. As stated above, capacity expansion is planned in parallel and is likely to be completed by FY 2022-23. In view of the same, the projected growth of 15% in the third and



fourth years of the current Control Period is considered as reasonable. The Authority has already captured the actual growth in the first year and retained the projection of 28% for the second year as well as reverted to this growth rate in the fifth year, when the capacity expansion work is proposed to be completed.

4.24. Existing terminal capacity:

The Authority noted the comment from FIA and the subsequent response by AAI.

4.25. Trend and projections (passenger and ATM traffic)

Regarding passenger and ATM traffic projections, the Authority had considered actual traffic for the period April 2018 to December 2018. The Authority further extrapolated the above nine-month actual traffic up to March 2019, to compute projections for FY 2018-19 due to unavailability of actual traffic numbers for the period January 2019 to March 2019 at that time. Now that the actual data became available, the Authority proposed to consider the same for traffic projections.

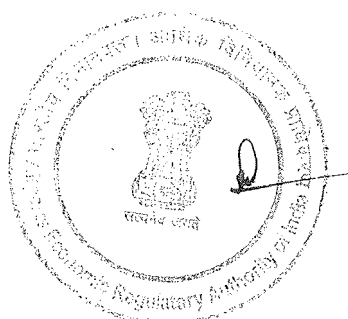
C.4. Authority's revised proposal in Addendum to Consultation Paper

4.26. The Authority had reference to actual passenger traffic at Patna Airport for FY 2018-19, which was 4,061,990 and slightly less than the extrapolated figure considered by the Authority at the Consultation stage. The Authority adopted the actual figure available for FY 2018-19 at the Addendum stage.

4.27. As discussed in the above paragraphs of this chapter, the Authority had proposed to revise traffic projections. These have been provided in the table below.

Table 6: Traffic projections as per Authority in Addendum to Consultation Paper

Year	Passenger			ATM		
	Domestic	International	Combined	Domestic	International	Combined
Growth rates						
2018-19	31%	NA	31%	28%	NA	28%
2019-20	28%	NA	28%	18%	NA	18%
2020-21	15%	NA	15%	18%	NA	18%
2021-22	15%	NA	15%	18%	NA	18%
2022-23	28%	NA	28%	18%	NA	18%
Traffic						
2018-19	4,061,990	-	4,061,990	28,087	-	28,087
2019-20	5,199,347	-	5,199,347	33,143	-	33,143
2020-21	5,979,249	-	5,979,249	39,109	-	39,109
2021-22	6,876,136	-	6,876,136	46,149	-	46,149
2022-23	8,801,454	-	8,801,454	54,456	-	54,456



D. Stakeholder comments on Addendum to Consultation Paper

D.1. Comments from FIA

4.28. Regarding growth rate of traffic:

Authority should consider 5-year CAGR of 31.2% consistently, instead of the current projections. 5-year makes more sense because of significant changes in aviation industry in the past 5 years. Authority should commission independent study for traffic projections. If Authority is unable to commission an independent study, then because of semi-permanent terminal building, the Authority should consider the 10-year CAGR of 28% for all years.

4.29. Regarding Bihta Airport:

Documentation regarding Bihta Airport should be provided to FIA. AAI is requested to provide any policy document or factors/considerations for developing dual or multiple airports in the same city or nearby vicinities.

D.2. Response to FIA's comments by AAI

4.30. Regarding growth rate of traffic:

AAI did not respond to this observation by FIA.

4.31. Regarding Bihta Airport:

Passenger traffic has been growing at a rapid pace. It is expected to touch 8.3 mppa by FY 2022-23. Considering growth projected by the Authority, existing Patna Airport alone would not be able to handle the growing traffic of the city of Patna. Therefore, Bihta Airport shall be supplementing the capacity of Patna Airport and it cannot be a replacement for Patna Airport.

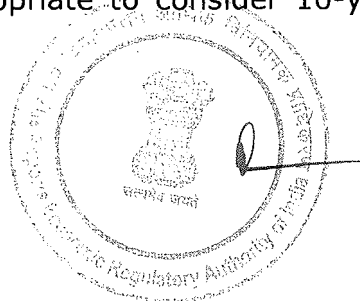
D.3. Authority's evaluation of comments by FIA and AAI's responses

4.32. Regarding growth rate of traffic:

The Authority has carefully examined the comments from FIA regarding traffic projections.

FIA has suggested that the Authority should consider the 5-year CAGR of 31.2% for domestic passenger growth projections instead of the 10-year CAGR of 28%. The Authority has already provided the reasoning behind the use of 10-year CAGR of 28%.

Further, the Authority also notes that existing traffic at Patna Airport far exceeds its current terminal capacity, and to that extent, the future growth may not follow the high growth trend of recent past. Therefore, the Authority finds it appropriate to consider 10-year CAGR instead of the 5-year CAGR.



The Authority has also provided its reasoning for tapering the growth rate from 28% to 15% for two years during 1st control period and coming back to 28% in the last year upon commencement of new terminal building.

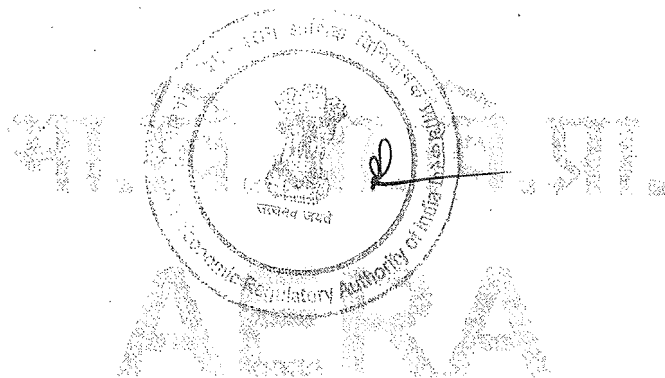
With this context, the Authority does not see a need to conduct an independent study for traffic projections.

4.33. Regarding Bihta Airport:

AAI has not provided a policy document of a list of factors for developing multiple airports in a city and detailed plans for Bihta Airport are not available at this stage with the Authority. The Authority will take further view on Bihta only after receipt of complete plans on Bihta Airport and after conduct of AUCC meeting.

Decision No. 1. Regarding traffic forecast

- (i) The Authority decides to consider traffic projections as per Table 6.
- (ii) The Authority decides to true-up the traffic volume (ATM and passengers) on the basis of actual traffic in 1st Control Period while determining tariffs for the 2nd Control Period.



5. Allocation of assets between aeronautical and non-aeronautical

A. AAI's initial submissions

5.1. Under Hybrid Till, only aeronautical assets are included as part of the Regulatory Asset Base (RAB). Therefore, all airport assets need to be segregated between aeronautical and non-aeronautical. Further, projections of capitalizations during the control period with regard to only aeronautical assets need to be considered as part of RAB.

5.2. For the purposes of this segregation, AAI has divided its assets into three components – aeronautical, non-aeronautical and common. Common components have been further segregated into aeronautical and non-aeronautical assets by applying one of the following ratios:

5.2.1. **Terminal Area Ratio:** This is a ratio of aeronautical area to non-aeronautical area and is applied for all terminal related common assets.

5.2.2. **Employee Ratio:** This is a ratio of number of staff providing non-aeronautical services (i.e. commercial and land management) to number of staff providing aeronautical services, excluding ANS and cargo.

5.2.3. **Quarter ratio:** This is a ratio based on number of non-aeronautical staff to aeronautical staff residing at the residential quarters at the airport. It is applied to assets pertaining to such residential quarters.

5.3. The table below provides the details of these ratios used for allocation.

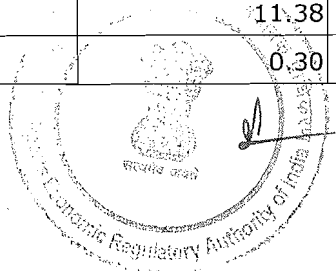
Table 7: Ratios used by AAI for allocation of assets into aeronautical and non-aeronautical

Particulars	Ratio (FY 2015-16)
Terminal Area Ratio	14.08%
Employee Ratio	3:98
Quarter ratio	0 (no non-aeronautical employees using residential quarters)

5.4. The allocation of gross block of assets as on 01/04/2016 between aeronautical and non-aeronautical services as submitted by AAI is given in the table below:

Table 8: Allocation of gross block of assets between aeronautical and non-aeronautical as per AAI

S. No.	Asset category	Total assets (INR Crores)	Aero assets (INR Crores)	% Aero
1.	Leasehold Land	0.38	0.38	100.0%
2.	Runways, Aprons and Taxiways	3.78	3.78	100.0%
3.	Road, Bridges & Culverts	14.36	14.36	100.0%
4.	Building – Terminal	11.38	9.30	81.7%
5.	Building – Temporary	0.30	0.30	100.0%



S. No.	Asset category	Total assets (INR Crores)	Aero assets (INR Crores)	% Aero
6.	Building- Residential	4.56	4.56	100.0%
7.	Boundary Wall – Operational	3.97	3.97	100.0%
8.	Boundary Wall – Residential	0.33	0.33	100.0%
9.	Computer - End user	0.35	0.34	98.1%
10.	Computer - Servers and networks	0.52	0.52	100.0%
11.	Intangible Assets – Software	0.40	0.40	99.9%
12.	Plant & Machinery	12.54	12.54	100.0%
13.	Tools & Equipment	0.73	0.73	100.0%
14.	Furniture & Fixtures: Other Than Trolley	1.43	1.43	100.0%
15.	Furniture & Fixtures: Trolley	0.41	0.41	100.0%
16.	Vehicles	1.04	1.04	99.8%
17.	Electrical Installations	16.32	15.45	94.6%
18.	Other Office Equipment	0.70	0.70	100.0%
19.	X Ray Baggage System	3.86	3.86	100.0%
20.	CFT/Fire Fighting Equipment	11.54	11.54	100.0%
	Total	88.93	85.96	96.7%

B. Authority's Examination at Consultation Paper stage:

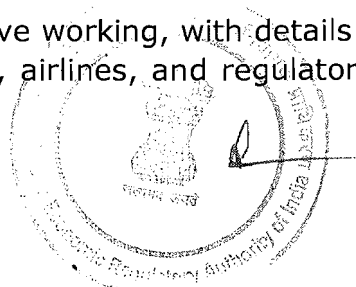
5.5. AAI submitted the workings for the calculation of the terminal area ratio, i.e., ratio of non-aeronautical portion to the aeronautical portion of the terminal building. This has been presented in the table below.

Table 9: Terminal Area Ratio

S. No.	Category	Area (Sq. meters)
1	Commercial Entities- Restaurant / Snack Bars	739.33
2	Commercial Entities- T.R. Stall	126.75
3	Regulatory & allied agencies	84.60
4	Airlines	258.50
	Total non-aeronautical area (1)	1209.18
	Total area of terminal (2)	8589.00
	Terminal area ratio (1/2)	14.08%

5.6. The Authority observed that 1,570 sq. ft. or 146 sq. mt. of area was used for advertising purposes. However, this area does not occupy any floor space and has therefore, not been considered while calculating Terminal Area Ratio.

5.7. The Authority verified the above working, with details of exact area given to various entities – commercial, airlines, and regulatory and allied agencies.

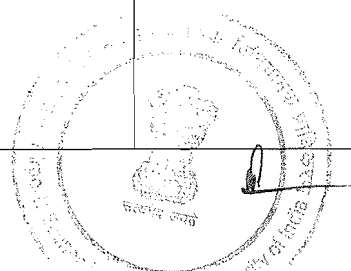


The Authority proposed to consider the terminal area ratio as proposed by AAI.

- 5.8. The Authority observed that no staff providing non-aeronautical services reside at the residential quarters at the airport. Therefore, the quarter ratio is considered to be '0' (zero).
- 5.9. The Authority verified the workings provided by AAI for employee ratio. On the basis of its verification, the Authority proposed to consider the ratio as proposed by AAI.
- 5.10. The Authority observed the use of various ratios for segregation of common assets into aeronautical and non-aeronautical. These are explained in the table below.

Table 10: Allocation of common assets as per Authority

S. No.	Asset category	Common Assets (INR cr.)	Aero Assets	Ratio used for allocation of common assets	Remarks
1.	Building - Terminal	2.03	1.74	Terminal Area Ratio- 14.08%	All common assets of INR 2.03 crore have been appropriately allocated as per the Terminal area ratio.
2.	Building - Residential	0.03	0.03	Quarter ratio- '0'	No non-aeronautical employees use the quarters. Therefore, 100% of the common assets have been allocated to aeronautical assets.
3.	Intangible Assets Software	0.0112	0.0108	Employee Ratio- 3:98	These assets pertain to software used by the employees. Therefore, these are allocated on the basis of Employee Ratio.
4.	Electrical Installations	3.55	3.06	Terminal Area Ratio- 14.08% Employee Ratio- 3:98	Out of total common assets of INR 3.55 crore, 99.75% pertain to electrical installations in the terminal area. Therefore, they have been appropriately allocated on the basis of terminal area ratio. AAI allocated the balance assets as 100% aeronautical. However, because these assets are used commonly by all employees, the Authority proposed to allocate these on the basis of Employee Ratio.



S. No.	Asset category	Common Assets (INR cr.)	Aero Assets	Ratio used for allocation of common assets	Remarks
5.	Other Office Equipment	0.07	0.06	Employee Ratio: 3:98	AAI proposed an allocation of 100% aeronautical for these assets. However, because these assets pertain to office equipment used by the employees, the Authority proposed to allocate these on the basis of Employee Ratio.

5.11. The Authority observed that Furniture and fixtures: Other than Trolley, have been allocated as 100% aeronautical. However, these assets pertain to both aeronautical as well as non-aeronautical operations. The Authority proposed allocating asset worth INR 0.02 crores pertaining to office chairs on the basis of Employee Ratio of 3:98 and INR 0.34 crores pertaining to interior decoration with respect to airport on the basis of Terminal Area ratio of 14.08%.

5.12. The Authority observed that majority portion of Electrical Installations have been allocated as purely aeronautical asset. The Authority proposed allocating INR 1.86 crores pertaining to electrical installations and replacements in the airport terminal on the basis of Terminal Area ratio of 14.08%.

5.13. The Authority observed that Other Office Equipment has been allocated as 100% aeronautical and proposed allocating, assets worth INR 0.12 crore pertaining to office equipment needed by the employees on the basis of Employee Ratio of 3:98.

5.14. On the basis of its observations, the Authority proposed the allocation of gross block of assets in accordance with the table below.

Table 11: Allocation of assets proposed by the Authority (gross block) (consultation stage)

S. No.	Asset category	Total assets (INR Crores)	Aero assets (INR Crores)	% Aero
1.	Leasehold Land	0.00	0.00	0.0%
2.	Runways, Aprons and Taxiways	3.78	3.78	100.0%
3.	Road, Bridges & Culverts	14.36	14.36	100.0%
4.	Building – Terminal	11.38	9.30	81.7%
5.	Building – Temporary	0.30	0.30	100.0%
6.	Building- Residential	4.56	4.56	100.0%
7.	Boundary Wall – Operational	3.97	3.97	100.0%
8.	Boundary Wall – Residential	0.33	0.33	100.0%
9.	Computer - End user	0.35	0.34	98.1%

S. No.	Asset category	Total assets (INR Crores)	Aero assets (INR Crores)	% Aero
10.	Computer - Servers and networks	0.52	0.52	100.0%
11.	Intangible Assets – Software	0.40	0.40	99.9%
12.	Plant & Machinery	12.54	12.54	100.0%
13.	Tools & Equipment	0.73	0.73	100.0%
14.	Furniture & Fixtures: Other Than Trolley	1.43	1.38	96.6%
15.	Furniture & Fixtures: Trolley	0.41	0.41	100.0%
16.	Vehicles	1.04	1.04	99.8%
17.	Electrical Installations	16.03	14.88	92.8%
18.	Other Office Equipment	0.62	0.61	99.3%
19.	X Ray Baggage System	3.86	3.86	100.0%
20.	CFT/Fire Fighting Equipment	11.54	11.54	100.0%
	Total	88.16	84.87	96.3%

C. Stakeholder Comments

C.1. Comments from FIA

5.15. FIA has requested for an independent study for allocation of assets between aeronautical and non-aeronautical. FIA has further submitted that in case an independent study cannot be conducted for the same, the Authority should allocate the new terminal building on the basis of existing terminal building ratio.

C.2. Response to FIA's comments by AAI

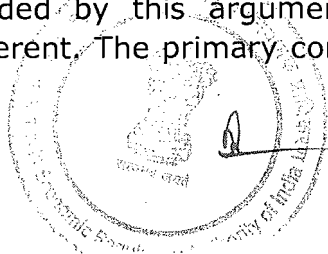
5.16. AAI did not respond to FIA's comment.

C.3. Authority's evaluation of comments by FIA and AAI's responses

5.17. The Authority has carefully examined the comments from FIA regarding allocation of assets between aeronautical and non-aeronautical. FIA has suggested that an independent study be conducted for the same.

5.18. The Authority is of the view that an independent study on allocations of assets may be conducted depending upon the size, scale, complexity, and multiple ownerships of overall assets to ascertain the aeronautical portion. The Authority exercised its own diligence and sought necessary clarifications from AAI to form its view on the admissible part of the overall assets towards RAB. For the current Control Period, the Authority is not persuaded to conduct an independent study.

5.19. FIA has further suggested that in case an independent study could not be commissioned, the Authority should consider allocation of new terminal building on the basis of existing terminal building ratio. However, the Authority is not persuaded by this argument. The economics of each terminal building are different. The primary consideration to determine this



ratio remains the actual plans of the airport operator to use the terminal for various non-aeronautical activities. As per these plans, 10.97% is allocated towards non-aeronautical activities by AAI. The Authority would have considered the argument provided by FIA in case the planned ratio would have been less than what is usually seen at other similar airports. Considering the usual use of terminal building at other AAI airports, 10.97% seems to be a good enough area planned for non-aeronautical activities.

5.20. The Authority decides to keep the terminal area ratio at 10.97% for the new terminal building.

C.4. Authority's final evaluation

5.21. The final allocation of assets considered by the Authority has been shown in Table 11.

Decision No. 2. Regarding allocation of assets

- (i) The Authority decides the allocation of gross block of assets as on 1st April 2016 between aeronautical and non-aeronautical assets as detailed in Table 11.



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6. Initial Regulatory Asset Base

A. AAI's initial submissions

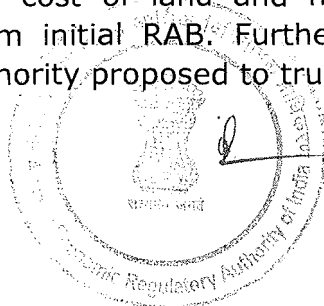
6.1. As per AAI's submission, the Initial RAB as on 31/03/16 amounted to INR 15.85 crores. AAI submitted the following working for the computation of initial RAB.

Table 12: Initial RAB as per AAI's submission (figures in INR crores)

Asset category	Opening gross block	Accumulated depreciation	Opening net block
Leasehold Land	0.38	-	0.38
Runways, Aprons and Taxiways	3.78	3.31	0.47
Road, Bridges & Culverts	14.36	12.94	1.43
Building - Terminal	9.30	8.00	1.30
Building - Temporary	0.30	0.30	0.00
Building- Residential	4.56	1.71	2.86
Boundary Wall - Operational	3.97	2.42	1.55
Boundary Wall - Residential	0.33	0.13	0.21
Computer - End user	0.34	0.27	0.07
Computer - Servers and networks	0.52	0.52	0.00
Intangible Assets - Software	0.40	0.39	0.01
Plant & Machinery	12.54	11.80	0.74
Tools & Equipment	0.73	0.69	0.05
Furniture & Fixtures: Other Than Trolley	1.43	1.33	0.10
Furniture & Fixtures: Trolley	0.41	0.38	0.03
Vehicles	1.04	0.86	0.18
Electrical Installations	15.45	11.31	4.14
Other Office Equipment	0.70	0.42	0.28
X Ray Baggage System	3.86	3.68	0.18
CFT/Fire Fighting Equipment	11.54	9.67	1.87
Total	85.96	70.11	15.85

B. Authority's examination at Consultation Stage

6.2. The Authority observed that Leasehold Land was included in RAB. However, the Authority is undertaking a separate study to analyse the appropriate treatment of the cost of land and meanwhile, proposed to exclude the cost of land from initial RAB. Further, on the basis of the outcome of the study, the Authority proposed to true-up the RAB during the 2nd control period.



6.3. The Authority observed that there are assets under the category 'Electrical Installations' amounting to INR 0.3 crore and one asset under the category 'Other Office Equipment' amounting to INR 0.05 crore, which pertain to ANS operations. The Authority proposed to remove the same from RAB.

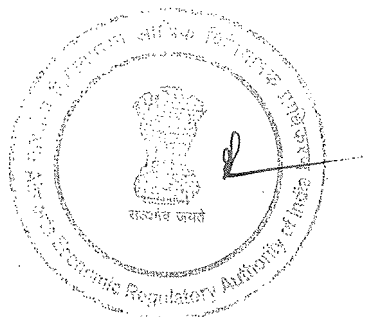
6.4. The revised Initial RAB after the above changes has been presented below.

Table 13: Initial RAB as proposed by Authority – Consultation stage (figures in INR crores)

Asset category	Opening gross block	Accumulated depreciation	Opening net block
Leasehold Land	-	-	-
Runways, Aprons and Taxiways	3.78	3.31	0.47
Road, Bridges & Culverts	14.36	12.94	1.43
Building – Terminal	9.30	8.00	1.30
Building – Temporary	0.30	0.30	0.00
Building- Residential	4.56	1.71	2.86
Boundary Wall – Operational	3.97	2.42	1.55
Boundary Wall – Residential	0.33	0.13	0.21
Computer - End user	0.34	0.27	0.07
Computer - Servers and networks	0.52	0.52	0.00
Intangible Assets – Software	0.40	0.39	0.01
Plant & Machinery	12.54	11.80	0.74
Tools & Equipment	0.73	0.69	0.05
Furniture & Fixtures: Other Than Trolley	1.38	1.28	0.10
Furniture & Fixtures: Trolley	0.41	0.38	0.03
Vehicles	1.04	0.86	0.18
Electrical Installations	14.89	10.81	4.07
Other Office Equipment	0.61	0.37	0.24
X Ray Baggage System	3.86	3.68	0.18
CFT/Fire Fighting Equipment	11.54	9.67	1.87
Total	84.88	69.51	15.36

C. Stakeholder Comments

6.5. No comments were received from the stakeholders.



Decision No. 3. Regarding Initial RAB

- (i) The Authority decides to consider the initial regulatory asset base for the 1st Control Period for Patna Airport as INR 15.36 crores in accordance with Table 13.



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7. Capital Expenditure for the 1st control period

A. AAI's initial submissions

7.1 AAI had proposed aeronautical capital expenditure of INR 951.41 crores for the 1st control period. This has been shown in the table below.

Table 14: Capital expenditures proposed by AAI (figures in INR crores)

Asset category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Runways, Aprons and Taxiways	7.60	-	-	-	4.48	12.08
Road, Bridges & Culverts	-	-	-	-	81.68	81.68
Building – Terminal	5.59	34.71	-	-	480.70	521.00
Building – Residential	-	49.04	-	-	-	49.04
Plant & Machinery	4.06	-	-	-	-	4.06
Electrical Installations	1.59	24.30	-	-	278.88	304.77
CFT/Fire Fighting Equipment	4.03	-	-	-	-	4.03
Others	2.38	-	-	-	-	2.38
Total	25.25	108.05	-	-	845.74	979.04

B. Authority's examination at Consultation Stage

7.2 The Authority observed the following in respect of the proposed capital expenditures.

7.2.1 AAI had conducted AUCC meeting on 17th January 2017, and, from the 'minutes' of the meeting, the Authority observed that the discussions in the meeting were limited to a broad set of needs regarding Patna Airport. No concrete and quantitative proposals were made therein.

The proposals were restricted to six points:

- i) Provision of State Police out post
- ii) 24-hour flight operations
- iii) To increase to capacity of terminal building (increase by 3 mppa)
- iv) Environmental clearances
- v) Space for fuel bowsers in airside
- vi) Infrastructure for non-scheduled international flight

Post this date, AAI had not conducted any AUCC meeting, despite significant deviations and additions from previous meeting with respect to proposed capital expenditures. The Authority communicated the same to AAI. AAI submitted that a fresh AUCC meeting would be conducted for Patna Airport before passing of the Tariff Order. Accordingly, this meeting was later held as explained in Chapter 1 – Introduction.

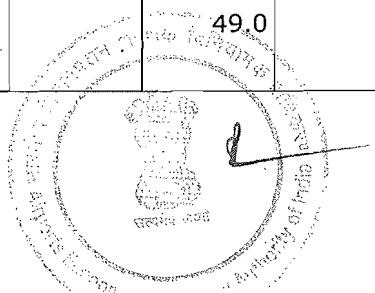
7.2.2 Capital expenditure with respect to the new Terminal Building and related airside and terminal works - INR 926.2 crores

7.2.2.1 The existing capacity of the airport is 0.7 million passengers while the airport served 3.1 million passengers in FY 2017-18. This traffic is expected to grow further in future. To accommodate this growing traffic, AAI has proposed to build a new terminal building. The total cost for this new terminal building, along with the associated airside and residential expansion works, is proposed by AAI to be INR 926.2 crores.

The table below shows a detailed breakup of the above mentioned cost:

Table 15: Additions in relation to the new terminal building and associated expansion works as per AAI (INR crores)

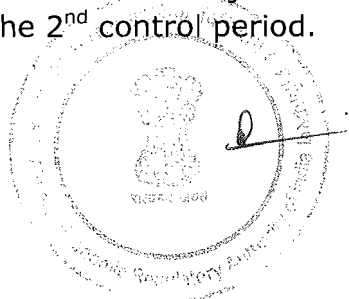
Particulars	Project Type	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Construction of Apron Phase-2 for 2nos. C-Type aircrafts	Runways, Aprons and Taxiways	7.6					7.6
Apron-Civil work	Runways, Aprons and Taxiways					4.5	4.5
Elevated 6 Lane road & 2 lane Ramps apron work	Road, Bridges & Culverts					76.3	76.3
Link Bridge-MLCP to Terminal Building Civil work	Road, Bridges & Culverts					5.4	5.4
Construction of NTB Ph-I-Fire station-civil work	Building Terminal		11.8				11.8
Construction of NTB Ph-II-Terminal Building-civil work	Building Terminal		0.0			454.4	454.4
Construction of NTB Ph-II-Admn block & surface parking-civil work	Building Terminal		0.0			13.3	13.3
Construction of NTB Ph-II-MT Pool-civil work	Building Terminal		0.0			9.2	9.2
Construction of NTB Ph-II-Community Hall-civil work	Building Terminal		0.0			3.9	3.9
Construction of NTB Ph-II-Residential QTRS-civil work	Building - Residential		49.0				49.0



Particulars	Project Type	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Construction of NTB Ph-I-Fire station Elect work	Electrical Installations		1.5				1.5
Construction of NTB Ph-II-Terminal Building-elect work	Electrical Installations					269.4	269.4
Construction of NTB Ph-II-Admn block &	Electrical Installations					4.4	4.4
surface parking-Elect work							
Construction of NTB Ph-II-MT Pool-Elect work	Electrical Installations					3.4	3.4
Construction of NTB Ph-II-Residential QTRS-Elect work	Electrical Installations		10.5				10.5
Link Bridge-MLCP to Terminal Building Civil work	Electrical Installations					0.7	0.7
Construction of NTB Ph-II-Community Hall-civil work	Electrical Installations					0.9	0.9
Total		7.6	72.8	0.0	0.0	845.7	926.2

7.2.2.2 The Authority examined the rationale behind the proposed capital expenditure, along with its status. Further, the Authority sought and observed a detailed break-up of the expected costs for this capital expenditure.

7.2.2.3 The Authority has adopted the 'normative approach' towards determination of cost of terminal building. The Authority has considered a normative cost of INR 100,000 per sq. meters. The Authority has given clarification regarding this normative cost in previous tariff orders pertaining to other airports such as Guwahati, Lucknow. The Authority undertook studies for a few major airports for determining the reasonableness of the capital expenditures for their respective terminal buildings. As per these studies, the cost worked out to be in the range of 0.95 to 1.25 lakhs per sq. meter. Accordingly the Authority decided to adopt INR 100,000 per sq. meter for terminal buildings of this design and specifications. This cost is subject to review during the determination of tariff for the 2nd control period.



7.2.2.4 As per details received from AAI, the terminal building will spread across an area of 65,155 square meters. Moreover, AAI informed the Authority that 10.97% of the new terminal building will be used for non-aeronautical operations. The Authority found the normative cost as per the above mentioned order to be 651.55 crore and the aeronautical portion of this to be 580.07 crore. The Authority thus concluded that that the cost proposed by AAI for terminal building, i.e. INR 723.80 crores (INR 454.40 for civil work and INR 269.40 crores for electric installations) was not within the normative cost. Therefore, the Authority proposed to take the normative cost, i.e. INR 580.07 crores (INR 364.17 for civil work and INR 215.91 crores for electric installations) as cost for terminal building. Considering that the non-aeronautical ratio of 10.97% is in line with other existing AAI airports, the Authority proposed to consider the same.

7.2.2.5 The Authority sought from AAI details with respect to the total area of the proposed pavement assets. As per the details received from AAI, the normative cost of these pavement assets comes out to be INR 9 crores, as against INR 12.08 crores proposed by AAI. Therefore, the Authority proposed to revise the cost of these assets to INR 9 crores. The computation of normative cost has been shown below.

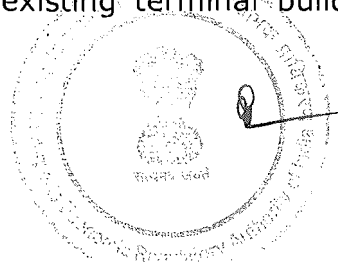
Table 16: Computation of normative cost of pavement assets by Authority (consultation stage)

Particulars	Phase 1	Phase 2	Total
Area	9,800	5,550	15,350
Cost per sq. mt. as on 1st April 2016 (INR)	4,700	4,700	
Inflation % assumed	5%	5%	
Number of years of inflation	3	7	
Inflation factor	1.16	1.41	
Normative cost (INR crores)	5.33	3.67	9.00
Cost proposed by AAI (INR crores)	7.60	4.48	12.08
Cost proposed by Authority (INR crores)	5.33	3.67	9.00

7.2.2.6 The Authority considered the current status of these projects, and found that they should be completed by 31/3/23. The Authority notes that should AAI fail to commission the same by the proposed date, in addition to the normal true-up with carrying cost, 1% additional penalty, by way of reduction of the said value from ARR, will be imposed on AAI.

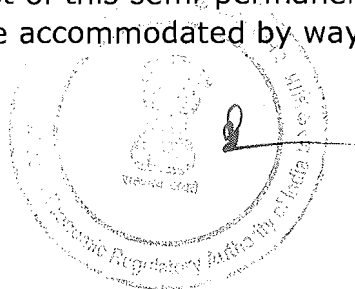
7.2.3 Semi-permanent expansion of terminal building – INR 35.23 crores:

7.2.3.1 AAI has proposed that additional expense of INR 35.23 crores would be incurred in the 1st control period for the capacity expansion and renovation of the existing terminal building. As explained in para on



page 22, the normative cost of INR 100,000 per sq. meter is adopted for terminal buildings of this design and specifications.

- 7.2.3.2 As per details received from AAI, the terminal building expansion will spread across an area of 1,850 square meters. Moreover, AAI informed the Authority that 100% of the existing terminal building will be used for aeronautical operations. The Authority found the normative cost as per the above mentioned order to be INR 18.50 crore and the aeronautical portion of this to be INR 18.50 crore based on 100% allocation to aeronautical operations. The Authority found the 100% allocation to be appropriate based on existing capacity constraints and no plans by AAI to conduct any non-aeronautical activities in this area. The Authority concluded that the cost proposed by AAI for expansion of terminal building, i.e. INR 35.23 crores is not within the normative cost. Therefore, the Authority proposed to consider the normative cost, i.e. INR 18.50 crores as cost for expansion and renovation of the terminal building.
- 7.2.3.3 AAI has submitted that this building is to be used only for semi-permanent purposes, to accommodate the rising passenger traffic, until the new terminal building becomes operational. Further, AAI submitted that the area where this temporary building will be built, will eventually be used for apron expansion and construction. Therefore, this semi-permanent building will need to be demolished after three years of its operation.
- 7.2.3.4 The Authority observed that AAI classified this semi-permanent terminal building in the asset category - "Building - Terminal", thereby resulting in a useful life of 30 years. The Authority proposed to change this classification to "Building - Temporary", with a useful life of 3 years. This useful life of 3 years is based on Authority's discussions with AAI about its intent to use this semi-permanent terminal building.
- 7.2.3.5 After three years, there will be assets within this building that will have potential for re-use. These include various equipment, counters, etc. Therefore, the Authority proposed to consider a residual value of 15% for this building.
- 7.2.3.6 Because it is proposed to be used only for three years, the Authority encourages AAI to economize the cost of this building. Further, AAI is advised to plan ahead of time with respect to managing traffic at congested airports like Patna. Any planning for accommodation of traffic should be done on an advanced basis. The proposed new terminal building should have been planned at least three to four years in advance to avoid the congestion that the airport faces today, avoiding inconvenience to the passengers.
- 7.2.3.7 During tariff determination for the second control period, the Authority will examine the actual cost of this semi-permanent building and its use. Any changes therein will be accommodated by way of true-up.



7.2.4 Others:

7.2.4.1 Other than the above mentioned assets, AAI has proposed other assets of smaller nature amounting to a total of INR 17.65 crores. The prominent ones among these include the following.

- a) Supply of ACFT (REVs) in tariff year 1 amounting to INR 4.03 crores.
- b) SITC of Biometric Access control system in tariff year 1 amounting to INR 2.63 crores.
- c) Pre-fabricated / pre-engineered structure for extension of security hold area for decongestion – INR 2.27 crores.
- d) Provision of metallic false ceiling and allied work in terminal building in tariff year 1 amounting to 1.33 crores.
- e) Refurnishing and renovation of existing public concourse arrival and departure – INR 1.65 crores.

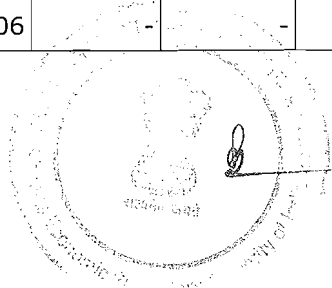
7.2.4.2 For these assets, the Authority verified the administrative approvals and award letters, and discussed the rationale with AAI for proposing them. The Authority proposed to consider these asset additions as proposed by AAI.

7.3 The Authority observed that an existing MET building will be demolished and a new MET building will be constructed at a separate location because of the construction of the new terminal building in FY 2022-23. The cost associated with this construction, i.e. INR 10.14 crores (INR 7.87 crores + 2.27 crores) had been added to repairs and maintenance expense. As per the narration given in the MYTP, these expenses pertain to construction of a new building and therefore, creation of a new asset, which makes it a capital expenditure, and not a revenue expenditure. The Authority proposed to shift this amount from Operations and Maintenance Expense to Additions made to RAB.

7.4 In accordance with above, the Authority proposed the capital expenditure as per the table below.

Table 17: Capital expenditure as proposed by the Authority (figures in INR crores) (consultation stage)

Asset category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Runways, Aprons and Taxiways	5.33	-	-	-	3.67	9.00
Road, Bridges & Culverts	-	-	-	-	81.68	81.68
Building – Terminal	5.59	11.81	-	-	398.35	415.75
Building – Temporary	0.95	18.50	-	-	-	19.45
Building – Residential	-	49.04	-	-	-	49.04
Plant & Machinery	4.06	-	-	-	-	4.06



Electrical Installations	1.59	11.98	-	-	227.66	241.22
CFT/Fire Fighting Equipment	4.03	-	-	-	-	4.03
Others	1.43	-	-	-	-	1.43
Total	22.98	91.32	-	-	711.36	825.66

C. Addendum to Consultation Paper

7.5 Regarding capital expenditure, the Authority received comments from FIA, AAI and BAOA. The issues raised by FIA were with regard to the cost of residential quarters, requirement of a new airport in Bihta / a new terminal building at Patna Airport, and the cost of a semi-permanent structure at the Airport. AAI responded to the issues raised by FIA. Further, AAI proposed to revise some of its previous submissions that were considered in the Consultation Paper. The Authority carefully read the comments raised by FIA, AAI's responses to these comments, and AAI's own comments and modifications to the previous proposals.

7.6 These have been discussed in the paragraphs below.

C.1. Comments from FIA

7.7 Cost of Residential Quarter:

The cost of residential quarters seems high. We request a justification from AAI for the cost of residential quarters, backed with relevant details.

7.8 Bihta Airport:

FIA reiterates the same point for Bihta Airport as mentioned previously in the traffic chapter.

7.9 Difference from presentation:

Overall capital expenditures projected in AUCC were different from cost proposed by AAI in the Consultation Paper.

7.10 Cost per square meter of Apron:

We request AAI for clarification regarding the area and cost of the proposed Apron.

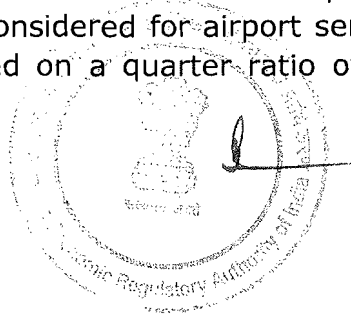
7.11 Semi-permanent building:

The cost of semi-permanent terminal building projected in AUCC was different from cost proposed by AAI in the Consultation Paper.

C.2. Response to FIA's comments by AAI

7.12 Cost of Residential Quarter:

The total cost of construction of residential quarter is proposed at INR 50.24 crores. The cost considered for airport services is now proposed to be INR 32.56 crores based on a quarter ratio of 70:38, for a total of 108 residential quarters.



7.13 Bihta Airport:

Reply from AAI is explained and presented in the 'Traffic' Chapter of the Addendum.

7.14 Difference from presentation:

In consultation paper, only capital expenditure pertaining to aeronautical portion has been given. However, in the presentation during AUCC, the total cost was shown.

7.15 Cost per square meter of Apron:

The cost of apron is INR 12.08 crores. This comprises of GSE area cost of INR 0.98 crores, earthwork INR 0.48 crores, site barricading INR 0.15 crores, cost of contingency INR 0.32 crores and cost of GST on work (differential) INR 1.15 crores, total amounting to INR 2.30 crores.

Excluding the above, the cost of apron works out to be INR 5,727 per sq. m.

7.16 Semi-permanent building:

The Authority had considered INR 18.5 crores based on normative cost for the proposed semi-permanent expansion of terminal building (1850 sq. m.) against INR 35.23 crores projected earlier.

AAI has now finalized the modification plan of existing building at a revised cost of INR 13.66 crores with a total area addition of approximately 2000 sq. m. (1850 sq. m. in departure + 150 sq. m. in arrival)

AAI has requested the Authority to consider total cost as INR 13.66 crores.

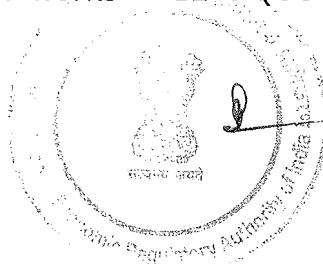
C.3. Further comments by AAI

7.17 Cost of new terminal building:

The Authority has considered INR 589.07 crores considering normative cost of INR 1.00 lakh per sq. m. for proposed terminal building (65155 sq. m.) in the Consultation Paper.

Major reasons for increase in cost beyond Normative Cost are:

- Aluminum insulated PVDF roofing system including structure cost INR 36.95 crores.
- Curtain wall/stone cladding on outer envelope of TB cost of INR 14.47 crores.
- Superior flooring like granite cost of INR 13.88 crores.
- Cost of PMC fee (5.69% + 18% GST) INR 39.81 crores.
- Cost of contingency @3% INR 22.19 crores.
- Difference of tax on works - 12% (GST 18% - S. Tax/VAT) 6%) INR 71.17 crores.



After considering the above, the cost of terminal building works out to be INR 85,540 per sq. m. (1,16,000-30,460)

The Authority is requested to consider total cost of terminal building of INR 723.80 crores.

7.18 Cost of MET building:

An existing MET building will be demolished and a new MET building will be constructed at a separate location because of construction of the new terminal building in FY 2022-23.

AAI has charged off the expenditure of INR 10.14 crores towards MET relocation as the asset proposed to be constructed does not belong to AAI and will be handed over to MET.

The Authority has proposed to shift this amount from O&M to additions made to RAB.

An amount of INR 5 crores is likely to be incurred in FY 2021-22 and balance expenditure of INR 5.14 crores is likely to be incurred in FY 2022-23. The assets would be completed in October 2022 and will be handed over to MET.

The Authority is requested to consider expenditure of shifting/construction of MET building of INR 10.14 crores as this will not form part of AAI assets.

C.4. Comments by Business Aircraft Operators Association (BAOA)

7.19 Houses should be constructed only for the staff on essential 24x7 duties at the airport. There is a need to completely relook at the existing cost of construction of houses for the staff.

C.5. Authority's evaluation of comments by FIA, AAI and BAOA

7.20 Cost of Residential Quarter:

AAI had originally submitted the cost of construction of residential quarters as INR 92.64 crores with the likely date of completion as FY 2019-20 for construction of 108 units of residential quarters. In the tariff model submitted along with this submission, AAI had provided a cost estimate of INR 49.04 crores to be included as part of RAB. AAI has submitted a revised submission vide letter dated 14.03.2019. As per revised submissions of AAI, the overall cost of construction has been revised to INR 50.24 crores. This cost includes other costs ancillary to construction of residential quarters, including access roads, common utilities and amenities, among others. Out of this, AAI has assumed aeronautical allocation of 70 nos. residential quarters, i.e., INR 32.56 crores. Balance 48 nos. residential quarters assumed to be for ANS employees. This proportion has been based on the current allocation between ANS and aeronautical employees. There are no non-aeronautical employees residing currently.

The Authority also understands FIA's comment on the reasonableness of per unit cost of construction, which was working out to around INR 90 lakhs

per quarter based on initial submissions from AAI. With the revised estimates from AAI, per unit cost of construction comes out to around INR 50 lakhs, including ancillary costs of road, common utilities, etc. which appears to be reasonable.

The Authority also examined BAOA's comments on providing the quarters only for employees on 24x7 duties. The Authority proposed to include only the cost of quarters allotted to employees engaged in providing aeronautical services.

The Authority found the revised cost and allocation to be appropriate. Based on this allocation, the cost of residential quarters was proposed to be revised from INR 49.04 crores to INR 32.56 crores.

7.21 Bihta Airport:

The Authority has provided the requisite comment/observations in the Traffic chapter.

7.22 Difference from presentation:

The Authority found that the response provided by AAI is reasonable.

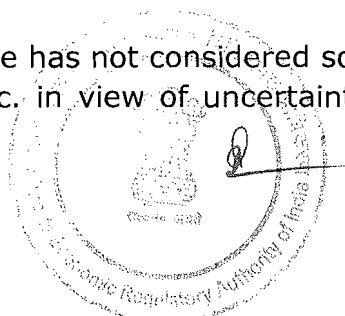
7.23 Cost per square meter of Apron:

In view of the additional submission by AAI regarding 2,100 sq. m. of GSE area, inadvertently left out in the Consultation Paper, the Authority has relooked at the cost of Apron. The Authority clarified that the cost of pavement assets comprising the GSE area was not considered under the Normative Cost. The Authority proposed to consider Normative Cost only for the Apron area. Further, costs related to GSE area and cost of earth work were proposed to be added to this Normative Cost. The revised cost estimate as proposed by the Authority worked out to be INR 10.46 crores, which has been detailed in the table below.

Table 18: Revised cost estimate of apron as per Authority (Addendum to consultation paper)

Particulars	Phase 1	Phase 2	Total
Area (sq. m)	9,800	5,550	15,350
Cost per sq. m (1st April 2016)	4,700	4,700	
Inflation	5%	5%	
Number of years of inflation	3	7	
Inflation factor	1.16	1.41	
Normative cost (INR cr.)	5.33	3.67	9.00
Add: cost of GSE area	0.63	0.35	0.98
Add: cost of earth work	0.31	0.17	0.48
Total cost – normative (INR cr.)	6.26	4.20	10.46
Cost proposed by AAI (INR cr.)	7.60	4.48	12.08
Cost to be taken (INR cr.)	6.26	4.20	10.46

The Authority at this stage has not considered some costs like differences in GST, site barricading, etc. in view of uncertainty in actual cost. However,



the Authority will true up the RAB based on actual cost during the tariff determination of the 2nd Control Period.

7.24 Semi-permanent building:

AAI has revised the cost estimates from earlier INR 35.23 crores to INR 13.66 crores. The Authority earlier considered a normative cost of INR 18.50 crores. As the cost proposed by AAI is less than the normative cost, the Authority proposed to revise the projections to the cost proposed by AAI, i.e. 13.66 crores. Further, the Authority relooked at the potential of reusing the assets. Some of these assets, like all equipment, have the potential of re-use. The Authority expects AAI to re-use these assets in the new project. Considering the significant proportion of such assets in the overall asset package, the Authority proposed to revise the residual value from 15% to 70%. The Authority further proposed to re-assess the situation after demolition of the semi-permanent structure and its re-use during the second control period and make suitable adjustments thereon.

7.25 Cost of new terminal building:

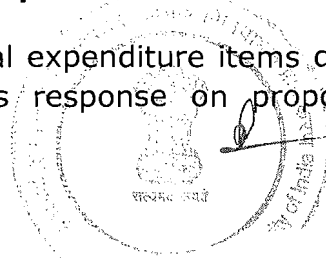
The Authority noted the comments made by AAI regarding the excess cost over normative cost, for the new terminal building. The Authority had taken the normative cost of INR 1 lakh per sq. m. which includes the cost towards roofs, wall cladding, flooring, etc.. AAI had not highlighted any extra benefit that will accrue to the users due to the superior finish of the building as stated by them. In the absence of any specific additional benefit accruing to the users, the Authority was not inclined to consider the same as they only contribute to raise the cost. However, some of the items like PMC, GST etc. will be looked into at the time of trueing up the cost during tariff determination of the 2nd Control Period.

7.26 Cost of MET building:

The Authority had deliberated on this issue before finalization of Consultation Paper. The stand taken by the Authority remained unchanged. The present MET Building is situated where the new Terminal Building is to be constructed. Therefore, it needs to be shifted to a new location. Consequently, the cost of shifting and constructing the new MET Building is a direct result of the construction of the new Terminal Building. The Authority noted AAI's response that it follows an Accounting Policy, where this cost is recorded as an operating expenditure. However, on account of the direct causality between construction of new MET Building and new Terminal Building, the Authority is of the view to capitalize the cost of shifting and constructing the new MET Building in the regulatory accounts. Accordingly, the expenditure on construction of new MET Building needs to be capitalized along with cost of new Terminal Building as part of the overall cost.

C.6. Authority's revised proposal in Addendum to Consultation Paper

7.27 In addition to the capital expenditure items discussed above, the Authority had reference to AAI's response on proposed funding for the capital



expenditure. The Authority noted that AAI has proposed use of debt for investment in the new Terminal Building. In this regard, the guidelines (Direction No. 5/2011 dated 28th February 2011) provide for a mechanism of financing allowance. The same is discussed below, as if applicable and permitted, the financing allowance will need to be added in RAB for respective years.

As per Authority's guidelines, the financing allowance is computed as per the following formula:

$$\text{Financing allowance} = R_d \times [(WIPA_{t-1} + (\text{Capex} - \text{SC} - \text{CA})/2]$$

Where, R_d = cost of debt

$WIPA_{t-1}$ = Opening balance of work in progress assets

Capex = Capital expenditure incurred during a year

SC = Capital receipts as contribution from stakeholders

CA = Commissioned assets

The Authority noted that the funding of actual quantum of loan and rates are not finalized. It is not clear when the loan will be drawn and its actual utilization. Moreover, in the absence of any data provided by AAI, the Authority is not sure of the quantum of WIP and capitalization over the period. The Authority had not proposed any financing allowance in the project cost. However, the Authority proposed to provide for financing allowance if adequate details are made available by AAI before issue of Tariff Order. Because these have still not been made available, the Authority decides not to consider any financing allowance. The Authority may consider the quantum of financing allowance at the time of truing up in the second Control Period.

After considering all the changes discussed from stakeholders' comments and their evaluation, the capital expenditure proposed by the Authority has been shown in the table below.

Table 19: Revised capital expenditure proposed by the Authority (INR crores) (Addendum to Consultation Paper)

Asset category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Runways, Aprons and Taxiways	6.26	-	-	-	4.20	10.46
Road, Bridges & Culverts	-	-	-	-	81.68	81.68
Building – Terminal	5.59	11.81	-	-	398.35	415.75
Building – semi permanent	0.95	13.66	-	-	-	14.61
Building – Residential	-	32.56	-	-	-	32.56
Plant & Machinery	4.06	-	-	-	-	4.06
Electrical Installations	1.59	11.97	-	-	227.66	241.22
CFT/Fire Fighting Equipment	4.03	-	-	-	-	4.03
Others	1.43	-	-	-	-	1.43
Total	23.91	70.00	-	-	711.89	805.80

D. Stakeholder comments on Addendum to Consultation Paper

D.1. Comments from FIA

7.28 New terminal building - normative cost:

FIA submits that a copy of studies (that led to change in normative cost from 65,000 with inflation to 100,000 without inflation) should be provided to FIA and other stakeholders for their review.

Because of regional differences of Patna, the Authority should follow the normative cost order only.

Authority should provide cost break up because there has been a deviation from normative cost of INR 65,000.

7.29 Allocation of terminal building to electrical installations:

FIA has requested the Authority for the basis of allocation of new terminal building across the two asset categories - terminal building and electrical installations.

D.2. Response to FIA's comments by AAI

7.30 New terminal building - normative cost:

AAI did not respond to this observation by FIA.

7.31 Allocation of terminal building to electrical installations:

AAI has allocated capex on the basis of the abstract of cost for civil and electrical works. A copy of the same was provided by AAI.

D.3. Authority's evaluation of comments by FIA and AAI's responses

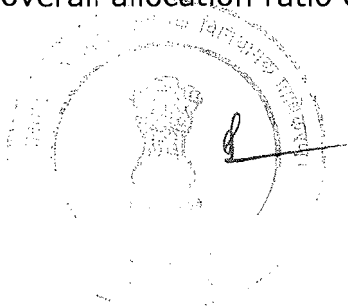
7.32 New terminal building - normative cost:

The Authority has already provided the justification behind change in normative cost from INR 65,000 per sq. mt. to INR 100,000 per sq. mt. Further, it should be noted that the Authority has considered INR 100,000 to be inclusive of inflation. The previous normative cost figure of INR 65,000 was exclusive of inflation.

The Authority decides to consider INR 100,000 per sq. mt. as the normative cost for the new terminal building.

7.33 Allocation of terminal building to electrical installations:

The overall allocation ratio between terminal building and electrical installations is 63:37. This is in line with other recent Orders of AAI airports. For example, the ratio in Bhubaneswar airport was 65:35. Further, AAI has provided cost estimates bifurcated in the two asset categories, which are close to the overall allocation ratio considered by the Authority.

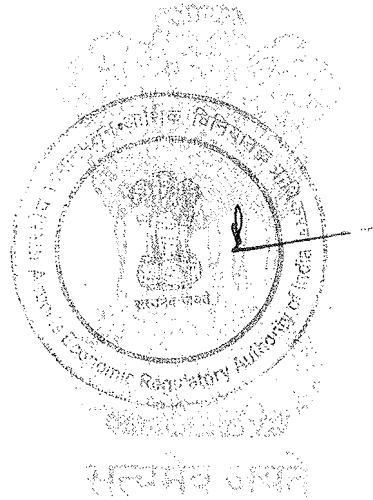


D.4. Authority's final evaluation

7.34 Final capital expenditures considered by the Authority have been given in Table 19.

Decision No. 4. Regarding capital expenditures

- (i) The Authority decides to adopt the capital expenditures for the 1st control period in accordance with Table 19.



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8. Depreciation

A. AAI's initial submissions

- 8.1 AAI follows its own set of rates of depreciation for different asset classes, which are approved by its Board. While submitting the Multi Year Tariff proposal for the first control period, AAI has taken cognizance of the rates of depreciation approved by the Authority in previous tariff orders. Accordingly, AAI has proposed three different sets of rates. These are based on three different periods – up to FY 2015-16, from 01/04/16 to 31/03/18, and beyond 01/04/18.
- 8.2 In the first period, i.e., up to FY 2015-16, the airport was not under the definition of a Major Airport as per Section 2(i) of Airports Economic Regulatory Authority of India Act. Therefore, the depreciation rates for this period has been proposed by AAI to be as per AAI's accounting policy. For the second period, i.e., from 01/04/16 to 31/03/18, the airport was covered under the definition of the Major Airport. Therefore, the depreciation rates for this period has been proposed by AAI to be as per the Authority's examination. For the 3rd period, i.e., beyond 01/04/18, the depreciation rates has been proposed by AAI to be as per the Authority's order No. 35/2017-18 titled "In the matter of Determination of Useful life of Airport Assets", which defines the normative useful lives for various airport assets.
- 8.3 Further, depreciation has been computed separately on opening block of assets and on proposed additions.
- 8.4 The depreciation rates proposed by AAI have been summarized in the table below.

Table 20: Depreciation rates proposed by AAI

Asset category	Up to FY 2016	Between FY 2016 and FY 2018		Beyond FY 2018	
		For opening block of assets	For proposed additions	For opening block of assets	For proposed additions
Leasehold Land	0%	0%	0%	0%	0%
Runways, Aprons and Taxiways	13%	3.33%	3.33%	3.33%	3.33%
Road, Bridges & Culverts	13%	3.33%	3.33%	10.00%	10.00%
Building – Terminal	8%	3.33%	3.33%	3.33%	3.33%
Building – Temporary	100%	33.33%	33.33%	33.33%	33.33%
Building – Residential	5%	3.33%	3.33%	3.33%	3.33%
Boundary Wall – Operational	8%	3.33%	3.33%	10.00%	10.00%
Boundary Wall –	5%	3.33%	3.33%	10.00%	10.00%

Asset category	Up to FY 2016	Between FY 2016 and FY 2018		Beyond FY 2018	
		For opening block of assets	For proposed additions	For opening block of assets	For proposed additions
Residential					
Computer - End user	20%	16.67%	16.67%	33.33%	33.33%
Computer - Servers and networks	20%	16.67%	16.67%	16.67%	16.67%
Intangible - Assets - Software	20%	20.00%	20.00%	20.00%	20.00%
Plant & Machinery	11%	6.67%	6.67%	6.67%	6.67%
Tools & Equipment	20%	6.67%	6.67%	6.67%	6.67%
Furniture & Fixtures: Other Than Trolley	20%	10.00%	10%	14.29%	14.29%
Furniture & Fixtures: Trolley	20%	6.67%	10%	33.33%	33.33%
Vehicles	14%	12.50%	12.50%	12.50%	12.50%
Electrical Installations	11%	10.00%	10.00%	10.00%	10.00%
Other Office Equipment	18%	20.00%	20.00%	20.00%	20.00%
X Ray Baggage System	11%	6.67%	6.67%	6.67%	6.67%
CFT/Fire Fighting Equipment	13%	6.67%	6.67%	6.67%	6.67%

8.5 The depreciation amount proposed by AAI for the 1st control period has been presented in the table below.

Table 21: Depreciation proposed by AAI (figures in INR crores)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Depreciation	2.40	2.51	3.70	6.54	8.85	8.41	34.14

B. Authority's examination at Consultation Stage

8.6 The Authority noted the submission of three different rates of depreciation by AAI for different periods under consideration and has duly examined these for consideration towards determination of aeronautical tariff.

8.7 For period up to FY 2016, the Airport did not come under the regulatory ambit of the Authority. Therefore, the Authority determined that the depreciation rates used by AAI according to its internal accounting policies are allowed to be followed in order to compute the net block of initial RAB. The Authority observed that the depreciation rates used by AAI up to FY 2016 were in line with its accounting policies, and hence the Authority does not propose any change in these.

- 8.8 As far as the period between 01/04/2016 and 31/03/2018 is considered, the Authority has had reference to its previous Tariff Orders for various AAI airports (Order No. 23/2017-18 dated 27/11/2017 for Kolkata airport, Order No. 10/2017-18 dated 04/08/2017 for Jaipur airport, and Order No. 03/2017-18 dated 02/06/2017 for Trivandrum Airport). In these Tariff Orders, the Authority considered the depreciation rates as prescribed in the Companies Act, 2013 for the purposes of tariff determination. Continuing with this approach, the Authority proposed to consider these rates of depreciation for the period between 01/04/2016 and 31/03/2018 for the purposes of tariff determination of Patna Airport as well.
- 8.9 Upon examination of rates of depreciation proposed by AAI for this period, the Authority observed that except in case of one asset category, the rates proposed by AAI were in line with the above mentioned previous tariff orders. In case of RAB for "Furniture and Fixtures: Trolley", AAI has used 6.67% rate. However, the Authority proposed to revise this to 10% in accordance with the above mentioned previous tariff orders. The rates used and proposed for this assets category is presented in the table below.

Table 22: Differences in appropriate depreciation rates for the period between 01/04/2016 and 31/03/2018

Asset category	Rate as per Authority's previous orders for AAI airports	Rate used by AAI	Difference between both rates
Furniture and fixtures – trolley	10%	6.67%	-3.33%

- 8.10 For the period from 01/04/2018 onwards, the Authority had reference to its study, which was commissioned to determine appropriate depreciation rates for regulation of airports in line with the provisions of the Companies Act, 2013.
- 8.11 As a result of this study, the Authority, vide its Order No. 35/2017-18 titled "In the matter of Determination of Useful life of Airport Assets", spelled out the normative depreciation rates which need to be used for computation of Aggregate Revenue Requirement.
- 8.12 These normative depreciation rates of airport assets as per the above mentioned Order, relevant to Patna Airport, have been presented in the table below.

Table 23: Depreciation rates as per Authority's Order No. 35 / 2017-18

Asset category	Beyond FY 2018
Leasehold Land	0%
Runways, Aprons and Taxiways	3.33%
Road, Bridges & Culverts	10.00%
Building – Terminal	3.33%
Building – Temporary	33.33%
Building – Residential	3.33%

Boundary Wall – Operational	10.00%
Boundary Wall – Residential	10.00%
Computer - End user	33.33%
Computer - Servers and networks	16.67%
Intangible Assets – Software	20.00%
Plant & Machinery	6.67%
Tools & Equipment	6.67%
Furniture & Fixtures: Other Than Trolley	14.29%
Furniture & Fixtures: Trolley	33.33%
Vehicles	12.50%
Electrical Installations	10.00%
Other Office Equipment	20.00%
X Ray Baggage System	6.67%
CFT/Fire Fighting Equipment	6.67%

8.13 The Authority observed that the depreciation rates used by AAI for the period beyond 01/04/2018 are in line with the rates as per the above mentioned Order. Therefore, the Authority did not propose any change in these.

8.14 Combining its observations across the three periods, the Authority proposed the depreciation rates to be considered for tariff determination in respect of Patna Airport as per the following table.

Table 24: Depreciation rates proposed by the Authority (consultation stage)

Asset category	Up to FY 2016	Between FY 2016 and FY 2018		Beyond FY 2018	
		For opening block of assets	For proposed additions	For opening block of assets	For proposed additions
Leasehold Land	0%	0%	0%	0%	0%
Runways, Aprons and Taxiways	13%	3.33%	3.33%	3.33%	3.33%
Road, Bridges & Culverts	13%	3.33%	3.33%	10.00%	10.00%
Building – Terminal	8%	3.33%	3.33%	3.33%	3.33%
Building – Temporary	100%	33.33%	33.33%	33.33%	33.33%
Building – Residential	5%	3.33%	3.33%	3.33%	3.33%
Boundary Wall – Operational	8%	3.33%	3.33%	10.00%	10.00%
Boundary Wall – Residential	5%	3.33%	3.33%	10.00%	10.00%
Computer - End user	20%	16.67%	16.67%	33.33%	33.33%

Asset category	Up to FY 2016	Between FY 2016 and FY 2018		Beyond FY 2018	
		For opening block of assets	For proposed additions	For opening block of assets	For proposed additions
Computer - Servers and networks	20%	16.67%	16.67%	16.67%	16.67%
Intangible Assets - Software	20%	20.00%	20.00%	20.00%	20.00%
Plant & Machinery	11%	6.67%	6.67%	6.67%	6.67%
Tools & Equipment	20%	6.67%	6.67%	6.67%	6.67%
Furniture & Fixtures: Other Than Trolley	20%	10.00%	10%	14.29%	14.29%
Furniture & Fixtures: Trolley	20%	10%	10%	33.33%	33.33%
Vehicles	14%	12.50%	12.50%	12.50%	12.50%
Electrical Installations	11%	10.00%	10.00%	10.00%	10.00%
Other Office Equipment	18%	20.00%	20.00%	20.00%	20.00%
X Ray Baggage System	11%	6.67%	6.67%	6.67%	6.67%
CFT/Fire Fighting Equipment	13%	6.67%	6.67%	6.67%	6.67%

8.15 The Authority observed that depreciation amount for Air Conditioning System under the asset category, "Electrical Installations" worth INR 0.35 crores was inserted as a hard coded values which differs from actual should-be values. The Authority proposed to change these values to appropriate figures obtained using proper depreciation rates. The proposed depreciation amounts for this asset is as follows:

Table 25: Depreciation amount proposed for Air Conditioning System (figures in INR crores) (consultation stage)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Depreciation Amount Recorded by AAI	0.02	0.02	0.02	0.02	0.02	-0.02	-0.06
Depreciation Amount Proposed by the Authority	0.03	0.03	0.03	0.01	-	-	-

8.16 On account of changes in depreciation rates, and the changes in proposed capital expenditure, the Authority proposed the following depreciation during the 1st control period as per Addendum to Consultation Paper.

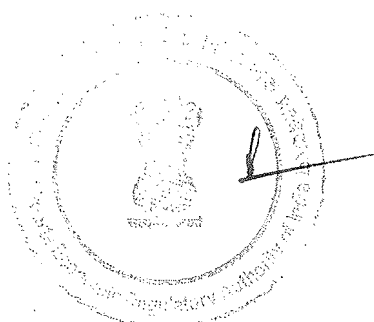


Table 26: Depreciation as per the Authority (figures in INR crores) (Addendum to consultation paper)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Depreciation	2.39	2.50	3.65	5.85	7.56	7.32	27.64

C. Stakeholder comments

C.1. Comments from FIA

8.17 FIA has submitted that the useful life for depreciation of residential building and terminal building should be 60 years, instead of 30 years considered by the Authority.

C.2. Response to FIA's comments by AAI

8.18 AAI has followed the useful life policy of assets as prescribed by the Authority for residential building and terminal building.

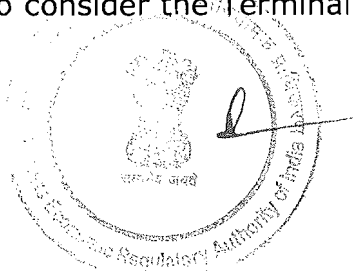
C.3. Authority's evaluation of comments by FIA and AAI's responses

8.19 Regarding the terminal building, the Authority has followed its Order No. 35 / 2017-18 dated 12th January, 2018. Following are the relevant extracts from this Order:

- As per Annexure I - Useful life of assets, the Authority decided to consider useful life of terminal building as either 30 years or 60 years. The choice between 30 years and 60 years should be evaluated by the airport operator (AAI).

AAI has evaluated the useful life of terminal building at Patna Airport as 30 years.

- As part of the consultation proceedings before the Order was made effective, the Authority invited suggestions from various stakeholders. Various airport operators submitted their suggestions regarding useful life of terminal buildings. These are reproduced below.
 - BIAL commented, "We would like to draw reference to Para 2.2.5 of Consultation Paper wherein Part-C Building and Roads, Companies Act 2013 rates for different types of buildings has been specified as RCC frame structure/ Other than RCC frame structure/ factory buildings etc. In the final rates proposed under Annexure-5, the useful lives have been specified as 30/60 years. As the Terminal Building, even though RCC frame structure, because of 24* 7 usage for 365 days and due to high wear and tear, we request the Authorities to consider the Terminal Buildings to be equated to



Factory Building with life of 30 years in line with Companies Act 2013."

- GGIAL commented, "In the above-mentioned consultation paper, Authority has proposed useful life of 60 years for the building with RCC Frame Structure. However, keeping in mind the airport operations which is 24X7 365 days in a year, building has got higher wear and tear and hence the said structure needs to be treated as factory building and should be depreciated as per the rate prescribed by Companies Act for factory building. Accordingly we suggest that the useful life of asset with respect to building with RCC structure should be lower of 30 years or the residual period of initial concession term."
- HIAL commented, "In the abovementioned consultation paper Authority has proposed useful life of 60 years for the building with RCC Frame Structure. However, keeping in mind the airport operations which is 24X7 365 days in a year, building has got higher wear and tear and hence the said structure needs to be treated as factory building and should be depreciated as per the rate prescribed by Companies Act for factory building. Accordingly we suggest that the useful life of asset with respect to building with RCC structure should be lower of 30 years or the residual period of initial concession term."

The Authority, at that time, had carefully evaluated these comments. In all these comments, the Authority noted that because of 24 hour operations, the airport operator felt that terminal buildings face faster wear and tear as compared to other buildings, despite the RCC Frame structure. In response to these comments, the Authority decided to keep the provision unchanged. Thereby, the airport operator was given the option to evaluate the useful life of the terminal building as either 30 years or 60 years. Further, considering the fact that Patna airport is 24 hours operational, and is running over capacity, the Authority does not see a need to re-evaluate the useful life of the building.

Therefore, the Authority decides to keep the useful life of the terminal building at Patna Airport unchanged at 30 years.

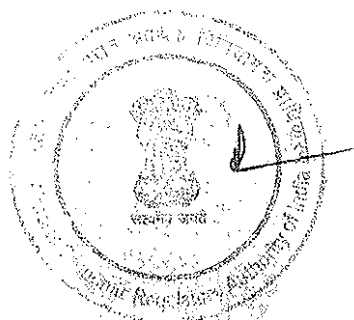
C.4. Authority's final evaluation

8.20 Final depreciation amounts considered by the Authority are given in Table 26.



Decision No. 5. Regarding depreciation

- (i) The Authority decides to adopt depreciation rates for Patna airport as per Table 24 for the 1st control period.
- (ii) The Authority decides depreciation amounts as per Table 26 for the 1st control period.



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9. Regulatory Asset Base for the 1st control period

A. AAI's initial submissions

9.1 AAI had submitted RAB for the 1st control period as follows:

Table 27: RAB for the 1st control period as per AAI's submission (figures in INR crores)

S. No.	Particulars	Pre-control regulatory period		Control period				
		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
A	Opening RAB	15.9	17.8	19.7	41.2	142.7	133.9	125.4
B	Capitalizations	4.4	4.3	25.2	108.0	-	-	845.7
C	Disposals	-	-	-	-	-	-	-
D	Depreciation	2.4	2.5	3.7	6.5	8.8	8.4	34.1
E	Closing RAB	17.8	19.7	41.2	142.7	133.9	125.4	937.1
F	Average RAB	16.8	18.7	30.4	92.0	138.3	129.7	531.3

B. Authority's final examination

9.2 During interactions with the Authority, AAI submitted that residential buildings are proposed to be demolished. After further discussions, AAI submitted that residential building worth INR 0.15 crore was demolished in FY 2017-18 and residential building worth INR 0.31 was demolished in FY 2018-19. The Authority proposed to revise the deletion schedule in accordance with AAI submissions.

9.3 The Authority duly examined each element of RAB in the previous chapters. The Authority decides to adopt the Initial RAB as per Table 13, the capital expenditures in accordance with Table 19, and the depreciation amounts in accordance with Table 26.

9.4 Combining all its propositions, RAB to be considered by the Authority for determination of aeronautical tariff for the 1st Control Period in respect of Patna Airport is as follows:

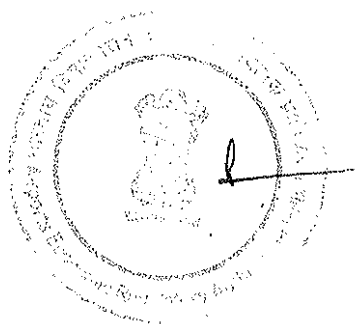
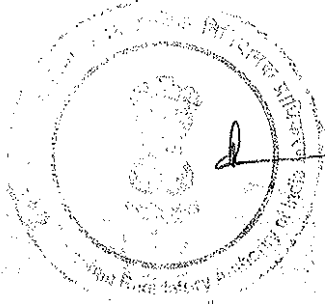


Table 28: Final RAB for the 1st control period after Authority's examination (figures in INR crores)

S. No.	Particulars	Pre-control regulatory period		Control period				
		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
A	Opening RAB	15.4	17.3	19.0	39.0	103.1	95.6	88.3
B	Capitalizations	4.4	4.3	23.9	70.0	0.0	0.0	711.9
C	Disposals	0.0	0.1	0.3	0.0	0.0	0.0	10.1
D	Depreciation	2.4	2.5	3.6	5.8	7.6	7.3	27.6
E	Closing RAB	17.3	19.0	39.0	103.1	95.6	88.3	762.4
F	Average RAB	16.3	18.2	29.0	71.1	99.4	91.9	425.3

Decision No. 6. Regarding average RAB

- (i) The Authority decides to consider average RAB for the 1st Control Period for Patna airport as per Table 28.



10. Fair Rate of Return (FRoR)

A. AAI's initial submissions

- 10.1 AAI has considered Fair Rate of Return (FRoR) as 14% at par with the decision taken by the Authority for other AAI airports, including Kolkata, Jaipur and Trivandrum, among others.
- 10.2 AAI has submitted that all financing activities are undertaken centrally at the corporate office of AAI. The funds are apportioned among airports by the corporate office.

B. Authority's examination at Consultation Stage

- 10.3 The Authority has recognized that AAI's capital structure may not be regarded as an efficient one in that it doesn't optimize the cost of funds from a regulatory perspective. The Authority desires that the FRoR allowed to AAI should come down over a period of time by optimizing capital gearing. The Authority may also consider a normative capital structure to determine the FRoR at a later date. It may not be reasonable to expect AAI to contract large amounts of debt over a short period of time.
- 10.4 The Authority notes that as per a study conducted in respect of the 'Fair Rate of Return Estimation for AAI' in July 2011, it estimated a figure of 14.96% as Fair Rate of Return for AAI. The Authority notes that it has considered FRoR at 14% for other AAI airports, in the past also, considering the recommendations of another study done by NIPFP.
- 10.5 Based on the above, the Authority proposed to consider FRoR at the rate of 14% for Patna Airport for the 1st control period as submitted by AAI.

C. Addendum to Consultation Paper

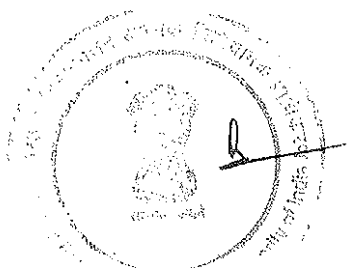
- 10.6 Regarding Fair Rate of Return (FRoR), the Authority received a comment from FIA regarding the mode of financing the new terminal building and the associated proposed assets. AAI responded to the issue raised by FIA. The Authority carefully considered AAI's response, and revised its proposal for FRoR.

C.1. Comments from FIA

- 10.7 AAI is requested to clarify the proposed source of financing for the new terminal building (including the allied assets).

C.2. Response to FIA's comments by AAI

- 10.8 The funding of new terminal building (including allied works) shall be met by leveraging AAI's capital structure through debts (60%) and internal resources (40%).



C.3. Authority's evaluation of comment by FIA and AAI's response

10.9 AAI has submitted that the new terminal building is being partly financed by debt (up to 60%). In view of this, the Authority proposed to revise the FRoR for the final year of first Control Period, in which the terminal building is expected to be operationalized.

AAI clarified that the said debt is in negotiation stages. The interest rate for the proposed debt contract is not finalized, and no estimate of such interest rate has been provided by AAI. Therefore, the Authority has relied on past debt contracts to compute the cost of debt. The Authority has referred to its past Orders for Kolkata and Chennai Airports, where the Authority considered cost of debt as 8.03%. For the purposes of Patna Airport as well, the Authority proposed to consider the cost of debt as 8.03%.

Table 29: Computation of FRoR in last year as proposed by the Authority (Addendum to consultation pape)

Assumptions:		
a.	Closing RAB (INR cr.)	762.43
b.	Additions made in last year (INR cr.)	711.89
c.	Portion of debt	60%
d.	Portion of equity	40%
e.	Cost of debt	8.03%
f.	Cost of equity	16%
Calculation of FRoR:		
g.	Cost of debt (INR cr.) (b x c x e)	34.30
h.	Cost of equity (INR cr.) - on last year additions (b x d x f)	45.56
i.	Cost of equity (INR cr.) - on balance assets [(a-b) x f]	8.09
j.	Total cost of capital (INR cr.)	87.95
k.	Total capital (a)	762.43
	FRoR (j/k)	11.54%

C.4. Authority's revised proposal in Addendum to Consultation Paper

10.10 The Authority proposed to consider FRoR of 14% for the first four years of the Control Period, and 11.54% for the fifth year of the Control Period.

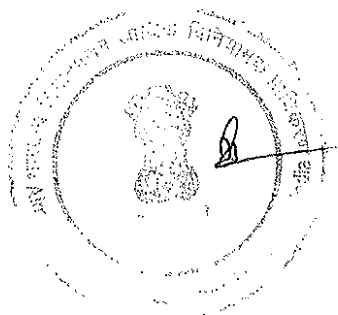
D. Stakeholder comments on Addendum to Consultation Paper

D.1. Comments from FIA

10.11 FIA has submitted that cost of equity in last year should be 14%, instead of 16% considered by the Authority.

D.2. Response to FIA's comments by AAI

10.12 AAI has not responded to FIA's comment.



D.3. Authority's evaluation of comments by FIA

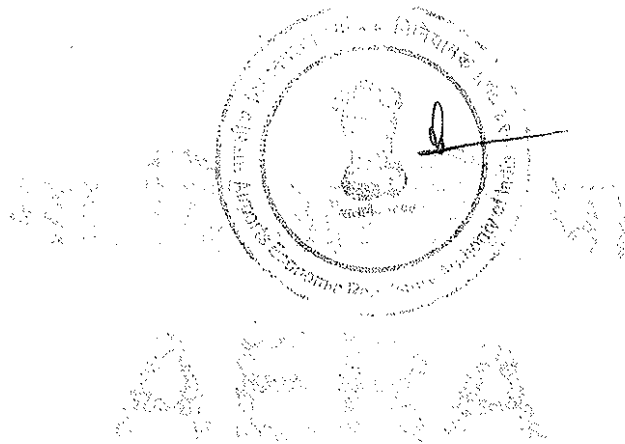
10.13 The cost of equity of 16% has been considered as per industry's general expectation for equity returns. This is in line with the Authority's position on cost of equity considered for other airports, where the capital comprises of both debt and equity. As AAI proposes to raise debt from the markets to fund its current capital expansion, its capital structure will comprise of both debt and equity. It is a norm that when debt is introduced in the capital structure, equity investors expect a higher return. The Authority has accordingly considered FRoR to be 14% during the initial four years of the control period as per its past studies in this regard, and cost of equity at 16% for the last year of the control period.

D.4. Authority's final evaluation

10.14 The Authority decides to consider Fair Rate of Return as 14% for the first four years of the Control Period for Patna Airport. For the fifth year, the Authority decides to consider the Fair Rate of Return as 11.54%.

Decision No. 7. Regarding Fair Rate of Return (FRoR)

- (i) The Authority decides to consider Fair Rate of Return as 14% for the first four years of the Control Period for Patna Airport. For the fifth year, the Authority decides to consider the Fair Rate of Return as 11.54%.



11. Non-aeronautical revenue

A. AAI's initial submissions

11.1 AAI has forecasted revenue from services other than aeronautical services as shown below.

Table 30: Non-aeronautical revenue projections as per AAI (figures in INR crores)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions							
Restaurant / snack bars	1.35	1.54	2.47	3.24	3.57	3.93	4.32
T.R. stall	1.01	1.13	1.42	1.61	1.77	1.94	2.14
Hoarding & display	1.89	2.35	2.58	2.84	3.13	3.44	3.78
2. Rent and services							
Land leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building (residential)	0.03	0.04	0.04	0.04	0.04	0.04	0.05
Building (non-residential)	3.96	4.40	4.84	5.32	5.85	6.44	7.08
3. Miscellaneous							
Car rentals	0.07	0.07	0.07	0.08	0.09	0.10	0.11
Car parking	1.03	1.18	2.94	3.20	3.52	3.87	4.26
Admission tickets	0.24	0.17	0.19	0.21	0.23	0.25	0.28
Other income/ sale of scrap etc.	0.80	0.65	0.68	0.71	0.75	0.78	0.82
Total	10.37	11.52	15.23	17.25	18.94	20.80	22.83

11.2 The growth rates assumed by AAI have been presented in the table below.

Table 31: Growth rates assumed by AAI for non-aeronautical revenue

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions					
Restaurant / snack bars	Bottom up	Bottom up	10%	10%	10%
T.R. stall	Bottom up	Bottom up	10%	10%	10%
Hoarding & display	10%	10%	10%	10%	10%
2. Rent and services					
Land leases	0%	0%	0%	0%	0%
Building (residential)	5%	5%	5%	5%	5%
Building (non-residential)	10%	10%	10%	10%	10%

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
3. Miscellaneous					
Car rentals	10%	10%	10%	10%	10%
Car parking	Bottom up	Bottom up	10%	10%	10%
Admission tickets	10%	10%	10%	10%	10%
Other income/ sale of scrap etc.	5%	5%	5%	5%	5%
Total	32%	13%	10%	10%	10%

B. Authority's examination at Consultation Stage

11.3 The Authority examined the non-aeronautical revenues for FY 2016-17 and FY 2017-18 from the trial balances of the respective years submitted by AAI. There were three instances where revenues from ANS services were included as part of non-aeronautical revenues.

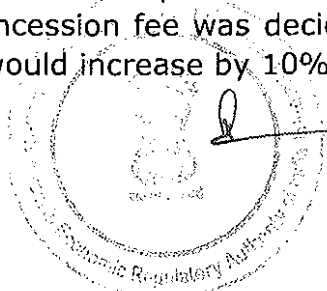
- a) In FY 2017-18, under 'T.R. Stall', the Authority observed that revenue amounting to INR 0.23 lakhs pertaining to ANS services was excluded twice.
- b) In FY 2016-17, under 'Building (residential)', the Authority observed that revenue amounting to INR 0.90 lakhs pertaining to ANS services was included.
- c) In FY 2016-17, under 'Other income/ sale of scrap etc.', the Authority observed that revenue amounting to INR 4.91 lakhs pertaining to ANS services was included.

Because ANS services are considered separate from airport operations, the Authority proposed to exclude these from non-aeronautical revenues. Other than the above three instances, the Authority found the revenue figures to be in line with the trial balances for FY 2017 and FY 2017-18.

11.4 **Car Parking:** The Authority observed that AAI has awarded a new concession agreement with respect to car/ vehicle parking at the airport. The concession was applicable for one year. The concession fee was decided as INR 26,66,666 per month. Further, this would increase by 10% each year.

11.5 **Retail/ Snack Bars:** The Authority observed that with effect from FY 2018-19, AAI has entered into two new concession agreements for retail and snack bars. These new concessions were an extension of the previous retail operations at the airport.

- a) For retail outlets, AAI awarded a concession to set up a branded snack bars at Patna airport. The concession is applicable for five years. The concession fee was decided as INR 9,53,301 per month. Further, this would increase by 10% each year.



b) AAI awarded a concession to set up a fast food facility at Patna airport. The concession is applicable for five years. The concession Fee was decided as INR 6,53,777 per month with an escalation of 10% each year.

11.6 **T.R. Stall:** The Authority observed that, AAI has entered into two concession agreements for T.R. stall during the control period. These are discussed below:

a) AAI awarded a concession to set up a Money Exchange Counter at Patna airport. The concession is applicable for five years. The concession fee was decided as INR 2,25,000 per month with an escalation of 10% each year.

b) AAI awarded a concession to set up a CSIBS facility at Patna Airport. The concession is applicable for seven years. The concession fee was decided as INR 4,20,000 per month with an escalation of 10% each year. However, the Authority observed that this revenue was not included in MYTP. Therefore, the Authority proposed to include this revenue as a part of non-aeronautical revenue under "T.R. Stall".

11.7 The Authority verified the above mentioned concession agreements and found the projections to be in line with the same.

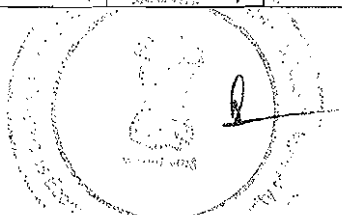
11.8 The Authority observed that the growth rates proposed by AAI in the last year (FY 2022-23) is the same as proposed for the previous 4 years of the control period. As such this assumption does not take into consideration operationalization of the new terminal building in the last year, which is expected to boost the non-aeronautical revenues at the airport. Therefore, the Authority proposed to change the growth rates assumed by AAI in FY 2022-23 as under:

- a) "Trading Concessions", Car Rentals and Car Parking - from 10% to 15%
- b) Land Leases- from 0% to 7.5%
- c) Admission tickets- from 10% to 23%(passenger traffic growth in FY23)
- d) Building(non-residential) from 10% to 20%

11.9 The revised growth rates as per Authority's examination have been presented in the table below.

Table 32: Growth rates in non-aeronautical revenue proposed by the Authority (consultation stage)

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions					
Restaurant / snack bars	Bottom up	Bottom up	10%	10%	15%

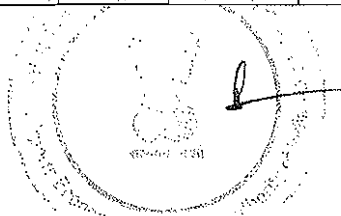


Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
T.R. stall	Bottom up	Bottom up	10%	10%	15%
Hoarding & display	10%	10%	10%	10%	15%
2. Rent and services					
Land leases	0.0%	0.0%	0.0%	0.0%	7.5%
Building (residential)	5%	5%	5%	5%	5%
Building (non-residential)	10%	10%	10%	10%	20%
4. Miscellaneous					
Car rentals	10%	10%	10%	10%	15%
Car parking	Bottom up	Bottom up	10%	10%	15%
Admission tickets	10%	10%	10%	10%	23%
Other income/ sale of scrap etc.	5%	5%	5%	5%	5%
Total	35%	16%	10%	10%	16%

11.10 The revised non-aeronautical revenues as per Authority's examination have been presented in the table below.

Table 33: Non-aeronautical revenues proposed by the Authority (figures in INR crores) (consultation stage)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions							
Restaurant / snack bars	1.35	1.54	2.47	3.24	3.57	3.93	4.51
T.R. stall	1.01	1.13	1.72	2.44	2.68	2.95	3.39
Hoarding & display	1.89	2.35	2.58	2.84	3.13	3.44	3.95
2. Rent and services							
Land leases	-	-	-	-	-	-	-
Building (residential)	0.02	0.04	0.03	-	-	-	-
Building (non-residential)	3.96	4.40	4.84	5.32	5.85	6.44	7.73
4. Miscellaneous							
Car rentals	0.07	0.07	0.07	0.08	0.09	0.10	0.11
Car parking	1.03	1.18	2.94	3.20	3.52	3.87	4.45
Admission tickets	0.24	0.17	0.19	0.21	0.23	0.25	0.31
Other income/ sale of scrap etc.	0.75	0.65	0.68	0.71	0.75	0.78	0.82
Total	10.31	11.52	15.52	18.04	19.81	21.76	25.30



C. Addendum to Consultation Paper

11.11 Regarding non-aeronautical revenues, the Authority received comments from AAI. AAI presented the Authority with a revised car parking policy at Patna Airport. The implications on tariff are proposed to be significantly different from AAI's proposal in MYTP. AAI's comments, and Authority's assessment regarding the same have been discussed in the paragraphs below.

C.1. Comments from AAI

11.12 An amount of INR 0.29 lakh in TR stall has been considered twice, resulting in higher projection of non-aero revenue. The Authority is requested to update the same.

11.13 The Authority has considered projected revenue from car parking at INR 27 lakh per month with 10% annual escalation as was earlier proposed by AAI. There has been a change in AAI's car parking policy. In this new policy, parking fee will be charged only from those vehicles which will enter the designated parking area. Being a city based airport, very few vehicles are expected to park in designated parking area. The existing car parking contract has been discontinued with effect from 9th April 2019. Presently, AAI is managing the car parking by deploying its own manpower. In view of the space constraints and related project construction factors, revised MRLF is proposed as INR 3.83 lakh per month. The Authority is requested to consider new MRLF for projecting revenue from car parking.

C.2. Authority's response to comments by AAI

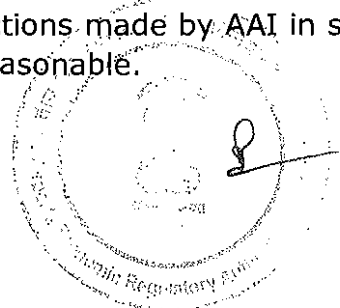
11.14 The Authority proposed to correct the figure of revenue from TR Stall based on the observation pointed out by AAI.

11.15 AAI has submitted to the Authority that the Car Parking Policy has been revised at Patna Airport. Earlier, AAI had entered into a contract with an independent party for car parking at the airport with effect from June 2019. The terms of the contract would lead to revenues of about INR 26.99 lakh per month for AAI. However, the said contract could not materialize, and consequently, under the revised policy, AAI has decided to operate the car parking on its own.

Further, the revised policy has relaxed parking charges, and made pass-through (without parking) free of cost. This has led to reduction in expected revenues, as compared to the now-void contract.

AAI projected revenues from this proposed revised policy. As per the projections provided by AAI, total revenues of INR 11.3 lakh per month could be earned in the first year. This amount is largely in line with and slightly higher than the revenues earned by AAI during the previous years.

The Authority assessed the projections made by AAI in sufficient detail. The Authority found the same to be reasonable.



As per the car parking traffic report submitted by AAI, the revised MRLF has been computed on the basis of expected revenue *less expected costs*. The Authority was of the view that these expected costs are non-aeronautical in nature, and hence must not be deducted while estimating non-aeronautical revenue.

Therefore, the Authority proposed to consider the revenues for the first year as INR 11.3 lakh. The Authority further proposed to assume a growth rate, in line with its previous assumptions (Table 32).

C.3. Authority's revised proposal in Addendum to Consultation Paper

11.16 The revised projections for non-aeronautical revenues, as proposed by the Authority, are shown in the table below.

Table 34: Revised non-aeronautical revenues as per Authority (INR cr.) (Addendum to Consultation Paper)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions							
Restaurant / snack bars	1.35	1.54	2.47	3.24	3.57	3.93	4.51
T.R. stall	1.01	1.13	1.72	2.11	2.32	2.56	2.94
Hoarding & display	1.89	2.35	2.58	2.84	3.13	3.44	3.95
2. Rent and services							
Land leases	-	-	-	-	-	-	-
Building (residential)	0.02	0.04	0.03	-	-	-	-
Building (non-residential)	3.96	4.40	4.84	5.32	5.85	6.44	7.73
4. Miscellaneous							
Car rentals	0.07	0.07	0.07	0.08	0.09	0.10	0.11
Car parking	1.03	1.18	1.36	1.49	1.64	1.80	2.08
Admission tickets	0.24	0.17	0.19	0.21	0.23	0.25	0.32
Other income/ sale of scrap etc.	0.75	0.65	0.68	0.71	0.75	0.78	0.82
Total	10.31	11.52	13.94	16.01	17.58	19.30	22.47

D. Stakeholder comments on Addendum to Consultation Paper

D.1. Comments from FIA

11.17 Increase in non-aeronautical revenues for last year - retail, F&B and advertisement): FIA has submitted that the increase in non-aeronautical revenues in last year of the control period should be more, considering the operationalization of a new terminal building.

11.18 Increase in non-aeronautical revenues - admission tickets: FIA has submitted that the increase in revenue from admission tickets should be linked with growth in passenger traffic estimates.

- 11.19 Clarification in calculation of revenue from new concessions: FIA has requested the Authority for clarification regarding how the revenue from new concessions is being calculated.
- 11.20 Revenue from residential building: FIA has submitted that revenue from residential building is not being considered by the Authority, and the same should be considered.
- 11.21 Revenue from car parking: FIA has requested the Authority to provide reasons behind fall in car parking revenue as compared to the Consultation Paper.
- 11.22 Increase in non-aeronautical revenues - overall: FIA has submitted that the Authority should consider the passenger growth rate as the basis for projecting growth rates in all non-aeronautical revenue streams.

D.2. Response to FIA's comments by AAI

- 11.23 Increase in non-aeronautical revenues for last year - retail, F&B and advertisement): The new terminal building will be operational in October 2022 and the gestation period is usually 8 to 9 months. However, an additional 5% growth in non-aeronautical revenues has been considered in FY 2022-23 (last year of the control period).
- 11.24 Increase in non-aeronautical revenues - admission tickets: AAI has not responded to FIA's comment.
- 11.25 Clarification in calculation of revenue from new concessions: The amount which have been considered in the new concessions are based on the value at which the concessions have been awarded through the tendering process.
- 11.26 Revenue from residential building: AAI has not responded to FIA's comment.
- 11.27 Revenue from car parking: AAI has not responded to FIA's comment.
- 11.28 Increase in non-aeronautical revenues - overall: AAI has not responded to FIA's comment.

D.3. Authority's evaluation of comments by FIA and AAI's responses

- 11.29 Increase in non-aeronautical revenues for last year - retail, F&B and advertisement): FIA has suggested a higher proportional increase in non-aeronautical revenues during the last year of the control period, when a new terminal building is being assumed to be operationalized. In this regard, the Authority expects a minor off-take in terms of non-aeronautical revenues for the last year. Further, the new building is assumed to be operational only for less than half of the last year, and setting up new outlets (retail and food & beverages) would take time. Further, the Authority has already considered an additional 5% growth in non-aeronautical revenues in the last year of the control period.

Considering all the above reasons, the Authority decides to not change the growth rates from the Consultation Paper.

11.30 Increase in non-aeronautical revenues - admission tickets: The Authority accepts FIA's suggestion of higher growth rate in line with passenger growth.

11.31 Clarification in calculation of revenue from new concessions: Clarification regarding the revenue from new concessions has been given in the paragraphs below.

(1) Restaurant / snack bars: AAI has renewed two existing concessions for restaurants.

a. The first is a restaurant whose old MMG was INR 243,760 per month. The renewed MMG has been fixed at INR 953,301 per month. This is made applicable from October 2018. Therefore, the renewed MMG was earned for 6 months in FY 2018-19.

b. The second is a café whose old MMG was INR 216,370 per month. The renewed MMG has been fixed at INR 653,777 per month. This is made applicable from August 2018. Therefore, the renewed MMG was earned for 8 months in FY 2018-19.

The computation of revenue from restaurant / snack bars has been shown in the table below.

Table 35: Revenue from restaurant / snack bars (INR crores)

Particulars	Remarks	Amount
Revenue for FY 2016-17	Actual	1.35
Revenue for FY 2017-18	Actual	1.54
Revenue for FY 2018-19:		
New concession 1	INR 9.53 lakh for 6 months	0.57
Replaced concession 1	INR 2.43 lakh for 6 months	-0.15
New concession 2	INR 6.53 lakh for 8 months	0.52
Replaced concession 2	INR 2.16 lakh for 8 months	-0.17
Increment in old concessions	10% of actual revenue for FY 2017-18	1.70
Total revenue for FY 2018-19		2.47
Revenue for FY 2019-20:		
New concession 1	INR 9.53 lakh for 12 months	1.14
Replaced concession 1	INR 2.43 lakh for 12 months	-0.29
New concession 2	INR 6.53 lakh for 12 months	0.78
Replaced concession 2	INR 2.16 lakh for 12 months	-0.26
Increment in old concessions	10% of actual revenue for FY 2017-18 for 2 years	1.87
Total revenue for FY 2019-20		3.24
Revenue for FY 2020-21	10% increment over revenue for FY 2019-20	3.57
Revenue for FY 2021-22	10% increment over revenue for FY 2020-21	3.93
Revenue for FY 2022-23	15% increment over revenue for FY 2021-22	4.51

- (2) **T.R. Stalls:** AAI has renewed one existing concession for retail stalls. Its old MMG was INR 24,200 per month. The renewed MMG has been fixed at INR 225,000 per month. This is made applicable from July 2018. Therefore, the renewed MMG was earned for 9 months in FY 2018-19.

11.32 Further, as discussed in the Consultation Paper, AAI awarded a new concession to set up a CSIBS facility at Patna Airport. The concession is applicable for seven years. The concession fee was decided as INR 4,20,000 per month with an escalation of 10% each year. This was made applicable from September 2018. Therefore, the revenue was earned for 7 months in FY 2018-19. However, the Authority observed that this revenue was not included in MYTP. Therefore, the Authority proposed to include this revenue as a part of non-aeronautical revenue under T.R. Stalls.

11.33 Computation of revenue from T.R. stalls has been shown in the table below.

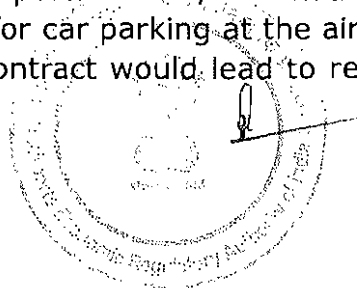
Table 36: Revenue from T.R. Stalls (INR crores)

Particulars	Remarks	Amount (INR cr.)
Revenue for FY 2016-17	Actual	1.01
Revenue for FY 2017-18	Actual	1.13
Revenue for FY 2018-19:		
New concession 1	INR 2.25 lakh for 9 months	0.20
Replaced concession 1	INR 0.24 lakh for 9 months	-0.02
New concession 2	INR 4.20 lakh for 7 months	0.29
Increment in old concessions	10% of actual revenue for FY 2017-18	1.24
Total revenue for FY 2018-19		1.72
Revenue for FY 2019-20:		
New concession 1	INR 2.25 lakh for 12 months	0.27
Replaced concession 1	INR 0.24 lakh for 12 months	-0.03
New concession 2	INR 4.20 lakh for 12 months	0.50
Increment in old concessions	10% of actual revenue for FY 2017-18 for 2 years	1.37
Total revenue for FY 2019-20		2.11
Revenue for FY 2020-21	10% increment over revenue for FY 2019-20	2.33
Revenue for FY 2021-22	10% increment over revenue for FY 2020-21	2.56
Revenue for FY 2022-23	15% increment over revenue for FY 2021-22	2.94

11.34 **Revenue from residential building:** The Authority accepts FIA's suggestion of including residential building revenue.

11.35 **Revenue from car parking:** The Authority has already provided the reasoning behind fall in car parking revenue in sufficient detail. The Authority reiterates the same.

AAI had submitted to the Authority that the Car Parking Policy has been revised at Patna Airport. Earlier, AAI had entered into a contract with an independent party for car parking at the airport with effect from June 2019. The terms of the contract would lead to revenues of about INR 26.99 lakh



per month for AAI. However, the said contract could not materialize, and consequently, under the revised policy, AAI had decided to operate the car parking on its own.

Further, the revised policy has relaxed parking charges, and made pass-through (without parking) free of cost. This has led to reduction in expected revenues, as compared to the now-void contract.

AAI projected revenues from this proposed revised policy. As per the projections provided by AAI, total revenues of INR 11.3 lakh per month could be earned in the first year. This amount is in line with and slightly higher than the revenues earned by AAI during the previous years.

The Authority assessed the projections made by AAI in sufficient detail. The Authority had found the same to be reasonable.

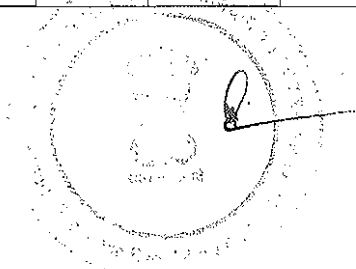
11.36 Increase in non-aeronautical revenues - overall: Growth rates for all revenue streams have been computed separately and the reasons for each have been explained in sufficient detail. The Authority does not consider it prudent to increase all revenue streams with passenger growth rate.

D.4. Authority's final evaluation

11.37 Based on Authority's evaluation of stakeholder comments, the non-aeronautical revenues considered by the Authority have been given in the table below.

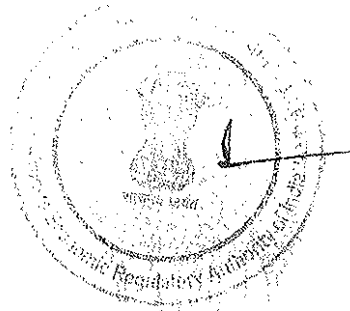
Table 37: Non-aeronautical revenues as per Authority (final) (INR crores)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1. Trading concessions							
Restaurant / snack bars	1.35	1.54	2.47	3.24	3.57	3.93	4.51
T.R. stall	1.01	1.13	1.72	2.11	2.32	2.56	2.94
Hoarding & display	1.89	2.35	2.58	2.84	3.13	3.44	3.95
2. Rent and services							
Land leases	-	-	-	-	-	-	-
Building (residential)	0.02	0.04	0.03	0.03	0.03	0.03	0.03
Building (non-residential)	3.96	4.40	4.84	5.32	5.85	6.44	7.73
4. Miscellaneous							
Car rentals	0.07	0.07	0.07	0.08	0.09	0.10	0.11
Car parking	1.03	1.18	1.36	1.49	1.64	1.80	2.08
Admission tickets	0.24	0.17	0.22	0.29	0.33	0.38	0.48
Other income/ sale of scrap etc.	0.75	0.65	0.68	0.71	0.75	0.78	0.82
Total	10.31	11.52	13.97	16.12	17.71	19.46	22.66



Decision No. 8. Regarding non-aeronautical revenues

- (i) The Authority decides to consider non-aeronautical revenues for the 1st control period for Patna airport in accordance with Table 37.



Secretary
Civil Aviation
Regulatory Authority
Patna

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

12. Operation and maintenance expenditure

A. AAI's initial submissions

12.1 Operation and Maintenance (O&M) expenditure submitted by AAI is segregated into the following:

- a) Payroll expenses,
- b) Admin and general expenditure,
- c) Repair and maintenance expenditure,
- d) Utilities and outsourcing expenditure, and
- e) Other outflows, i.e. collection charges on UDF

12.2 The expenses related to AAICLAS, ANS and CISF security have not been considered by AAI.

12.3 AAI has segregated the expenses into aeronautical expenses, non-aeronautical expenses, and common expenses. The common expenses have been further segregated into aeronautical and non-aeronautical on the basis of relevant ratios.

12.4 AAI submitted that the allocation of CHQ/RHQ expenses among individual airports has been done on the basis of revenue.

12.5 The summary of aeronautical expenses proposed by AAI for the 1st control period has been presented in the table below:

Table 38: Operation and Maintenance (O&M) expenditure (in INR crore) as per AAI

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Payroll expenses - non CHQ/RHQ	10.75	14.12	17.16	18.43	19.72	21.10	24.68
Payroll expenses - CHQ/RHQ	2.37	2.49	3.01	3.22	3.44	3.68	4.31
Administration and General expenses - non CHQ/RHQ	1.73	3.06	2.46	2.68	2.93	3.20	3.59
Administration and General expenses - CHQ/RHQ	18.61	19.54	20.52	21.55	22.62	23.76	24.94
Repairs and maintenance	2.96	4.60	4.17	9.77	10.22	10.73	21.83
Utilities and outsourcing expenses	1.50	1.62	2.17	2.20	2.24	2.28	2.51
Other outflows - Collection Charges on UDF	0.14	0.22	0.25	0.29	0.34	0.39	0.44
Total	38.07	45.65	49.74	58.13	61.51	65.13	82.31

12.6 The summary of growth rates assumed by AAI for the operation and maintenance expenses have been presented in the table below:

Table 39: Growth rates in O&M as per AAI

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Payroll expenses - non CHQ/RHQ	22%	7%	7%	7%	17%
Payroll expenses - CHQ/RHQ	21%	7%	7%	7%	17%
Administration and General expenses - non CHQ/RHQ	-20%	9%	9%	9%	12%
Administration and General expenses - CHQ/RHQ	5%	5%	5%	5%	5%
Repairs and maintenance	-9%	134%	5%	5%	103%
Utilities and outsourcing expenses	34%	2%	2%	2%	10%
Other outflows - Collection Charges on UDF	15%	15%	15%	15%	15%
Total	9%	17%	6%	6%	26%

12.7 Further, summary of allocation of expenses between aeronautical and non-aeronautical as proposed by AAI is given in the table below:

Table 40: Allocation of O&M expenses as per AAI in 2017-18

Particulars	Aeronautical	Non-aeronautical
Payroll expenses - non CHQ/RHQ	97%	3%
Payroll expenses - CHQ/RHQ	95%	5%
Administration and General expenses - non CHQ/RHQ	99%	1%
Administration and General expenses - CHQ/RHQ	95%	5%
Repairs and maintenance	95%	5%
Utilities and outsourcing expenses	90%	10%
Other outflows - Collection Charges on UDF	100%	0%

B. Authority's examination at Consultation Stage

12.8 The Authority examined the trial balances for FY 2017 and FY 2018 to ensure that the actual figures considered by AAI for these two years are accurate. In all instances except the following, the numbers were found to be consistent with the trial balances.

- For FY 2017, an expense included in Travelling expenses under 'Administration and General Expenses' amounting to INR 0.05 lakh pertaining to Cargo was deducted twice while calculating aeronautical expense. The Authority proposed to revise the same.

12.9 The Authority observed that INR 10.54 crores (INR 7.87 crores + 2.67 crores) had been added to repairs and maintenance expense in FY 2022-23. However, the Authority reviewed the documents pertaining to this expenditure and discovered that the correct value for electrical installation with respect to the MET building is 2.27 crores which changes the total value of the MET building to INR 10.14 crores (INR 7.87 crores + 2.27 crores). The Authority proposed to change the same. Moreover, as per the narration given in the MYTP, these expenses pertain to construction of MET building, which will be shifted to a different location due to the construction of the new terminal building. This makes it a capital expenditure, and not a revenue expenditure. The Authority proposed to shift this amount from Operations and Maintenance Expense to additions made to RAB.

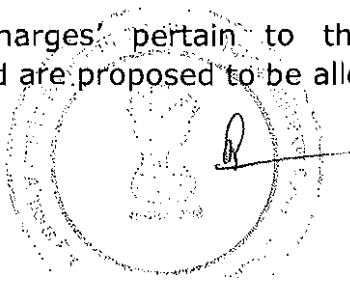
12.10 The Authority examined the allocation of expenses between aeronautical and non-aeronautical. The Authority compared the allocation proposed by AAI to its recent orders for other AAI airports. A summary of these has been presented in the table below:

Table 41: Comparison of allocation of O&M expenses with other AAI airports

Expense category	Patna	Kolkata	Jaipur	Trivandrum
Payroll expenses - non CHQ/RHQ	97%	88%	94%	95%
Payroll expenses - CHQ/RHQ	95%	88%	95%	95%
Administration and General expenses - non CHQ/RHQ	99%	96%	88%	94%
Administration and General expenses - CHQ/RHQ	95%	85%	90%	90%
Repairs and maintenance	95%	89%	93%	97%
Utilities and outsourcing expenses	90%	91%	93%	98%
Other outflows - Collection Charges on UDF	100%	93%	100%	100%

12.11 The Authority observed that 99.44% of the Administration and General expenses - non CHQ/RHQ were allocated to aeronautical expenses. To ensure that these expenses are allocated between aeronautical and non-aeronautical in an appropriate manner, the Authority examined them in detail. These expenses comprise various other sub-expenses. The Authority made the following observations for these sub-expenses:

- 'Upkeep expenses' pertain to the terminal building, and hence are proposed to be allocated in terminal area ratio.
- 'Travelling expenses' pertain to the employees, and hence are proposed to be allocated as per employee ratio. However, AAI informed the Authority that that no non-aeronautical employees travelled or incurred any travelling expenses therefore, all expenses have been allocated to aeronautical expenses.
- 'Telephone Charges' pertain to the telephones used by the employees and are proposed to be allocated as per employee ratio..



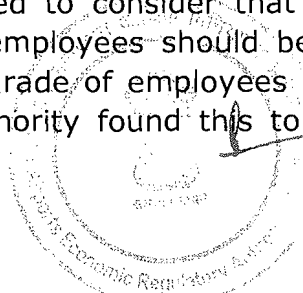
Refer the chapter about allocation of asset for details of these ratios. After incorporating these changes, the overall allocation of administration and general expenses (non-CHQ/RHQ) is proposed to be revised to 96.3%.

- 12.12 The Authority observed that AAI has allocated 94.8% of Repairs and Maintenance expenses to aeronautical expenses. However, the Authority is of the opinion that the allocation should be done based on the RAB allocation as repairs and maintenance is a function of its assets. The Authority therefore, proposed to allocate 96% of repairs and maintenance to aeronautical expenses as per Table 11.
- 12.13 The Authority verified the workings provided by AAI for allocation of payroll expenses (non-CHQ/RHQ) and Utilities and outsourcing expenses. On the basis of its verification, the Authority accepts the allocation of payroll expenses as proposed by AAI.
- 12.14 The Authority observed that the payroll expenses - CHQ/RHQ and administration and general expenses - CHQ/RHQ were allocated to aeronautical expenses at 95%. The Authority found it to be appropriate based on the Authority's decision in other AAI airports.
- 12.15 The Authority proposed the following allocation of O&M expenses into aeronautical and non-aeronautical.

Table 42: Allocation of O&M expenses as per the Authority (consultation stage)

Particulars	Aeronautical	Non-aeronautical
Payroll expenses - non CHQ/RHQ	97%	3%
Payroll expenses - CHQ/RHQ	95%	5%
Administration and General expenses - non CHQ/RHQ	96%	4%
Administration and General expenses - CHQ/RHQ	95%	5%
Repairs and maintenance	96%	4%
Utilities and outsourcing expenses	90%	10%
Other outflows - Collection Charges on UDF	100%	0%

- 12.16 The Authority examined the growth rates considered by AAI. For payroll expenses, AAI has considered an overall growth rate of approximately 21% for FY 2019. This was on account of revised pay commission, which is applicable to employees of AAI. Upon examination and consultation with AAI, it was found that the revised pay commission was implemented by AAI in FY 2018 for executive grade employees. The implementation for non-executive grade employees is proposed to be done in FY 2019. Therefore, the Authority proposed to consider that the growth in overall payout of nonexecutive grade employees should be similar to the actual growth in payout of executive grade of employees in FY 2018 based on revised pay commission. The Authority found this to be an increment of 37.16% for



non-executive grade employees. Based on the proportion of employees in the two grades, the Authority has found the overall growth of 21% in FY 2019 to be reasonable.

12.17 AAI considered a growth rate of 7% in payroll expenses beyond FY 2019. This rate is consistent with other AAI airports and the Authority considered it to be reasonable. AAI has also considered a growth rate of 17% in payroll expenses in FY 2022-23 due to operations of new terminal building. The Authority found the same to be appropriate.

12.18 AAI considered a 40% increase in electricity charges in FY 2018-19 due to commencement of 24-hour operations (earlier 19-hours) at the airport with effect from 25/03/2018. Considering the fact that the additional five hours will be during the night, the increase of 40% was found to be reasonable. The Authority further verified the consumption of electricity from invoices presented by AAI. AAI has also considered an additional increase of 10% in electricity charges in FY 2022-23 due to operations of new terminal building. The Authority found the same to be appropriate.

12.19 AAI has proposed expenses pertaining to re-carpeting of runway at the in FY 2019-20 of INR 25.91 crores. Further, the expense has been deferred equally in five years, four of which fall in the 1st control period. The Authority evaluated the cost computations and found the same to be reasonable.

12.20 The Authority examined actual growth trend of expenses for the past few years at the airport. Further, the Authority examined a few contractual agreements with vendors on a sample basis to understand the escalation dynamics. On the basis of these checks, the Authority found the considered growth rates to be reasonable.

12.21 For other outflows, i.e., collection charges on UDF, AAI considered the growth rate to be the same as that of ATM traffic. The Authority found the same to be a reasonable driver.

12.22 Based on above considerations, the Authority proposed the following growth rates in operation and maintenance expenses.

Table 43: Growth rates in O&M expenses considered by the Authority (consultation stage)

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Payroll expenses - non CHQ/RHQ	22%	7%	7%	7%	17%
Payroll expenses - CHQ/RHQ	21%	7%	7%	7%	17%
Administration and General expenses - non CHQ/RHQ	-21%	9%	9%	9%	12%
Administration and General expenses - CHQ/RHQ	-5%	5%	5%	5%	5%
Repairs and maintenance	-8%	132%	5%	5%	5%

Particulars	Control period				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Utilities and outsourcing expenses	34%	2%	2%	2%	10%
Other outflows - Collection Charges on UDF	23%	23%	15%	15%	23%
Total	9%	17%	6%	6%	10%

12.23 After incorporating the above observations by the Authority, the revised O&M expenses have been presented in the table below.

Table 44: Operation and maintenance (O&M) expenses as revised by the Authority (INR crores) (consultation stage)

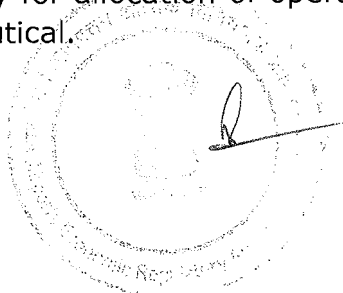
Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Payroll expenses - non CHQ/RHQ	10.75	14.12	17.16	18.43	19.72	21.10	24.68
Payroll expenses - CHQ/RHQ	2.37	2.49	3.01	3.22	3.44	3.68	4.31
Administration and General expenses - non CHQ/RHQ	1.67	2.97	2.35	2.56	2.80	3.05	3.42
Administration and General expenses - CHQ/RHQ	18.61	19.54	20.52	21.55	22.62	23.76	24.94
Repairs and maintenance	2.96	4.60	4.23	9.84	10.30	10.81	11.38
Utilities and outsourcing expenses	1.50	1.62	2.17	2.20	2.24	2.28	2.51
Other outflows - Collection Charges on UDF	0.14	0.22	0.29	0.38	0.43	0.50	0.64
Total	38.01	45.56	49.74	58.17	61.55	65.18	71.88

C. Stakeholder Comments

C.1. Comments from FIA

12.24 **Consumption of electricity due to additional operational hours:** FIA has submitted that for increase in operational hours from 19 to 24 hours (about 20%), the consumption has been assumed to increase by 40%. FIA has requested that the increase in consumption be proportional to the number of hours of increase.

12.25 **Allocation of expenses:** FIA has submitted that the Authority should conduct an independent study for allocation of operating expenses between aeronautical and non-aeronautical.



12.1. FIA has further submitted that the allocation ratio should be 80%, on the basis of Consultation Paper No. 5/2014-15 regarding normative approach for allocation of expenses.

C.2. Responses to FIA's comments by AAI

12.26 **Consumption of electricity due to additional operational hours:** The consumption of electricity during night time is on higher side comparative to day time.

12.27 **Allocation of expenses:** AAI did not respond to FIA's comment.

C.3. Authority's evaluation of FIA's comments and responses by AAI

12.28 **Consumption of electricity due to additional operational hours:** The Authority has re-examined the issue based on submission from FIA. The Authority decides to reduce the increase from 40% to 30% and decides to true-up this expense in the 2nd control period based on actual consumption figures in the 1st control period.

12.29 **Allocation of expenses:** FIA has suggested that the Authority should conduct an independent study to determine allocation of expenses. The Authority is of the view that an independent study on allocation of expenses may be conducted depending upon the size, scale, and overall complexity of the airport operations. The Authority exercised its own diligence and sought necessary clarifications from AAI to form its view on the admissible part of the overall expenses. For the current Control Period, the Authority is not persuaded to conduct an independent study.

FIA has further suggested a ballpark ratio of 80% for allocation of expenses. In the absence of any reasonable justification to do so, the Authority decides to not consider this suggestion.

Due to above reasons, the Authority decides to not change the allocation ratios of operating and maintenance expenses.

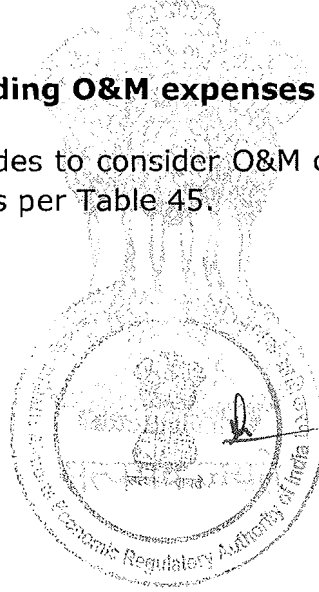
Table 45: Operation and maintenance (O&M) expenses as revised by the Authority (INR crores) (final)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Payroll expenses - non CHQ/RHQ	10.75	14.12	17.16	18.43	19.72	21.10	24.68
Payroll expenses - CHQ/RHQ	2.37	2.49	3.01	3.22	3.44	3.68	4.31
Administration and General expenses - non CHQ/RHQ	1.67	2.97	2.35	2.56	2.80	3.05	3.42
Administration and General expenses - CHQ/RHQ	18.61	19.54	20.52	21.55	22.62	23.76	24.94
Repairs and maintenance	2.96	4.60	4.23	9.84	10.30	10.81	11.38

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Utilities and outsourcing expenses	1.50	1.62	2.04	2.07	2.11	2.15	2.36
Other outflows - Collection Charges on UDF	0.14	0.22	0.29	0.38	0.43	0.50	0.64
Total	38.01	45.56	49.60	58.03	61.41	65.04	71.72

Decision No. 9. Regarding O&M expenses

- (i) The Authority decides to consider O&M expenses for the 1st Control Period for Patna Airport as per Table 45.



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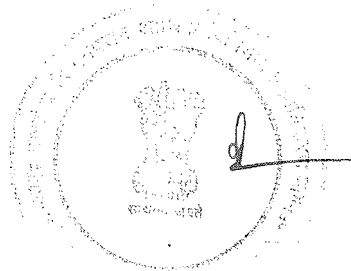
13. Taxation

A. AAI's initial submissions

13.1 To compute depreciation for tax purposes, AAI has used the depreciation rates in accordance with the following table:

Table 46: Depreciation rates for tax purposes as per AAI

Asset category	IT Depreciation rate - up to FY 18	IT Depreciation rate - from FY 19
Freehold Land	0%	0%
Runways, Aprons and Taxiways	15%	10%
Road, Bridges & Culverts	10%	10%
Building - Terminal	10%	10%
Building - Residential	100%	100%
Boundary Wall - Operational	5%	5%
Boundary Wall - Residential	10%	15%
Other Buildings	5%	5%
Computer - End user	60%	40%
Computer - Servers and networks	60%	40%
Intangible Assets - Software	60%	40%
Plant & Machinery	15%	15%
Tools & Equipment	15%	15%
Office Furniture	10%	10%
Furniture & Fixtures: Other Than Trolley	10%	10%
Furniture & Fixtures: Trolley	15%	15%
Vehicles	10%	10%
Vehicles - car and jeep	15%	15%
Electrical Installations	15%	15%
Other Office Equipment	15%	15%
X Ray Baggage System	0%	0%
CFT/Fire Fighting Equipment	15%	10%



13.2 The tax calculation as submitted by AAI has been presented in the table below:

Table 47: Taxation as per AAI (figures in INR crores)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Aero revenue with revised rates	21.00	31.66	37.42	94.02	108.81	125.93	145.77
O&M expenses	38.07	45.65	49.74	58.13	61.51	65.13	82.31
Depreciation	1.85	2.14	4.08	9.27	12.38	11.13	52.42
Profit before tax	-18.92	-16.14	-16.40	26.61	34.91	49.67	11.04
Tax rate (%)	34.07%	34.07%	34.94%	34.94%	34.94%	34.94%	34.94%
Taxes	-	-	-	9.30	12.20	17.36	3.86

B. Authority's examination at Consultation Stage

13.3 The Authority observed that AAI had proposed 01/01/2019 as the implementation date of the new tariffs. The Authority had proposed to revise the same to 01/07/2019. This had an impact on the projected aeronautical revenues, leading to difference in tax computation.

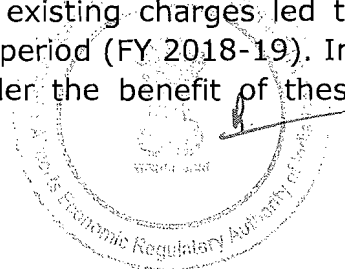
13.4 The Authority examined the depreciation rates considered by AAI and compared them with the rates prescribed in the Income Tax Act, 1961. The Authority observed that in case of one asset category, the depreciation rates proposed by AAI were not in line with the Income Tax Act, 1961. These have been presented in the table below.

Table 48: Difference in depreciation rates for tax purposes

Asset category	Up to FY 2018	
	Rate used by AAI	Rate as per Income Tax Act, 1961
Boundary wall-operational	15%	10%

13.5 The Authority observed that depreciation rates proposed by AAI for FY 2020-21, FY 2021-22 and FY 2022-23 were the rates applicable up to FY 2017-18. The Authority proposed to use the depreciation rates relevant for FY 2018-19 onwards as presented in Table 46.

13.6 The Authority observed that the tax treatment of losses by AAI is not appropriate. AAI did not consider carry-forward of losses and their set -off in subsequent years of profit. In the period between FY 2016-17 and FY 2017-18, existing airport charges were levied. Further, till the first month of the second year of the control period, i.e. FY 2019-20, existing charges are being levied until the implementation of revised charges. The Authority observed that the existing charges led to aeronautical losses in the first year of the control period (FY 2018-19). In its computation of tax expenses, AAI did not consider the benefit of these losses on taxable aeronautical

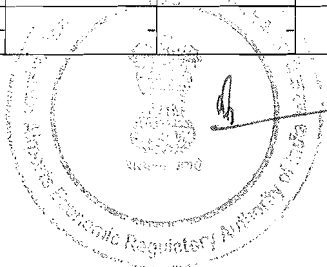


profits of subsequent years, leading to increase in overall projected tax expenses. The Authority proposed to consider the carry forward and set-off of these losses.

- 13.7 Furthermore, the Authority considered Patna Airport on standalone basis, as it has done for other AAI airports as well. Treatment on standalone basis for computation of aeronautical taxes as a building block for determination of ARR means computing tax based on levels of profitability of these airports individually and not getting clouded by levels of profitability at the corporate or group level.
- 13.8 The Authority observed that the tax rate for FY 17 and FY 18 has been taken as 34.068%. The Authority proposed to revise it to 34.608%. This percentage is based on 30% basic tax, plus 12% surcharge plus 4% cess.
- 13.9 The projected aeronautical revenues for the control period are based on the charges proposed by AAI as part of its initial submission of Multi-Year Tariff Proposal.
- 13.10 The Authority observed that two revenue streams - land lease income from oil companies, and lease income from ground handling service providers were not included in aeronautical revenues while computing aeronautical taxes. The Authority proposed to add the same in aeronautical revenues for calculating tax.
- 13.11 The Authority proposed to consider the O&M expenses in accordance with Table 44 for computation of tax expense.
- 13.12 The Authority proposed to consider the capital expenditures for computation of depreciation in accordance with Table 19.
- 13.13 After considering all the above observations, the Authority proposed the following tax expense during the 1st control period.

Table 49: Tax expense as per Authority (figures in INR crores) (consultation stage)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Aero revenue with proposed rates	22.49	33.53	43.90	89.93	109.58	129.12	162.19
O&M expenses	38.01	45.56	49.74	58.17	61.55	65.18	71.88
Depreciation	1.84	2.11	3.89	16.49	17.73	7.68	42.53
Profit before tax	-17.36	-14.13	-9.73	15.26	30.30	56.27	47.78
Set-off of loss	-	-	-	15.26	25.96	-	-
Profit before tax after set-off of loss	-17.36	-14.13	-9.73	-	4.34	56.27	47.78
Tax rate (%)	34.6%	34.6%	34.9%	34.9%	34.9%	34.9%	34.9%
Taxes	-	-	-	-	1.52	19.66	16.70



C. Stakeholder Comments

C.1. Comments from FIA

13.14 **Carry forward of losses prior to regulatory period:** FIA has submitted that losses prior to the regulatory period (i.e. before FY 2016-17) should also be considered for set-off from profits of subsequent years.

C.2. Responses to FIA's comment by AAI

13.15 Carry forward of losses prior to regulatory period: AAI did not respond to FIA's comment.

C.3. Authority's evaluation of FIA's comments and responses by AAI

13.16 **Carry forward of losses prior to regulatory period:** The Authority has carefully examined the comments made by FIA regarding tax expense. FIA has suggested that aeronautical losses from earlier years (before FY 2016-17) should be considered for carry forward and set off from aeronautical profits during the control period.

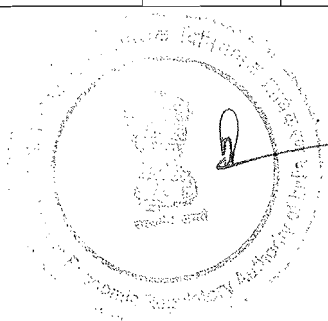
The Authority does not agree with this view presented by FIA. Before FY 2016-17, the airport was not under the regulatory ambit of the Authority. Therefore, the Authority does not intend to compute the regulatory building blocks for years prior to FY 2016-17.

C.4. Authority's final evaluation

13.17 The final tax expense considered by the Authority is shown in the table below.

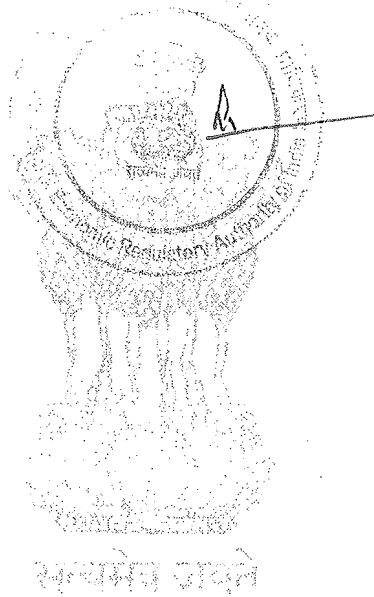
Table 50: Tax expense considered by the Authority – INR crores (final)

Particulars	Pre control regulatory period		Control period				
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Aero revenue with proposed rates	22.52	33.57	42.60	68.84	108.79	127.92	160.65
O&M expenses	38.01	45.56	49.60	58.03	61.41	65.04	71.72
Depreciation	1.84	2.11	3.94	13.75	14.58	6.98	41.89
Profit before tax	-17.32	-14.10	-10.93	-2.94	32.79	55.90	47.04
Set-off of loss	-	-	-	-	32.79	12.51	-
Profit before tax after set-off of loss	-17.32	-14.10	-10.93	-2.94	-	43.39	47.04
Tax rate (%)	34.6%	34.6%	34.9%	34.9%	34.9%	34.9%	34.9%
Taxes	-	-	-	-	-	15.16	16.44



Decision No. 10. Regarding tax expense

- (i) The Authority decides to consider tax expense for the 1st Control Period for Patna Airport as per Table 50.



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14. True up

A. AAI's initial submissions

14.1. The Authority considered the Aggregate Revenue Requirement, or ARR, for the first two years, i.e. FY 2016-17 and FY 2017-18. This ARR was compared with the actual aeronautical revenues earned by AAI. Any shortfall (or surplus) would be added (true-up) to the ARR for the five-year control period.

AAI submitted a computation of true up based on actual figures of FY 2016-17 and FY 2017-18.

14.2. The shortfall has been compounded up to 1st April, 2019. The true-up computation proposed by AAI has been presented in the table below.

Table 51: True up calculation as per AAI (figures in INR crores)

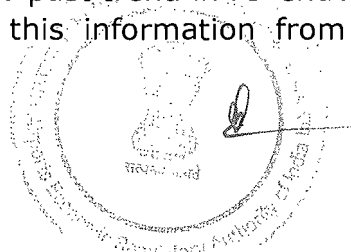
Particulars	FY 2017	FY 2018	FY 2019
ARR(1)	39.71	47.33	
Actual aero revenues(2)	22.49	33.44	
Shortfall(1-2)	17.22	13.89	
Future value factor at 14% FRoR	1.14	1.30	
Future value of shortfall at 14%	22.38	15.83	38.22

B. Authority's examination

14.3. The Authority observed that the cargo operations were with AAI for FY 2016-17 before being handed over to AAICLAS from FY 2017-18 onwards. The Authority had accordingly included the ARR and revenue from cargo operations in its calculation of true-up for FY 2016-17 and outlined its approach below:

14.4. The Authority sought from AAI the agreement between AAICLAS and AAI for such details in terms of revenue share / other nature of payments to be made by AAICLAS to AAI in lieu of transfer of cargo business. AAI confirmed that the agreement is a work in progress, and as of now, there are no payments exchanged between the two entities. The Authority was of the view that an arms-length business transaction would involve monies to be paid by AAICLAS to AAI in lieu of transfer of business and assets thereof. Therefore, the Authority decided to consider notional revenue from AAICLAS to be included in projected revenue for AAI at Patna Airport. The Authority will true this up once actual details are shared by AAI at the time of determination of aeronautical tariff for Patna Airport for the next Control Period.

14.5. To estimate this notional revenue from AAICLAS to AAI for Patna Airport, the Authority considered the past trend in revenue from cargo operations at Patna Airport and sought this information from AAI. AAI informed that



revenue from cargo operations accrued to AAICLAS from FY 2017-18 onwards. Revenue from cargo operations were as follows:

Table 52: Revenue from cargo operations at Patna Airport (in INR crores)

	FY 2016*	FY 2017*	FY 2018*
Cargo Revenue (INR crores)	0.12	0.43	0.31
CAGR			62%

* - Revenue Values as received from AAI

14.6. The Authority considered the CAGR of 62% as calculated in the above table as the estimated growth in revenue from cargo operations at Patna airport and considered 30% of this estimated revenue as the notional revenue from AAICLAS to AAI. The computation of this has been presented below:

Table 53: Notional revenue from AAICLAS (in INR crores) (consultation stage)

Notional revenue from AAICLAS	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Estimated revenue from cargo operations (INR crores)	0.31	0.50	0.82	1.33	2.15	3.48
Notional revenue from AAICLAS to AAI (@ 30%)	0.09	0.15	0.25	0.40	0.64	1.05

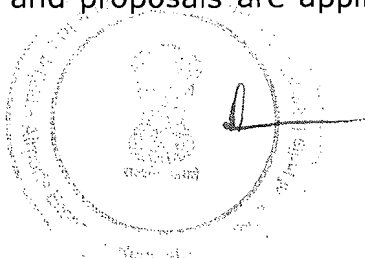
14.7. The Authority decided to treat the above notional revenue as aeronautical revenue.

14.8. The Authority observed that management of cargo operations was transferred to AAICLAS from FY 2017-18. Because for FY 2016-17, these operations were still under AAI, ARR for cargo operations for FY 2016-17 has been calculated separately and added to its total ARR. The calculation of ARR for cargo operations has been presented in the table below.

Table 54: Computation of ARR for Cargo Operations (in INR crores)

Cargo ARR Calculations	FY 2016-17
Average RAB (INR crores)	0.01
Fair Rate of Return	14%
Return on average RAB (INR crores)	0.001
O&M expenses (INR crores)	0.14
Depreciation (INR crores)	0.001
Tax expense (INR crores)	0.10
ARR (INR crores)	0.24

14.9. The Authority proposed to revise the true-up computation on the basis of its proposals of various regulatory building blocks discussed in this paper, as those observations and proposals are applicable for these two years as



well. Accordingly, the Authority's computation of true-up is presented in the table below.

Table 55: True up calculation as per the Authority (figures in INR crores) (consultation stage)

Particulars	FY 2017	FY 2018	FY 2019
ARR(1)	39.84	47.15	
Actual aero revenues(2)	22.91	33.53	
Shortfall(1-2)	16.93	13.62	
Future value factor at 14% FRoR	1.14	1.30	
Future value of shortfall at 14%	22.00	15.52	37.52

C. Addendum to Consultation Paper

C.1. Comments from AAI

14.10. AAI commented that while projecting revenue for FY 2018-19, an amount of INR 6.25 lakh in FY 2017-18 pertaining to prior period income was wrongly considered for projecting future revenue.

14.11. AAI commented on cargo revenue projections done by the Authority. The Authority had considered 62% growth for calculating future projections of cargo revenue considering CAGR for past 2 years. AAI has requested the Authority to consider CAGR of past 5 years for calculating future projection of cargo revenue.

14.12. Cargo revenue for last 5 years are as under (INR in crores)

FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
0.16	0.21	0.17	0.12	0.43	0.31

C.2. Authority's evaluation of AAI's comments

14.13. Regarding AAI's comment on aeronautical revenue projections, the Authority noted AAI's observation and accordingly adjusted the computations.

14.14. Regarding AAI's comment on cargo revenue projections, the Authority previously had received data for only two years. AAI has now submitted data for five years for a better assessment of past trends. The Authority was inclined to consider a longer past trend and has now considered CAGR of five years, in line with the revised proposal by AAI.

D. Authority's final evaluation

14.15. After considering all comments from stakeholders and Authority's evaluation of the same, the final true-up computation has been shown in the table below.

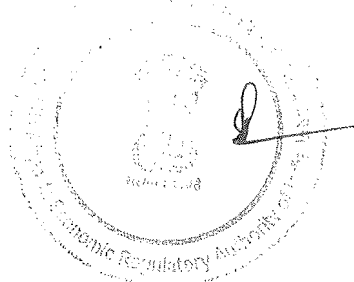
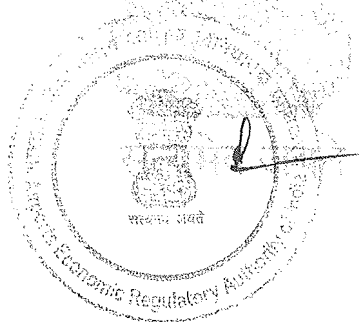


Table 56: True-up computation as per Authority (final) – INR crores

Particulars	FY 2017	FY 2018	FY 2019
ARR(1)	39.84	47.15	
Actual aero revenues(2)	22.95	33.57	
Shortfall(1-2)	16.89	13.58	
Future value factor at 14% FRoR	1.14	1.30	
Future value of shortfall at 14%	21.95	15.48	37.43

Decision No. 11. Regarding true-up

- (i) The Authority decides to consider the true up calculations for the 1st Control Period for Patna Airport as per Table 56.



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15. Aggregate Revenue Requirement for the 1st control period

A. AAI's initial submissions

15.1 AAI had submitted Aggregate Revenue Requirement (ARR) and yield per passenger (Y) for the 1st control period as per the regulatory building blocks discussed.

15.2 All cash flows are assumed to occur at the end of the year. Further, all cash flows are discounted to 1st April, 2019.

15.3 The summary of ARR and Yield has been presented in the table below.

Table 57: ARR and Yield as per AAI

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Average RAB (INR crores)	30.43	91.95	138.28	129.65	531.25
Fair Rate of Return	0.14	0.14	0.14	0.14	0.14
Return on average RAB (INR crores)	4.26	12.87	19.36	18.15	74.38
O&M expenses (INR crores)	49.74	58.13	61.51	65.13	82.31
Depreciation (INR crores)	3.70	6.54	8.85	8.41	34.14
Tax expense (INR crores)	0.00	9.30	12.20	17.36	3.86
Less: 30% NAR (INR crores)	-4.57	-5.18	-5.68	-6.24	-6.85
ARR per year (INR crores)	53.14	81.68	96.23	102.81	187.83
Add: True up	38.22				
PV of ARR based @14% (INR crores)	91.35	71.65	74.05	69.39	111.21
Sum Present value of ARR (INR cr.)	417.65				
Total traffic (million passengers)	24.12				
Yield per passenger (Y) (INR)	173.13				

B. Authority's examination at Consultation Stage

15.4 The Authority had computed ARR as per its evaluation of each building block. The ARR computed by the Authority at consultation stage is shown in the table below.

Table 58: ARR and Yield as per Authority (Consultation stage)

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Average RAB (INR crores)	28.55	79.71	115.38	103.55	436.69
Fair Rate of Return	0.14	0.14	0.14	0.14	0.14
Return on average RAB (INR crores)	4.00	11.16	16.15	14.50	61.14
O&M expenses (INR crores)	49.74	58.17	61.55	65.18	71.88
Depreciation (INR crores)	3.63	8.03	11.95	11.71	28.14

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Tax expense (INR crores)	0.00	0.00	1.52	19.66	16.70
Less: 30% NAR (INR crores)	4.66	5.41	5.94	6.53	7.59
ARR per year (INR crores)	52.71	71.94	85.23	104.53	170.27
Add: True up	37.52				
PV of ARR based @14% (INR crores)	90.23	63.11	65.58	70.55	100.81
Sum Present value of ARR (INR cr.)	390.28				
Total traffic (million passengers)	31.50				
Yield per passenger (Y) (INR)	123.91				

C. Addendum to Consultation Paper

15.5 After considering all stakeholder comments, and Authority's evaluation of the same, the revised ARR proposed by the Authority in Addendum to Consultation Paper has been given in the table below.

Table 59: ARR and Yield as per Authority (Addendum to Consultation Paper)

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Average RAB (INR crores)	29.01	71.06	99.36	91.93	425.35
Fair Rate of Return	14%	14%	14%	14%	11.54%
Return on average RAB (INR crores)	4.06	9.95	13.91	12.87	49.06
O&M expenses (INR crores)	49.73	58.16	61.55	65.17	71.87
Depreciation (INR crores)	3.65	5.85	7.56	7.32	27.64
Tax expense (INR crores)	-	-	-	15.36	15.93
Less: 30% NAR (INR crores)	-4.18	-4.80	-5.27	-5.79	-6.74
ARR per year (INR crores)	53.26	69.15	77.74	94.93	157.75
Add: True up	37.43				
PV of ARR based @14% (INR crores)	90.69	60.66	59.82	64.08	93.40
Sum Present value of ARR (INR cr.)	368.65				
Total traffic (million passengers)	30.92				
Yield per passenger (Y) (INR)	119.23				

D. Authority's final computation of ARR

15.6 After considering all comments from stakeholders on Addendum to Consultation Paper, and Authority's evaluation, the ARR computes the ARR as per the table below.

Table 60: Computation of ARR and yield as per Authority (final)

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Average RAB (INR crores)	29.01	71.06	99.36	91.93	425.35
Fair Rate of Return	14%	14%	14%	14%	11.54%
Return on average RAB (INR crores)	4.06	9.95	13.91	12.87	49.06
O&M expenses (INR crores)	49.60	58.03	61.41	65.04	71.72

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Depreciation (INR crores)	3.65	5.85	7.56	7.32	27.64
Tax expense (INR crores)	-	-	-	15.16	16.44
Less: 30% NAR (INR crores)	-4.19	-4.84	-5.31	-5.84	-6.80
ARR per year (INR crores)	53.12	68.99	77.57	94.55	158.06
Add: True up	37.43				
PV of ARR based @14% (INR crores)	90.55	60.52	59.69	63.82	93.58
Sum Present value of ARR (INR cr.)	368.15				
Total traffic (million passengers)	30.92				
Yield per passenger (Y) (INR)	119.07				

15.7 It is to be noted that the above yield is based on total passengers expected at the airport, i.e., departing as well as arriving. The yield per departing passenger in similar terms would be twice of this yield as per the above table, i.e. INR 238.15.

Decision No. 12. Regarding Aggregate Revenue Requirement

- (i) The Authority decides to consider the ARR and Yield for the 1st control period for Patna airport in accordance with Table 60.



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16. Annual Tariff Proposal

A. AAI's initial submissions

16.1 As part of the Multi-Year Tariff Proposal, AAI submitted a tariff card for all five years of the first control period. This tariff card has been reproduced below. AAI had initially proposed the implementation date of new tariffs from 01/05/2019. This chapter reproduces the tariff card submitted by AAI as part of its revised MYTP dated 14/03/2019.

I) LANDING CHARGES

Table 61: Landing charges proposed for the first control period

Weight of the Aircraft	Domestic rate per landing (INR)
Up to 25 MT	160 Per MT
Above 25 MT up to 50 MT	4,000+280 per MT in excess of 25 MT
Above 50 MT up to 100	11,000+320 per MT in excess of 50 MT
Above 100 MT to 200 MT	27,000+390 per MT in excess of 100 MT
Above 200 MT	66,000+440 per MT in excess of 200 MT

Landing charges are proposed to be increased by 4% on a compounded basis every year.

Table 62: Existing landing charges

Weight of Aircraft	Domestic flights
Up to 10 MT	INR 67.10 per MT
Above 10 MT up to 20 MT	INR 671 plus INR 117.70 per MT in excess of 10 MT
Above 20 MT up to 50 MT	INR 1,848 plus INR 231 per MT in excess of 20 MT
Above 50 MT up to 100 MT	NA
Over 100 MT	NA

16.2 No landing charges shall be payable in respect of a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operators at airport, b) helicopters of all types, and c) DGCA approved Flying school/flying training institute aircrafts.

16.3 All domestic legs of international routes flown by Indian operators will be treated as domestic flights as far as landing charges is concerned, irrespective of flight number assigned to such flights.

16.4 Charges shall be calculated on the basis of nearest MT (i.e. 1000 kg).



II) PARKING AND HOUSING CHARGES

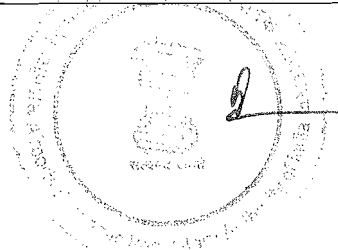
Table 63: Parking charges proposed for the first control period

Weight of the Aircraft	Parking Charges Rates per Hour (INR) (up to two hours after first two free hours)	Parking Charges Rates per Hour (INR) (beyond first four hours)
Up to 25 MT	3.00 Per Hour Per MT	6.00 Per Hour Per MT
Above 25 MT up to 50 MT	75.00+4.00 per Hour per MT in excess of 25 MT	150.00+8.00 per MT per Hour in excess of 25 MT
Above 50 MT up to 100	175.00+8.00 per MT per Hour in excess of 50 MT	350.00+16.00 per MT per Hour in excess of 50 MT
Above 100 MT to 200 MT	575.00+10.00 per MT per Hours in excess of 100 MT	1150.00+20.00 per MT per Hours in excess of 100 MT
Above 200 MT	1575.00+11.00 per MT per Hours in excess of 200 MT	3150.00+22.00 per MT per Hours in excess of 200 MT

Parking and housing charges are proposed to be increased by 4% on a compounded basis every year.

Table 64: Existing parking, housing and night parking charges

Weight of Aircraft	Domestic flights	International flights
Housing charges:		
Up to 40 MT	INR 3.50 per hour per MT	INR 4.10 per hour per MT
Above 40 MT up to 100 MT	INR 140 plus INR 6.80 per hour per MT in excess of 40 MT	INR 164 plus INR 7.90 per hour per MT in excess of 40 MT
Above 100 MT	INR 548 plus INR 10.30 per hour per MT in excess of 100 MT	INR 638 plus INR 11.90 per hour per MT in excess of 100 MT
Parking charges:		
Up to 40 MT	INR 1.80 per hour per MT	INR 2.10 per hour per MT
Above 40 MT up to 100 MT	INR 72 plus INR 3.40 per hour per MT in excess of 40 MT	INR 84 plus INR 3.90 per hour per MT in excess of 40 MT
Above 100 MT	INR 276 plus INR 5.20 per hour per MT in excess of 100 MT	INR 318 plus INR 6.00 per hour per MT in excess of 100 MT
Night parking charges (between 2200 hours and 0600 hours):		
Up to 40 MT	INR 0.90 per hour per MT	INR 1.10 per hour per MT



Weight of Aircraft	Domestic flights	International flights
Above 40 MT up to 100 MT	INR 36 plus INR 1.70 per hour per MT in excess of 40 MT	INR 44 plus INR 2.00 per hour per MT in excess of 40 MT
Above 100 MT	INR 138 plus INR 2.60 per hour per MT in excess of 100 MT	INR 164 plus INR 3.00 per hour per MT in excess of 100 MT

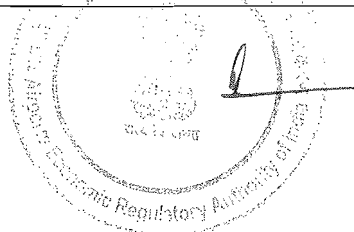
- 16.5 No parking charges shall be levied for the first two hours. While calculating free parking period, standard time of 15 minutes shall be added on account of time taken between touch down time and actual parking time on the parking stand. Another standard time of 15 minutes shall be added on account of taxing time of aircraft from parking stand to take off point. These periods shall be applicable for each aircraft irrespective of actual time taken in the movement of aircraft after landing and before take-off.
- 16.6 For calculating chargeable parking time, part of an hour shall be rounded off to the nearest hour.
- 16.7 Charges shall be calculated on the basis of nearest MT.
- 16.8 Charges for each period parking shall be rounded off to nearest rupee.
- 16.9 At the in-contact stands and open stands, after free parking, for the next two hours normal parking charges shall be levied. After this period, the charges shall be double the normal parking charges.
- 16.10 Night parking charges (between 2200 hours to 0600 hours) will be similar to the parking and housing charges as per table above. It is proposed to waive off the night parking charges in principle for all domestic scheduled operators at Patna Airport if the State Government has brought the rate of tax (VAT) on ATF \leq 5%. The above waiver of night parking charges will be made applicable from the date of implementation of \leq 5% tax on ATF by the State Govt. In the event of upward revision in the tax rate of ATF by the State Govt., the relief of free night parking charges will also be deemed to be withdrawn for all the airports within the jurisdiction of the said State.

III) FUEL THROUGHPUT CHARGES

Proposed Rate Per KL (IN INR)
171.70 (0% escalation)

IV) PASSENGER SERVICE FEE (PSF) – FACILITATION/ USER DEVELOPMENT FEES (UDF)

Category	Existing rate – PSF (FC) - INR per embarking passenger	Proposed rate – UDF - INR per embarking passenger
Domestic	77	298 (0% escalation in subsequent years)



Note:

- PSF (FC) is proposed to be subsumed under UDF. PSF (SC) would be applicable as prescribed by the Ministry of Civil Aviation.
- Originally, AAI proposed a UDF of INR 298 per embarking domestic passenger. However, after examination of the regulatory building blocks by the Authority and the resultant ARR, there was a surplus in projected aeronautical revenues when compared with ARR. Therefore, to ensure that the projected aeronautical revenues match with the ARR, the Authority proposed the UDF per embarking domestic passenger at INR 197 per domestic passenger. The Authority further proposed to revise the same to INR 201 per domestic passenger as per Addendum to the Consultation Paper. After all considerations, the UDF has been fixed at INR 204 per domestic passenger as per this Order.

16.11 Collection charges for UDF: If the payment is made within period prescribed under credit policy of AAI, then collection charges at INR 5 per departing passenger shall be paid by AAI. No collection charges shall be paid in case the airline fails to pay the UDF invoice to AAI within the prescribed credit period or in case of any part payment. To be eligible to claim this collection charges, the airlines should have no overdue on any account with AAI.

16.12 No collection charges are payable to casual operator/non-scheduled operators.

16.13 However, collection charges to be paid by AAI to airlines for collection of UDF on its behalf shall be as per amount agreed by AAI with the airlines. The Authority does not determine the collection charges.

16.14 For conversion of UDF in foreign currency, the RBI reference conversion rate as on the last day of the previous month for tickets issued in the 1st fortnight and rate as on 15th of the month for tickets issued in the 2nd fortnight shall be adopted.

16.15 AAI initially proposed that UDF charges will be applicable on tickets issued on or after 01/05/2019. This date has finally been changed to 01/11/2019 in this Order by the Authority.

V) Exemption from levy and collection from UDF at the Airports

The following categories of persons are exempted from levy and collection of UDF:

- Children (under age of 2 years),
- Holders of Diplomatic Passport,
- Airlines crew on duty including sky marshals & airline crew on board
- For the particular flight only (this would not include Dead Head Crew, or ground personnel),
- Persons travelling on official duty on aircraft operated by Indian Armed Forces,



- Persons traveling on official duty for United Nations Peace Keeping Missions,
- Transit/transfer passengers (this exemption may be granted to all the passengers transiting up to 24 hours. A passenger is treated in transit only if onward travel journey is within 24 hours from arrival into airport and is part of the same ticket. In case two separate tickets are issued, it would not be treated as transit passenger), and
- Passengers departing from the Indian airports due to involuntary re-routing i.e. technical problems or weather conditions.

VI) Passenger Service Fee (PSF)- Facilitation Component:

- PSF (FC) is subsumed under UDF.
- PSF (SC) would be applicable as prescribed by the Ministry of Civil Aviation.

VII) GENERAL CONDITIONS:

- All the above Charges are excluding GST. GST at the applicable rates are payable in addition to above charges.
- Flights operating under Regional Connectivity Scheme will be completely exempted from charges as per Order No. 20/2016-17 dated 31/03/2017 of the Authority from the date the scheme is operationalized by GoI.

B. Authority's examination at Consultation Stage

16.16 Because there are no international operations at present at Patna airport, and no international traffic projections made for the first control period, the Authority decides same tariff for international operations, as is being approved for domestic operations. This measure is just to allow levy of tariff on an international operation, if and when it happens. As and when the international operations appear to sustain for a period at Patna Airport, AAI may approach the Authority with a separate tariff proposal for international operations.

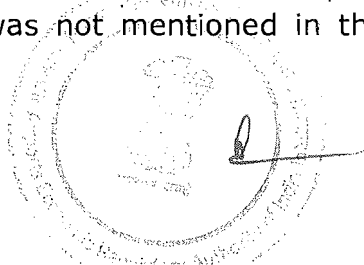
16.17 The Authority examined all the building blocks of AAI's submissions. Based on the ARR arrived at the Consultation stage, it proposed a UDF of INR 197 to be levied with effect from 01.07.2019. It did not propose any modification in the other elements of the Tariff Card proposed by AAI and reproduced above.

C. Stakeholder comments at Consultation Stage

16.18 The Authority received comments from on the elements of Tariff Card from the stakeholders. These are discussed below:

C.1. Comments from stakeholders

16.19 FIA commented that the Public Notice proposes new UDF for domestic passengers which was not mentioned in the Consultation Paper. To this,

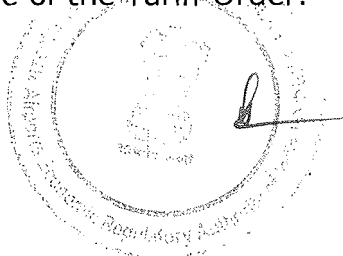


AAI clarified that the UDF was mentioned in the Consultation Paper on Page 62. The Authority also clarifies that the UDF was proposed in the Consultation Paper.

- 16.20 BAOA commented that Fuel Throughput Charges (FTC) on ATF should be done away with and considered for merging with UDF charges to meet the overall ARR requirement of the airport.
- 16.21 BAOA commented on ground handling charges that Ground Handling charges at the airport, though aeronautical in nature, if cannot be fixed on cost-plus basis, then 'self-ground handling' or 'ground handling under own arrangements' should be considered for non-scheduled/ charter operators.
- 16.22 BAOA commented on the hangar charges and stated that hangar charges as 'housing charges' at airports should be aeronautical only when aircraft are parked there on hourly basis for essential maintenance services under CAR 45 related work. Hangars on monthly lease should be treated as non-aeronautical in nature. The Authority should allow housing charges, in hangar, as double of proposed parking charges for the aircraft in the final Order.
- 16.23 HPCL requested to keep the date of implementation of tariff only after the date of release of the order.

C.2. Authority's evaluation of comments from stakeholders

- 16.24 Regarding FIA's comment on UDF, the Authority also clarifies that the UDF was proposed in the Consultation Paper.
- 16.25 Regarding BAOA's comment on FTC, the Authority clarifies that this issue is being looked into by the Ministry of Civil Aviation, Government of India. Therefore, as of now, the Authority does not find it appropriate to comment on the issue in this Consultation Paper.
- 16.26 Regarding BAOA's comment on ground handling charges, the Authority clarifies that at present, there are no AAI authorized ground handling service providers at Patna Airport. The Authority will consider the matter separately as and when Ground Handling agencies are appointed by AAI.
- 16.27 Regarding BAOA's comment on hangar charges, the Authority clarifies that Patna Airport does not have a hangar. Therefore, the Authority does not find it appropriate to comment on this issue in this consultation paper. The Authority will consider the matter separately as it relates to all the Airports and will take a suitable policy decision in this regard.
- 16.28 Regarding HPCL's comment on date of implementation of revised tariffs, the Authority clarifies that it will keep the date of implementation of revised tariffs after the release of the Tariff Order.



D. Stakeholder comments on Addendum to Consultation Paper

D.1. Comments from FIA

- 16.29 **Housing charges:** FIA submits that housing charges are not included in tariff card. FIA requests a confirmation from Authority regarding this.
- 16.30 **Increase in tariffs:** Because of change in slabs from earlier tariffs, the percentage change in tariffs is not clear. FIA requests the Authority to clarify the same. This may be done by way of illustrative list of charges for select configuration of aircraft.
- 16.31 **Aviation Security Fee (ASF):** FIA submits that the Authority should specify the amount of ASF as well as the collection charges for the same in the Tariff Card applicable for Patna Airport. FIA further submits that the Tariff Card should specify the exempted categories of passengers from the levy and collection of ASF as specified in the AIC.

D.2. Response to FIA's comments by AAI

- 16.32 **Housing charges:** AAI did not respond to this comment.
- 16.33 **Increase in tariffs:** AAI did not respond to this comment.
- 16.34 **Aviation Security Fee (ASF):** Aviation Service Fees (ASF) has not been considered while preparation of tariff proposal of Patna Airport.
ASF is being dealt with by MoCA. AIC in this regard has been issued by DGCA, which is applicable at all airports specifying the charges and exemptions.

D.3. Comment from HPCL

- 16.35 **Fuel Throughput Charges (FTC):** We request the date of implementation of tariff to be only after the date of release of Order.

D.4. Authority's evaluation of comments from FIA and HPCL, and AAI's responses

- 16.36 **Housing charges:** Usually, parking charges are applied for the first four hours for which an aircraft is parked. Housing charges are applied for the time beyond four hours. AAI has clubbed these under the name 'parking charges' and defined separate tariff for up to 4 hours and beyond 4 hours.
- 16.37 **Increase in tariffs:** Increase in charges for A320 and B737, which are the most prevalent aircraft for Patna Airport, have been presented below.

Table 65: Indicative increase in aeronautical charges

	Existing	Proposed	% Increase
A320 MTOW of 68 MT			
Domestic:			
Landing charges	12,936	16,760	30%
Parking charges (up to 4 hours)	167	319	91%
Parking charges (beyond 4 hours)	330	638	93%

	Existing	Proposed	% Increase
B737 - 800 MTOW of 79 MT			
Domestic:			
Landing charges	15,477	20,280	31%
Parking charges (up to 4 hours)	205	407	99%
Parking charges (beyond 4 hours)	405	814	101%

16.38 **Aviation Security Fee (ASF):** The Authority does not determine PSF (SC) as the same is determined by the Ministry of Civil Aviation. Similarly, ASF, which is replacing PSF (SC), is determined by the Ministry of Civil Aviation / DGCA. Therefore, the Authority does not intend to determine these charges.

16.39 **Fuel Throughput Charges (FTC):** The Authority has ensured the same, and the revised tariffs shall be implemented prospectively.

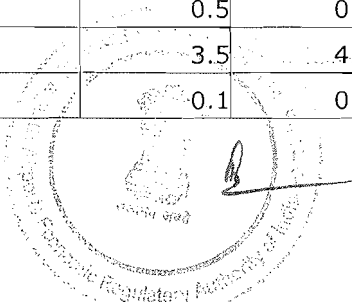
E. Authority's final computation of Aeronautical revenue under the final tariff card

16.40 The Authority has determined the UDF under final tariff card in line with the revised ARR. This has been further detailed in Table 66.

16.41 The Authority has decided to revise the date of implementation of revised tariffs. In the Addendum to Consultation Paper, this date was 01/10/2019. However, this has now been finalized at 01/11/2019. This one month delay in implementation of tariffs led to increase in UDF by INR 4. As per Addendum to Consultation Paper, the Authority proposed a UDF of INR 201 per departing passenger. This is now fixed at INR 204 per departing domestic passenger.

Table 66: Computation of shortfall or surplus from final aeronautical charges (in INR crores)

Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Total PV of ARR including true up	368.2				
Landing charges:					
Domestic	20.6	27.5	39.2	48.0	59.0
International	-	-	-	-	-
Parking and housing charges:					
Domestic	0.0	0.0	0.0	0.0	0.0
International	-	-	-	-	-
Fuel Throughput charges	0.6	0.8	1.1	1.2	1.5
Ground handling charges	0.4	0.4	0.5	0.6	0.7
Land lease - Oil companies	1.2	1.2	1.2	1.2	1.3
Land lease- Ground Handling	0.5	0.5	0.5	0.5	0.5
CUTE charges	3.5	4.5	5.2	6.0	7.6
Cargo Revenue	-0.1	0.1	0.1	0.1	0.1



Particulars	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Total - before UDF	27.0	35.0	47.7	57.6	70.7
PV factor	1.00	0.88	0.77	0.67	0.59
PV of above	27.0	30.7	36.7	38.9	41.9
Σ PV of above	175.1				
Shortfall before UDF	193.0				
UDF:					
Domestic	15.6	33.8	61.1	70.3	89.9
International	-	-	-	-	-
PV of UDF	15.6	29.7	47.0	47.4	53.3
Σ PV of UDF	193.0				
Surplus / Shortfall	-				

Decision No. 13. Regarding tariff rate card

- (i) The Authority decides a tariff card for 1st Control Period as given in Annexure-1.
- (ii) The Authority decides to set tariff for international operations at Patna Airport at the same levels as for domestic operations at Patna Airport.



17. Annual Compliance Statement

- 17.1. The Airport Guidelines issued by the Authority have laid down the error correction mechanism with reference to the adjustment to the Estimated Maximum Allowed Yield per passenger, calculated using the error correction term of Tariff Year t-2 and the compounding factor. The error correction calculated as per the Airport Guidelines indicated the quantum of over-recovery or under-recovery due to increase or decrease respectively of the Actual Yield per passenger with respect to Actual Maximum Allowed Yield per passenger in the Tariff Year.
- 17.2. Accordingly, any recovery / over recovery during the first control period will be accounted for in the second control period.
- 17.3. Further, the Authority has noted that in view of all the corrections/truing up to be carried out at the end of the control period, Patna Airport may submit Annual Compliance Statements for the tariff years FY 2018-19 to FY 2022-23 of the first control period.

Decision No. 14. Regarding Annual Compliance

- (i) Patna Airport shall submit the Annual Compliance Statements as per the Guidelines for all the tariff years from FY 2018-19 to FY 2022-23 of the first control period along with the MYTP for the next Control Period.



18. Summary of Decisions


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19. Order

19.1 In exercise of power conferred by section 13(1)(a) of the AERA Act, 2008 and based on the above decisions, the Authority hereby determines the aeronautical tariffs to be levied at Patna Airport for the First Control Period from 01.04.2018 to 31.03.2023 effective from 01.11.2019 and the rate card so arrived at has been attached as Annexure 1 to the Order. The UDF rates indicated in the tariff card are also in accordance with section 13 (1)(b) read with rule 89 of the Aircraft Rules, 1937. The rates approved herein are the ceiling rates, exclusive of taxes if any.

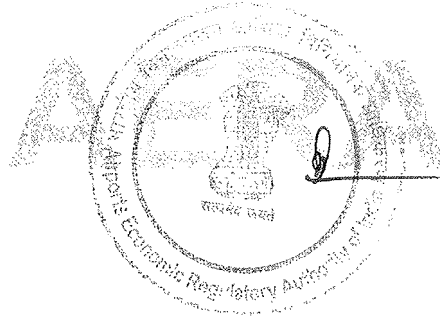
By the Order of and in the Name of the Authority


24.10.19
(Geetha Sahu)
AGM (F)

To,

Airports Authority of India,
Rajiv Gandhi Bhavan,
Safdarjung Airport,
New Delhi - 110003

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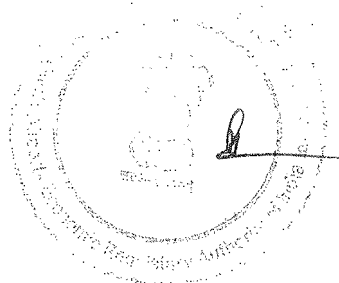
20. Annexure 1 – Tariff card for Patna Airport for the 1st Control Period proposed by the Authority

Note: Tariff for International Operations during the 1st control period, if any, will be same as applicable to Domestic Operations.

1. Landing charges:

Weight of the Aircraft	FY 2019-20 (from 01/11/19)	FY 2020-21	FY 2021-22	FY 2022-23
Domestic rate per landing (INR)				
Up to 25 MT	160 Per MT	166 Per MT	173 Per MT	180 Per MT
Above 25 MT up to 50 MT	4,000+280 per MT in excess of 25 MT	4,160+291 per MT in excess of 25 MT	4,326+303 per MT in excess of 25 MT	4,499+315 per MT in excess of 25 MT
Above 50 MT up to 100	11,000+320 per MT in excess of 50 MT	11,440+333 per MT in excess of 50 MT	11,898+346 per MT in excess of 50 MT	12,374+360 per MT in excess of 50 MT
Above 100 MT to 200 MT	27,000+390 per MT in excess of 100 MT	28,080+406 per MT in excess of 100 MT	29,203+422 per MT in excess of 100 MT	30,371+439 per MT in excess of 100 MT
Above 200 MT	66,000+440 per MT in excess of 200 MT	68,640+458 per MT in excess of 200 MT	71,386+476 per MT in excess of 200 MT	74,241+495 per MT in excess of 200 MT

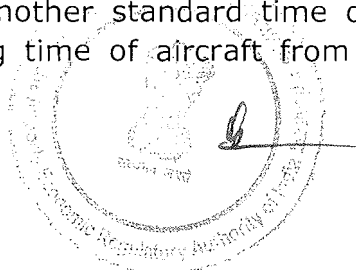
- No landing charges shall be payable in respect of a) aircraft with a maximum certified capacity of less than 80 seats, being operated by domestic schedule operators at airport, b) helicopters of all types, and c) DGCA approved Flying school/flying training institute aircrafts.
- All domestic legs of international routes flown by Indian operators will be treated as domestic flights as far as landing charges is concerned, irrespective of flight number assigned to such flights.
- Charges shall be calculated on the basis of nearest MT (i.e. 1000 kg).



2. Parking Charges

Weight of the Aircraft	FY 2019-20 (from 01/11/19)	FY 2020-21	FY 2021-22	FY 2022-23
Parking Charges Rates per Hour (upto four hours) (in INR)				
Up to 25 MT	3.00 Per Hour Per MT	3.12 Per Hour Per MT	3.24 Per Hour Per MT	3.37 Per Hour Per MT
Above 25 MT up to 50 MT	75.00+4.00 per Hour per MT in excess of 25 MT	78 + 4.16 per Hour per MT in excess of 25 MT	81.12 + 4.33 per Hour per MT in excess of 25 MT	84.36 + 4.5 per Hour per MT in excess of 25 MT
Above 50 MT up to 100	175.00+8.00 per MT per Hour	182 + 8.32 per Hour per MT in	189.28 + 8.65 per Hour per	196.85 + 9 per Hour per MT in
Above 100 MT to 200 MT	575.00+10.00 per MT per Hours in excess of 100 MT	598 + 10.4 per Hour per MT in excess of 100 MT	621.92 + 10.82 per Hour per MT in excess of 100 MT	646.8 + 11.25 per Hour per MT in excess of 100 MT
Above 200 MT	1575.00+11.00 per MT per Hours in excess of 200 MT	1638 + 11.44 per Hour per MT in excess of 200 MT	1703.52 + 11.9 per Hour per MT in excess of 200 MT	1771.66 + 12.38 per Hour per MT in excess of 200 MT
Parking Charges Rates per hour (beyond four hours) (in INR)				
Up to 25 MT	6.00 Per Hour Per MT	6.24 Per Hour Per MT	6.49 Per Hour Per MT	6.75 Per Hour Per MT
Above 25 MT up to 50 MT	150.00+8.00 per MT per Hour in excess of 25 MT	156 + 8.32 per Hour per MT in excess of 25 MT	162.24 + 8.65 per Hour per MT in excess of 25 MT	168.73 + 9 per Hour per MT in excess of 25 MT
Above 50 MT up to 100	350.00+16.00 per MT per Hour in excess of 50 MT	364 + 16.64 per Hour per MT in excess of 50 MT	378.56 + 17.31 per Hour per MT in excess of 50 MT	393.7 + 18 per Hour per MT in excess of 50 MT
Above 100 MT to 200 MT	1150.00+20.00 per MT per Hours in excess of 100 MT	1196 + 20.8 per Hour per MT in excess of 100 MT	1243.84 + 21.63 per Hour per MT in excess of 100 MT	1293.59 + 22.5 per Hour per MT in excess of 100 MT
Above 200 MT	3150.00+22.00 per MT per Hours in excess of 200 MT	3276 + 22.88 per Hour per MT in excess of 200 MT	3407.04 + 23.8 per Hour per MT in excess of 200 MT	3543.32 + 24.75 per Hour per MT in excess of 200 MT

- No parking charges shall be levied for the first two hours. While calculating free parking period, standard time of 15 minutes shall be added on account of time taken between touch down time and actual parking time on the parking stand. Another standard time of 15 minutes shall be added on account of taxing time of aircraft from parking stand to take off point.



These periods shall be applicable for each aircraft irrespective of actual time taken in the movement of aircraft after landing and before take-off.

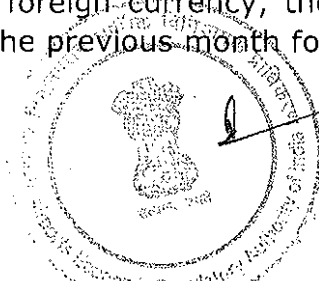
- For calculating chargeable parking time, part of an hour shall be rounded off to the nearest hour.
- Charges shall be calculated on the basis of nearest MT.
- Charges for each period parking shall be rounded off to nearest rupee.
- At the in-contact stands and open stands, after free parking, for the next two hours normal parking charges shall be levied. After this period, the charges shall be double the normal parking charges.
- Night parking charges (between 2200 hours to 0600 hours) will be similar to the parking and housing charges as per table above. Night parking charges are waived off in principle for all domestic scheduled operators at Patna Airport if the State Government has brought the rate of tax (VAT) on ATF \leq 5%. The above waiver of night parking charges will be made applicable from the date of implementation of \leq 5% tax on ATF by the State Govt. In the event of upward revision in the tax rate of ATF by the State Govt., the relief of free night parking charges will also be deemed to be withdrawn for all the airports within the jurisdiction of the said State.

3. Fuel Throughput Charges = INR 171.70 per kilolitre (from 01/11/19). However this will be reviewed based on the policy of Ministry of Civil Aviation, Government of India in future.

4. User Development Fees (UDF)

Passenger	UDF (INR per embarking passenger)
Domestic	204 (0% escalation in subsequent years)

- Collection charges to be paid by AAI to airlines for collection of UDF on its behalf shall be as per amount agreed by AAI with the airlines. The Authority does not determine the collection charges
- However, AAI has proposed: If the payment is made within period prescribed under credit policy of AAI, then collection charges at INR 5 per departing passenger shall be paid by AAI. No collection charges shall be paid in case the airline fails to pay the UDF invoice to AAI within the prescribed credit period or in case of any part payment. To be eligible to claim this collection charges, the airlines should have no overdue on any account with AAI.
- No collection charges are payable to casual operator/non-scheduled operators.
- For conversion of UDF in foreign currency, the RBI reference conversion rate as on the last day of the previous month for tickets issued in the 1st



fortnight and rate as on 15th of the month for tickets issued in the 2nd fortnight shall be adopted.

(v) The UDF charges will be applicable on tickets issued from **01/11/2019**.

5. Exemption from levy and collection from UDF at the Airports

The Ministry of Civil Aviation, Govt. of India vide order no. AV.16011/002/2008-AAI dated 30.11.2011 has directed AAI to exempt the following categories of persons from levy and collection of UDF:

- (i) Children (under age of 2 years),
- (ii) Holders of Diplomatic Passport,
- (iii) Airlines crew on duty including sky marshals & airline crew on board for the particular flight only (this would not include Dead Head Crew, or ground personnel),
- (iv) Persons travelling on official duty on aircraft operated by Indian Armed Forces,
- (v) Persons traveling on official duty for United Nations Peace Keeping Missions,
- (vi) Transit/transfer passengers (this exemption may be granted to all the passengers transiting up to 24 hours. A passenger is treated in transit only if onward travel journey is within 24 hours from arrival into airport and is part of the same ticket. In case two separate tickets are issued, it would not be treated as transit passenger), and
- (vii) Passengers departing from the Indian airports due to involuntary rerouting i.e. technical problems or weather conditions.

6. Passenger Service Fee (PSF)- Facilitation Component:

PSF (FC) is subsumed under UDF.

PSF (SC) / Aviation Security Fee (ASF) would be applicable as prescribed by the Ministry of Civil Aviation.

7. General conditions:

- All the above Charges are excluding GST. GST at the applicable rates are payable in addition to above charges.
- Flights operating under Regional connectivity scheme will be completely exempted from charges as per Order No. 20/2016-17 dated 31/03/2017 of the Authority from the date the scheme is operationalized by GOI.

