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Kempegowda
INTERNATIONAL
AIRPORT
BENGALURU

23rd July 2020

Ref: AERA/Finance/2020-21/01

The Chairman,
Airports Economic Regulatory Authority of India
AERA Building,
Administrative Complex,
Safdarjung Airport, New Delhi -110 003.

Dear Sir,

Subject: Submission of Multi Year Tariff Proposal (MYTP) for the 3rd Control Period

Direction No.05/2010-11 requires the submission of MYTP by the airport operator for the ensuing control period as per the norms prescribed by the Authority.

BIAL wishes to submit the MYTP for the 3rd Control Period which consists of the following:
1) MYTP Tariff proposal outlining the approach and assumptions for tariff filing
2) Business Plan
3) MYTP Forms and Annual Compliance Forms

We request you to ensure complete confidentiality of the information submitted herewith, so that no prejudice is caused, which will impact BIAL's commercial position.

The enclosed MYTP submissions are being done considering the uncertainties on account of the prevalent COVID 19 situation. We request the Authority to allow us to add, modify, revise, and rectify the information submitted in the MYTP, as the case may be.

We also request the Authority that based on additional information, discussion, clarification that may be received from the Authority, we be allowed to add, modify, revise, and rectify the MYTP filings.

As you are aware, BIAL has appealed on certain matters pertaining to the previous tariff orders issued by the Authority for the 1st and 2nd control period, with the Hon'ble TDSAT, vide Appeal No. 3 of 2014 and Appeal No.08 of 2018 respectively. We hereby submit that information submitted herewith is without prejudice to BIAL's rights, contentions and the ground urged in th said Appeals, which are pending adjudication by Hon'ble TDSAT.

Thanking You.
Yours faithfully,

For Bangalore International Airport Limited

Bhaskar Anand Rao
Chief Financial Officer

Encl: MYTP Tariff proposal, Business Plan and Forms

Kempegowda International Airport, Bengaluru

Multi Year Tariff Proposal for Third Control Period

(FY 2021-22 to FY 2025-26)

24 July 2020

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Abbreviations

Abbr.	Expansion	Abbr.	Expansion
AAI	Airports Authority of India	IGAAP	Indian Generally Accepted Accounting Principles
ACI	Airports Council International	IL&FS	Infrastructure Leasing & Financial Services
AED	Automated external defibrillator	IMF	International Monetary Fund
AERA	Airports Economic Regulatory Authority	IND-AS	Indian Accounting Standards
AERAAT	Airports Economic Regulatory Authority Appellate Tribunal	IoT	Internet of Things
AGL	Above Ground Level	IRA	Independent Regulatory Authority
AOCC	Airport Operation Control Centre	KERC	Karnataka Electricity regulatory Commission
AOD	Airport Opening Date	KIAB	Kempegowda International Airport, Bengaluru
ARFF	Airport Rescue and Fire Fighting	KIAF	Kempegowda International Airport Foundation
ASQ	Airport Service Quality	KPTCL	The Karnataka Power Transmission Corporation Ltd.,
ASSOCHAM	The Associated Chambers of Commerce and Industry of India	KSIIDC	Karnataka State Industrial Infrastructure Development Corporation
ATC	Air Traffic Control	Kd	Cost of Debt
ATM	Air Traffic Movement	KV	Kilovolt
ATRS	Automated Tray Retrieval System	LCC	Low Cost Carrier
AUCC	Airport User Consultative Committee	LEED	Leadership in Energy and Environmental Design
BACL	Bengaluru Airport City Limited	MAG	Minimum Annual Guarantee
BAHL	Bangalore Airport Hotels Limited	MAR	Main Access Road
BCAS	Bureau of Civil Aviation Security	MAT	Minimum Alternate Tax
BCG	Boston Consulting Group	MCLR	Marginal Cost of Funds based Lending Rate
BCM	Business continuity management	MEA	Middle-East and Asia
BCP	Business Continuity Plan	MIAL	Mumbai International Airport Limited
BESCOM	Bangalore Electricity Supply Company	MLCP	Multi-Level Car Parking
BIAL	Bangalore Intl. Airport Ltd.	MMTH	Multi-Modal Transport Hub
BLR	Bengaluru	MoCA	Ministry of Civil Aviation
BMRCL	The Bangalore Metro Corporation Limited	MoU	Memorandum of Understanding
BMRDA	Bengaluru metropolitan Region Development Authority	mppa	million passengers per annum
BMS	Building Management System	MRO	Maintenance, Repair, Overhaul
BMTC	Bangalore Metropolitan Transport Corporation	MYTP	Multi-Year Tariff Proposal
BOM	Mumbai International Airport Limited (IATA Code)	NCAP	National Civil Aviation Policy
BOOT	Build, Own, Operate and Transfer	NDMA	National Disaster Management Authority
BRS	Baggage Reconciliation System	NH	National Highway
CA	Concession Agreement	NHAI	National Highways Authority of India
CAGR	Compound Annual Growth rate	NSPR	New South Parallel Runway

Abbr.	Expansion	Abbr.	Expansion
CAPA	Centre for Asia Pacific Aviation	ORAT	Operational Readiness And Transition
CFT	Crash Fire Tender	PAL	Planning Activity Level
CGF	Cargo, Ground handling, Fuel throughput charge and into plane services	PHE	Public Health Engineering
CIC	Common Infrastructure Charges	PMC	Project Management Cost
CII	Confederation of Indian Industry	PPE	Personal Protective Equipment
CISF	Central Industrial Security Force	PSF	Passenger Service Fee
CNS	Communication, Navigation and Surveillance	PTB	Passenger Terminal Building
CoD	Cost of Debt	QA	Quality Assurance
CoE	Cost of Equity	RAB	Regulatory Asset Base
Covid-19	COrona VIrus Disease 2019	RET	Rapid Exit Taxiway
CP	Consultation Paper	RFP	Request For Proposal
CPI	Consumer Price Index	RFQ	Request For Quotation
CRISIL	Credit Rating Information Services of India Ltd.,	RITES	Rail India Technical and Economic Service
CSR	Corporate Social responsibility	RoW	Right of Way
CUTE	Common Use Terminal Equipment	RPK	Revenue Per Kilometre
CUSS	Common Use Self Service	S&P Global	Standard & Poor's Global
DGCA	Director General Civil Aviation	SAR	Secondary Access Roads
DIAL	Delhi International Airport Limited	SARS-CoV-2	Severe Acute Respiratory Syndrome-Coronavirus 2
DPR	Detailed Project Report	SBD	Self Bag Drop
DRC	Disaster Recovery Centre	SCADA	Supervisory Control And Data Acquisition
DSR	Delhi Schedule of Rate	SLM	Straight Line Method
E&M	Engineering & Maintenance	SOP	Standard Operating Procedures
EAC	Estimate At Completion	SPP	Sales Per Pax
ECBC	Energy Conservation Building Code	SPRH	Service Provider Right Holder Agreement
ECT	Eastern Connectivity Tunnel	SRT	Shared revenue Till
EoI	Expression of Interest	STP	Sewage Treatment Plant
FIA	Federation of Indian Airlines	T2 P1	Terminal 2 Phase 1
FRoR	Fair Rate of Return	TAT	Turn around time
FSC	Full Service Carrier	TDSAT	Telecom Dispute Settlement and Appellate Tribunal
FTC	Fuel Throughput Charges	UDF	User Development Fee
GAAP	Generally Accepted Accounting Principles	VUP	Vehicular Underpass
GM ERCR	General Manager, Enterprise Risk and Corporate Resilience	WCT	Western Crossfield Taxiway
GoK	Government of Karnataka	WHO	World Health Organization
GSE	Ground Support Equipment	WTP	Water Treatment Plant
HVAC	Heating, ventilation, and air conditioning	IATA	International Air Transport Association
HSE	Health, safety & environment.	ICAO	International Civil Aviation Organization

Disclaimer

The current MYTP proposal of BIAL for Third Control Period (1st April 2021 to 31st March 2026) is without prejudice to the matters appealed by BIAL in Appeal No. 3 of 2014 and Appeal No.8 of 2018, with Hon'ble TDSAT. BIAL reserves its right to modify/ alter/ change this MYTP Proposal based on the outcome of the aforesaid Appeal including legal and regulatory principles as may be decided by TDSAT in the aforesaid appeal.

The impact of COVID-19 pandemic on traffic projections, aero & non-aero revenues, aeronautical operating costs and completion of Expansion project on the currently estimated timelines and project cost may change substantially based on how the pandemic situation develops based on severity of spread and duration of the pandemic effect in India & the world. In light of the above, BIAL reserves the right to modify, alter and change the MYTP proposal to reflect the impact of COVID-19.

This Multi-Year Tariff Proposal submission (hereinafter referred to as "MYTP Submission") is being made by Bangalore International Airport Limited (hereinafter referred to as "BIAL") to the Airport Economic Regulatory Authority of India (hereinafter referred to as "AERA" or "the Authority"). This MYTP Submission is being made to AERA for the purpose of tariff determination for BIAL and for AERA's internal deliberations and reference.

In order to make this submission, BIAL has disclosed certain confidential information sensitive to its business. BIAL requests that the information shared in this document be treated as confidential.

BIAL requests that the Authority kindly involve BIAL while arriving at the contents that needs to be shared with all stakeholders as part of the tariff determination process, so that confidential information is not inadvertently disclosed.

1. Background and Introduction to Bangalore International Airport Limited

1.1. Background of BIAL Formation

1.1.1 The Government of India recognized the Public Private Partnerships (PPPs) as a feasible and viable option for creating infrastructure and enable private sector investment.

1.1.2 Accordingly, a greenfield airport at Devanahalli was proposed on a PPP basis, jointly by the state government of Karnataka and Union of India. In May 1999, a Memorandum of Understanding (MoU) was signed between Government of Karnataka (GoK) (through Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC)) and Union of India (through AAI) and an "in principle" approval was granted for an international airport in Bengaluru by the Ministry of Civil Aviation (hereinafter referred to as 'MoCA' or 'the Ministry'). KSIIDC published Invitation for Expression of Interest (EoI) through international competitive bidding in June 1999 for Joint Venture Partners wherein 26% would be held by KSIIDC and AAI and the remaining 74% by Joint Venture Partners.

1.1.3 A Steering Committee was then constituted for evaluation of EoI. Based on the approval of the Steering Committee, KSIIDC appointed IL&FS as the Project Advisors and Dua Associates as the Legal Advisors. The Steering Committee decided to follow a three-stage bidding process comprising of Expression of Interest (RFQ) in Stage-1, submission of concept master plan called Airport Development Plan in Stage-2 and Request for Proposal (RFP) in Stage-3. These stages of the bidding process were then followed, and the proposal submitted by Consortium led by Siemens Project Ventures, Germany was accepted. In order to facilitate private investment, the Airport Authority of India Act, 1994 was amended by the Amendment Act 43 of 2003 to encourage investment in greenfield airports.

1.1.4 Subsequent to the above, various project agreements as listed below, were executed:

- Shareholders Agreement between Bangalore International Airport Limited (BIAL), Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC), Airport Authority of India (AAI), Siemens Project Ventures GmbH, Larsen & Toubro and Flughafen Zürich AG on 23rd January 2002, as amended from time to time.
- Concession Agreement between Ministry of Civil Aviation (MoCA) and BIAL was signed dated 5thJuly 2004 as amended from time to time.
- State Support Agreement between Government of Karnataka (GoK) and BIAL was signed dated 20th January 2005 as amended from time to time.
- Land Lease Deed between KSIIDC and BIAL was dated on 30th April 2005 as amended from time to time.
- Financial closure was achieved during June 2005. Financial closure for the expansion was also achieved as of August 2019.

1.2. Structure of the Company

1.2.1 Bangalore International Airport Limited (hereinafter referred to as "BIAL" or "the Company") is a Limited Company incorporated under the provisions of the Companies Act, 1956. The main objectives of BIAL are to operate, maintain, develop, design, construct, upgrade, modernize and manage airport and other activities envisaged and permitted in and under the CA at Bengaluru. Kempegowda International Airport, Bengaluru (hereinafter referred to as "the Airport") is India's first Private greenfield airport undertaken in Public Private Partnership mode. The Airport is built on a Public Private Partnership (PPP) model and is structured on a Build, Own, Operate and Transfer (BOOT) basis. The airport was commissioned on 24th May 2008 with an initial capacity of 11.4 million passengers per annum.

1.2.2 The present shareholding pattern is detailed as under:

Table 1: Shareholding Pattern

Shareholder	(%)
Fairfax Holdings	54%
Siemens Project Ventures GmbH	20%
Airport Authority of India – (GoI)	13%
Karnataka State Industrial Infrastructure Development Corporation Limited (GoK)	13%
Total	**100%**

1.2.3 BIAL presently has 3 wholly owned subsidiaries as given below:

- Bangalore Airport Hotels Limited (BAHL):
  - BIAL had acquired 100% of the shares in BAHL from its existing shareholders on 20th December 2013. BAHL's principal activity is constructing, operating and maintaining of hotel at KIAB. BAHL has entered into a hotel operating agreement with the Indian Hotels Company Limited to operate its five-star hotel under "Taj" brand with effect from 5th December 2014. The Hotel commenced its operations in the year 2016-17. BAHL is currently expanding its facilities to accommodate additional 220 rooms. BIAL has entered into a lease agreement with BAHL for 4.19 Acres of land for the existing facility and 2.04 Acres for the proposed expansion facility. The lease rentals for the existing facility have been effective from 1st April 2019 at approx. Rs. 2.5 crores per annum and for the proposed expansion, they will commence from the date of start of operations, which is likely to be by March 2022.
- Bengaluru Airport City Ltd (BACL):
  - BACL was incorporated on 21st January 2020 to carry out Real Estate activities development of commercial ventures such as hotels, restaurants, conference venues, meeting facilities, business centres, trade fairs, real estate, theme parks, amusement arcades, golf courses and other sports and/or entertainment, facilities, banks and exchanges and shopping malls, as provided for in the CA. A total of 462 acres have been identified for various real estate activities

described above. BIAL has agreed to sub-lease 462 acres to BACL. This lease transfer and possession will be carried out in tranches for development of various asset classes being classified as including Business Parks, Knowledge Parks, Hospitality, Retail Dining, Entertainment, Convention and Exhibition Centre. The lease agreement between BIAL and BACL is pending for approval of lenders and is expected to be executed shortly and the lease rentals will be payable from the commencement of operations of the respective assets.

- Kempegowda International Airport Foundation (KIAF):
  - BIAL is implementing various projects as part of its CSR initiatives across Bangalore Rural and Urban Districts particularly with Gram Panchayats adjacent to Kempegowda International Airport, Bengaluru in accordance with the CSR Policy approved by the Board. BIAL, so as to able to carry out such services at larger scale including involving other interested and willing partners in the airport community had established a separate Section 8 Company to implement the CSR initiatives and social programs called "Kempegowda International Airport Foundation" on 6th March 2020. The Foundation will enable BIAL to collaborate with interested and willing partners who are operating at the Airport as well as other interested partners for implementing the programs by pooling in contributions/ donations.
  - The Foundation has identified promotion of education, health, integrated development, water & sanitation, sports & promotion of culture and heritage as its primary thematic work areas. The projects will be implemented under the flagship initiatives of 'Namma Shikshana', 'Namma Arogya', 'Namma Ooru', 'Namma Nela – Namma Jala', and 'Namma Parampare'

2. History of Tariff Determination Process by AERA for BIAL

2.1. Tariff Determination for First Control Period

2.1.1 The Airport Economic Regulatory Authority of India (hereinafter referred to as "the Authority" or "AERA") was established under AERA Act 2008 for regulating tariff for aeronautical services among other functions in respect of major airports in India and commenced functioning from 2009. In the discharge of its functions of determination of tariff for aeronautical services, to call for such information as may be necessary to determine tariff under the AERA Act, and to ensure transparency, the Authority had issued Direction No. 05/2010-11 dated 28th February 2011.

2.1.2 Based on BIAL's submissions and the Authority's examinations, the Authority published Consultation Paper No. 14/ 2013-14 (CP 14) dated 26th June 2013. In response to CP 14, BIAL and other stakeholders made submissions.

2.1.3 BIAL submitted replies to the queries of the Authority on 15th October 2013 and made presentation to the Authority on 25th October 2013. BIAL further submitted its responses to Authority's queries on 2nd December 2013. A site visit was carried out by the Authority and discussions with BIAL were held during 18th December 2013 and 19th December 2013.

2.1.4 Based on the MYTP 2013 submissions and subsequent communications made by BIAL, the Authority issued Consultation Paper 22/ 2013-14 dated 24th January 2014 (CP 22) as an addendum to CP 14.

2.1.5 In response to CP 22, BIAL made its submissions within the due date for response. Subsequently, a Stakeholder Consultation meeting was held on 10th February 2014. Based on the Stakeholder Consultation and other submissions of stakeholders, the Authority passed the Tariff Order (Order No. 8/2014-15) on 10th June 2014 for First Control Period.

2.1.6 As per of Order No. 8/2014-15, vide Decision No. 17 (a)(i), inter alia, Authority decided to consider revenue from ICT services as revenues arising out of Aeronautical service and had thus considered these charges as Aeronautical charges. Accordingly, as part of the tariff structure of BIAL, the Authority had approved CUSS/CUTE/BRS charges @ US$ 1.25 per departing passenger, effective from 1st July 2014.

2.1.7 Subsequent to the issue of tariff Order, Federation of Indian Airlines (FIA) filed an appeal in the Airports Economic Regulatory Authority Appellate Tribunal (AERAAT) against the aforesaid order of the Authority. The AERAAT vide its order dated 1st July 2014 had ordered status quo in respect of these ICT charges as on 10th June 2014, when the impugned order was passed. Subsequently, BIAL and FIA arrived at a settlement to scale down the CUSS/CUTE/BRS charges.

2.1.8 Based on this, the Authority issued Order No. 15/2014-15on 6th January 2015 allowing BIAL to levy CUTE, CUSS and BRS Charges on Domestic and International departing passengers at US$ 1 effective from 15th January 2015, for the First Control Period.

Appeal against Order No. 8/2014-15 pending before AERAAT

2.1.9 Being aggrieved by Order No. 8/2014-15 of the Authority, BIAL filed an appeal in AERAAT vide Appeal No. 3 of 2014. The tariff order for the First Control Period is sub-judice and pending final adjudication by TDSAT (Telecom Dispute Settlement and Appellate Tribunal (TDSAT) (AERAAT merged with TDSAT).

2.2. Tariff Determination for Second Control Period

2.2.1 On 26th March 2016, BIAL submitted its initial Multi-Year Tariff Proposal to AERA for tariff determination for Second Control Period. The tariff application of BIAL for Second Control Period (1st April 2016 to 31st March 2021) was without prejudice to the matters appealed in aforesaid Appeal. At the time of initial submission, Terminal 2 Phase 1 was planned for a capacity of 20 mppa, considering the prevalent traffic growth. However, traffic growth had become significantly higher - leading to passenger traffic of nearly 23 mppa as of FY 2016-17. Hence, BIAL decided to increase the capacity of Terminal 2 Phase 1 (and allied infrastructure) to 25 mppa from the initially proposed 20 mppa.

2.2.2 In order to evaluate the capital cost proposed to be incurred by BIAL, Authority had appointed a consultant for evaluation of the Capital Expenditure proposals submitted by BIAL in August 2017. The final report of the consultant was received on 25th January 2018.

2.2.3 The submissions made by BIAL and the various clarifications provided by BIAL were analysed and the Authority issued Consultation Paper No 5/2018-29 dated 17th May 2018 for the Second Control Period and a Stakeholder consultation was held on 18th June 2018 to discuss the views of the various stakeholders on the aforesaid Consultation Paper.

2.2.4 Based on the Stakeholder Consultation and submissions of all stakeholders, BIAL submissions to Consultation Paper and response to stakeholder comments, the Authority passed the Tariff Order (Order No. 18/2018-19) on 31st August 2018 for Second Control Period. AERA vide corrigendum dated 4th September 2018, issued a revised tariff card.

2.2.5 The Authority had in the Order stated that there would be a penalty in case there is a delay in completion/operationalization of the project beyond March 2021. The Authority had also stated that it will not consider any IDC and PMC charges beyond 31st March 2021 in case of delay in completion/operationalization of the project.

2.2.6 BIAL sought clarifications on the aforesaid matter vide its letter AERA/Finance/2018-19/02 dated 7th September 2018. AERA clarified on 13th September 2018 that in case there is delay in completion of project beyond March 2021, due to any reason beyond the control of BIAL or its contracting agency and is justified, the same would be considered by the Authority while truing up the actual cost at the time of determination of tariff for the Third Control Period in respect of IDC and PMC. However,

there will be no waiver of penalty in case phase 1 of Terminal 2 project is delayed beyond 31st March 2021 under any circumstances.

2.2.7 It was also informed that the disallowance/penalty referred at para 9.6.5 of Order No.18/2018-19 issued by the Authority is applicable only to Terminal 2 phase 1 project. Clarificatory letter issued by the Authority dated 13th September 2018 is attached in Annexure 1.

Appeal against Order No. 18/2018-19 pending before TDSAT

2.2.8 Being aggrieved by other matters in Order No. 18/2018-19 of the Authority, BIAL filed an appeal in TDSAT vide Appeal No. 8 of 2018 dated 14th March 2019. The tariff order for the Second Control Period is sub-judice and pending adjudication by TDSAT.

Ad-hoc UDF order

2.2.9 BIAL, had also filed an Interlocutory Application, M.A. No. 449/ 2018 praying for interim relief by way of staying operation of certain portion of the Order No.18/2018-19 and for permitting BIAL to collect charges as per the rate card of the First Control Period.

2.2.10 Hon'ble TDSAT passed an interim order on 14th March 2019 ("TDSAT Interim Order"), permitting BIAL to collect UDF of First Control Period for a limited period of four months – from 16th April 2019 to 15th August 2019.

2.2.11 Relevant portion of the TDSAT Order reads as below:

> *"8.We have been informed by learned senior counsel for the appellant that UDF rate difference between the First Control Period and Second Control Period results in a revenue difference of Rs. 50 crore per month approximately. In facts of the case, we are of the opinion that if first control rates in respect of UDF (domestic and international) are provided for a period of 4 months, additional revenue generated will cover the admitted capital expenditure gap and also provide reasonable cushion to override cash flow problems.*
>
> *9. In view of the discussion above, we direct AERA to issue suitable orders preferably within three weeks, to effect UDF rates (domestic and International) as per the First Control Period for a limited period of 4 (four) months. It is clarified that the definition of transit passengers will remain as per the latest modified Orders. It is further clarified that the funds generated on account of enhanced UDF rates must be used only for Capital Expenditure of the expansion. project and in accordance with the procedure prescribed in the concession agreement. The interim arrangement is made without any prejudice to the rights and contentions of both the parties and will be subject to the final outcome of the petition"*

2.2.12 Based on the above TDSAT order, the Authority passed the following order vide "Amendment to Order 18/2018-19 dated 4th April 2019:

"4.1.1. The UDF rates for Domestic and International embarking passengers shall be Rs.306 and Rs.1226 respectively instead of Rs. 139 and Rs. 558 for domestic and International embarking passengers respectively, for the ticket procured during limited period from 16th April 2019 to 15th August 2019.

4.1.2. BIAL shall maintain a separate bank account wherein the excess UDF collections, together with any income viz Interest thereon shall be deposited and maintained.

4.1.3. BIAL shall use the funds from the said bank account only for the purpose of Capital Expenditure for the expansion project and after all the other sources of funding are exhausted.

4.1.4. The Authority will review the additional collections made by BIAL pursuant to this Order and the actual expenditure incurred for the expansion project and consider the same appropriately at the time of determination of tariff for the next control period and subject to outcome of final Order of TDSAT in this matter.

4.1.5. All other terms of Order 18/2018-19 shall remain unchanged."

2.2.13 AERA mandated BIAL to deposit such money generated from the incremental increase in UDF in a separate Bank account and to be used only to fund the ongoing infrastructure expansion.

2.2.14 The above amounts have been certified by auditors and is attached in Annexure 2.

2.2.15 This amount is offered for true up as part of the Aero Revenues.

3. Outbreak of COVID-19 pandemic and its impact on Aviation Industry

3.1. About COVID-19 pandemic

3.1.1 Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, China, and since spread globally, resulting in an ongoing pandemic. As of 23rd July 2020, more than 15 million cases have been reported globally, resulting in more than 600,000 deaths. In India, more than 12,00,000 people have been affected and more than 30,000 deaths have occurred. World Health Organisation (WHO) and various countries have declared COVID -19 as pandemic.

3.2. Impact on Global Aviation Industry

3.2.1 As per aviation experts, the COVID-19 pandemic has created the worst crisis ever encountered in the history of civil aviation

3.2.2 In order to curb the spread of the pandemic, many countries imposed restrictions on civil aviation operations which resulted in almost 60% of the world's civil aviation fleet being grounded. Further, the unabated spread of COVID has severely impacted demand for air travel. A recent consumer survey by IATA in end May-early June suggests that nearly 50% travellers would wait for 6 months or more before deciding to travel by air again.

3.2.3 A similar impact is estimated by S&P Global which in its report dated 28th May 2020 stated, "We now estimate global air passenger numbers will drop by about 50%-55% in 2020 compared with 2019, a far steeper decline than we anticipated in March. Given that a potential vaccine, widespread immunization, or treatments may still be far off, people may be unwilling to travel for fear of infection while flying or travelling abroad".

3.2.4 S&P Global's outlook for the airports noted that "…Airports across the world face a long, slow climb to recovery from the fall in traffic and revenues due to the COVID-19 pandemic lockdowns and travel restrictions... Notwithstanding the long-term infrastructure significance of airports, we expect their financial strength and flexibility will be eroded over the foreseeable future by the magnitude and duration of the current airport sector shutdown, an anaemic recovery, capacity restructuring, and heightened counterparty risks of airlines…."

3.2.5 S&P Global has also predicted that, "we expect a more prolonged recovery, possibly stretching through 2023, reflecting the many operational challenges and consumer behaviour unknowns".

3.2.6 ICAO in its report released on 7th July 2020, estimated that air passenger traffic may fall by 48%-61% in 2020 compared to 2019 and airports may see a drop of 57% in revenues compared to 2019.

3.2.7 IATA's latest estimates suggest that Airlines globally would incur a cumulative loss of over $84 billion during 2020.

3.3. Impact on Indian Aviation Industry

3.3.1 Indian aviation industry has been amongst the hardest hit by COVID-19 when compared to the other large aviation markets globally.

3.3.2 The civil aviation sector was already slowing down in FY 2019-20 with traffic growth cooling off from the unprecedented double-digit growth have dropped to single digits. A report released by ICRA quoted on COVID-19's impact on international traffic India as, "*India's international traffic growth has typically been much lower than the domestic traffic growth. During FY 2020, the overall international traffic growth stood at a meagre 0.9%, significantly lower than 6.1% growth in FY 2019*".

3.3.3 In the same report, the impact on domestic traffic was stated as follows, "In view of ongoing COVID-19 outbreak, the Governments of almost all countries have issued travel restrictions. Specifically, the Indian Government has stopped all international flights to and from India from March 23, 2020. The domestic travel was also temporarily ceased from March 25, 2020 till May 17, 2020. This has had a severe impact on air travel in March 2020, with the domestic passenger traffic witnessing a YoY de-growth of 33%".

3.4. Impact on estimated passenger traffic for 2019-20 and thereafter

3.4.1 As predicted by CAPA in a release during May 2020, "Indian aviation is expected to confront a series of challenges in the coming weeks and months, each of which could have a serious structural impact. The risks and implications are arguably under-estimated at a policy level". CAPA estimated that for the full year FY21, domestic passenger traffic may drop to 55 million and international traffic may drop to 20-27 million passengers implying an over 70% drop from FY20 traffic levels.

3.4.2 The recovery of India's civil aviation sector would be driven by broader economic growth, ability of airlines to absorb the COVID impact and policy support that may be extended by Government of India towards aviation sector. At this stage, the outlook for India's economic growth in FY21 appears fairly bleak with IMF, S&P and a number of Investment banks predicting GDP to degrow by close to 4%-5% while Government of India has already indicated that they may not be able to offer any direct support to aviation sector. Accordingly, most industry voices suggest that Indian civil aviation sector may take upwards of 3 years to recover to levels seen in FY20.

3.5. Measures taken by BIAL to handle COVID-19

3.5.1 BIAL adopted a 4-pronged strategy to cope with the situation:

- Single point coordination was identified - (Incident Command System) with a definite backup and business continuity plan for each critical role.

- Delegation of authority to deal with COVID – 19 issues/situation was assigned to GM ERCR- including financials, to take apt and appropriate measures to address the emerging risk immediately and in a timely manner.
- Quick decision making - based on rapid developments and on-ground execution on war-footing.
- Greater adaptability - to new, innovative strategies, evolving scenarios and lessons from the worst affected countries.

3.5.2 COVID-19 Management Team

- Steering Group, the strategic group comprising BIAL top management for directions and support – this was personally and directly led by the MD & CEO with the involvement of senior leadership team.
- A separate War group and the tactical group for rapid response, planning and implementing various measures, led by the GM and Head, ERCR was constituted who had monitored all the issues and guided the other members on a real time basis by hourly monitoring of the evolving situations.
- Stakeholder group with participation of airport, airlines, concessionaires and sovereign functions at BLR for a coordinated effort- this was led by the COO.
- Regulatory coordination with State and Central Governments, to ensure compliance to Regulatory guidelines at all points in time- this was led by GM & Head ERCR.

3.5.3 The key activities under the resumption plan under 7 broader areas are listed below:

- Resumption Plan – Operations
  - Contactless processing of passengers.
  - Integrating Aarogya Setu App with PNR database to ensure health status tracking and contract tracing.
  - Staggered slot allocation for the first 2 weeks.
- Resumption Plan – Screening
  - Thermal screening for all domestic and international passengers.
  - Temperature screening for CISF officials at 11 locations.
  - Temperature screening for all airport taxi drivers and supervisors.
- Resumption Plan – Social Distance
  - Floor marking across queueing point.

- Social distancing at the passenger seating in lounges and waiting area.
- Glass enclosures at Immigration, APHO, check-in, boarding gates and information counters.

- Resumption Plan – PPE and Safety
  - Wearing face mask by everyone as mandated by the authorities.
  - Temperature screening for staff before reporting to workplaces.
  - Personal Protective Equipment mandatory for housekeeping staff involved in sanitization & frontline & kitchen staff.
- Resumption Plan – Sanitisation
  - Hand sanitizer at over 500 locations for all passengers before entering terminal & outlet.
  - Disinfecting all passenger touch points frequently, including ATM, trays, rollers, trolleys, etc.,
  - Passenger check-in baggage of all arrival flights; departure flights, if required.
  - Disinfection of all airside, terminal, landside equipment, including fixed installations such as railings, walls, etc.
  - Airport taxi counter, the Quad, Ola-Uber & BMTC boarding zones every 6 hours.
- Resumption Plan – Outlets
  - Sealed and tamper proof packaging at all outlets.
  - Contact-less order through kiosks and mobile App.
  - Food in takeaway packs; immunity booster combos on offer.
  - Social distancing signs at all outlets.
- COVID-19 Employee Safety & Communication - Resumption Plan – Employee Care
  - Temperature Screening of employees at 17 locations across the Airport.
  - Sanitization of office premises & staff vehicles every day.
  - Personal protective equipment & sanitizers for all employees based on the risk exposure.
  - Minimum 30% employees work from home to ensure lower risk and thus Business Continuity.
  - Social distance at BIAL offices, and in employee transportation vehicles.

3.6. Impact on Estimations for FY 2021 and Third Control Period

3.6.1 Currently, aviation industry has been affected by events not seen before. Curtailed mobility of people due to the COVID-19 pandemic and related restrictions are expected to shrink air passenger traffic in both domestic and international sectors in a significant manner. The demand destruction has to be gauged only after resumption of full domestic air services. The current situation is primarily unidirectional flow of traffic, limited largely to essential travel and those returning to their home cities/ countries. And with the COVID-19 pandemic still raging in much of the world, a revival to pre-pandemic levels appears uncertain in the near term.

3.6.2 Only after the lockdown is fully lifted, interstate train services is fully restored, factories resume, and laborers return to site, the full impact of this pandemic on the Expansion project can be fully assessed. At this point on time, the likely completion of the Terminal 2 project is forecasted to be 31st March 2022.

3.6.3 As the situation continues to unfold, this MYTP filing will be updated appropriately, should there be further impact on Traffic and Expansion project timelines. Impact of COVID-19 pandemic on traffic projections, Aero & Non-Aero Revenues, COVID-19 related expenditure and completion of expansion projects on the currently estimated timelines and project cost may change substantially based on how the pandemic situation develops, severity of spread and duration of the pandemic effect in India & the world.

3.7. COVID-19 triggered cost savings measures adopted by BIAL

3.7.1 The global aviation sector has never undergone a greater shock than what it is experiencing today in the COVID-19 pandemic. Air travel is close to a standstill with airlines grounding most, if not all of their fleet, due to the closure of country borders and the consequent collapse of air travel demand.

3.7.2 Airports have high fixed costs associated with the provision and maintenance of infrastructure and services such as safety and security. These are incurred regardless of traffic levels. However, given the current stressed situation, it is imperative for Airport operators like BIAL, to achieve productivity improvement and sustainable reduction in costs. This is vital for lowering the burden on airlines and passengers, as the approved costs form a part of Aggregate Revenue Requirement of BIAL.

3.7.3 BIAL has been undergoing a transformation over the past few years. BIAL's vision for the airport has changed fundamentally over the past few years. The same is reflected in the way we have envisioned T2 terminal vis-à-vis Terminal 1.

3.7.4 BIAL is focussed on

- Embracing technology
- Passenger processing : ATRS, SBD and Digiyatra
- Investment in internal processes

- Investment in Customer interaction

3.7.5 We are embarking on BIAL 2.0 program to redefine/refine how we work and achieve cost savings and productivity improvements. To achieve the objectives, the action areas will be two fold – Quick win measures and Long term measures (mostly process & structure).

3.7.6 Quick win measures (one time and sustainable)

- Initiatives that can have a quick turnover with a focus into known specific areas
- Direct & Indirect costs, Procurement process and policy, etc.
- Review of contracts being renegotiated or expected to be awarded in the next 3-6 months:
- Explore room for modifying Procurement process and leveraging tools
- Control consumables & common heads spread across all workstreams

3.7.7 Long Term Measures

- Redesign to free up existing Resources
- Relook all structural, contractual and process related measures

3.7.8 Cost Reduction Measures Planned in BIAL 2.0 program:

Headcount and Personnel costs

- Freeze on all new hires for FY 2020-21.
- Increments not considered for FY 2020-21.
- Only rolled out new appointments are being on-boarded.

3.7.9 BIAL plans to achieve, the planned overall costs reduction of Rs. 25 crores in FY 20-21. Additionally, BIAL aims to achieve productivity improvements resulting in further costs reduction of Rs. 50 crores – Rs. 60 crores in the Third Control Period.

3.7.10 Due to the outbreak of the COVID-19 pandemic and its subsequent impact on the aviation demand / economy, BIAL has also relooked into its AERA approved and planned Capital Expenditure Investments and steps have been taken by BIAL to defer some of the AERA approved projects, as given below:

Table 2: Second Control Period projects deferred

S No	Package	Value in Rs Cr.
1	NSPR, Taxiways and Apron Development	55.56
2	T2 Apron – Phase 1	63.10
3	Aircraft Maintenance and Airport Maintenance	98.28
4	Airport and Airline Administration	61.18
5	Existing Runway and Taxiway Improvements	81.00
6	220 KV Substation	354.00
7	**Grand Total**	**713.12**

Table 3: Optimization of Projects planned earlier for Third Control Period

S No	Program / Projects	Value in Rs. Cr.
1	**Airfield Works**	
a)	Removal of section of Taxiway K between Taxiways A & B	4.41
b)	Connector Taxiway Between A & B East of TWY K	33.29

S No	Program / Projects	Value in Rs. Cr.
c)	Partial extension of Taxiway B between Taxiway B4 & K	230.21
d)	Partial Apron Development	242.94
e)	T1-T2 connector	160.00
f)	Partial extension of Taxiway B between Taxiway B2 & B4	190.72
g)	Parallel Taxiway A3 & A10	51.74
h)	Relocation of Existing Isolation Bay	29.58
2	**Support Facilities**	
a)	ARFF Training Academy	17.37
b)	Disaster Recovery Centre (Base Building)	13.98
c)	Landscape Works	35.00
	Grand Total	**1,009.24**

3.7.11 Hence, total Capex (approved and planned) amounting to Rs 1,722 crores. approximately has been deferred for future control periods by BIAL. This clearly demonstrates BIAL's commitment to tailor its capex program to traffic trends.

4. Legal / Regulatory Framework applicable for Tariff Determination for BIAL

4.1. Concession Agreement (CA)/ Project documents

4.1.1 BIAL was the first greenfield airport in India awarded through a competitive global bidding process for initial period 30-year concession, extendable for a further period of 30 years at the option of BIAL.

4.1.2 The CA has clearly classified and categorised the activities as being Airport & Non-Airport in a separate Schedule to the Concession Agreement, and charges as being Airport Charges and with Airport Charges a separate classification and definition of Regulated Charges and Other charges in Par IV, section 10 covering Financial provision of the CA. Together with CA a State Support Agreement, a Land Lease Agreement and Shareholders Agreement, all of which described the purpose and intend of the Parties

4.1.3 Part IV and Article 10 (Financial Provision) of the CA (10.2) provides that Airport Charges specified in Schedule 6 (Regulated Charges) shall be consistent with the policies of the International Civil Aviation Organization (ICAO).

4.1.4 According to Schedule 6 of the CA, BIAL shall be entitled to levy and recover from airline operators, passengers and other users and in respect of both domestic and international aircraft and passenger movements, at rates consistent with ICAO Policies, the following Regulated Charges: Landing charges, Housing charges, Parking charges, Passenger Service Fees & User Development Fees

4.1.5 Article 10.3 of BIAL's CA reads as follows: "BIAL and/or Service Provider Right Holders shall be free without any restriction to determine the charges to be imposed in respect of the facilities and services provided at the Airport or on the Site, other than the facilities and services in respect of which Regulated Charges are levied."

4.1.6 Section 13(1)(a)(vi) of AERA Act stipulates that AERA shall consider concessions offered by the State in an agreement, memorandum of understanding or otherwise. Hon'ble TDSAT has specifically held in the DIAL appeal, that AERA is required to respect rights/concessions flowing from lawful agreements. AERA should respect and give effect to the Concession Agreements.

4.2. Pre-Control tariff determination

4.2.1 Prior to the opening of the Airport, BIAL had submitted multiple tariff proposals to MoCA in connection with approval of levy of UDF.

4.2.2 In April 2008, MoCA approved the proposal for charging of UDF (on the basis of 30% hybrid till) @ Rs.1070/- (incl. of applicable taxes) per international departing passengers with effect from the Airport Opening Date - 24th May 2008) on an 'ad-hoc' basis (ref: F.No.AV.20015/003/2003-AAI dated 3rd April 2008).

4.2.3 Furthermore, BIAL had made several submissions to MoCA in connection with the levy of UDF on domestic passengers. Based on these submissions, MoCA permitted a levy of UDF of Rs. 260/- (incl. of applicable taxes) per departing domestic passenger, with effect from 16th Jan 2009 on an 'ad-hoc' basis (ref: F. No. AV.20036/007/2008-AD dated 9th January 2009).

4.2.4 While approving the above tariffs (on an ad-hoc basis), MoCA clearly communicated that the exercise of final determination of tariff will be taken up by MoCA/AERA on submission of audited project cost and other pending details from BIAL.

4.2.5 Hence, it is required that AERA completes the tariff determination for period even prior to AERA's incorporation, including compensating for the losses before airport opening date, AERA has determined the tariff only on adhoc basis.

4.2.6 BIAL had incurred losses prior to the commencement of Airport operations and prior to the First Control Period which should have been recovered during the subsequent years of operation of the Airport. BIAL makes its submission seeking to recover the losses incurred from its incorporation which are during the pre-control period because. The only way BIAL will be able to recover the losses and shortfall for the pre-control period through tariff determination exercise that was to be carried out by AERA and none-else.

4.3. National Civil Aviation Policy 2016

4.3.1 MoCA had released its National Civil Aviation Policy 2016 (NCAP-2016) in June 2016. In this Policy, as per Section 12 – (for) Airports developed by State Governments, Private sector or in PPP mode, MoCA has stated as follows:

> *"c) To ensure uniformity and level playing field across various operators, future tariffs at all airports will be calculated on a 'hybrid till' basis, unless otherwise specified for any project being bid out in future. 30% of non-aeronautical revenue will be used to cross-subsidize aeronautical charges. In case the tariff in one particular year or contractual period turns out to be excessive, the airport operator and regulator will explore ways to keep the tariff reasonable, and spread the excess amount over the future"*

4.3.2 Pursuant to the NCAP -2016, the Authority in its Order No. 14/2016-17 has stated that

> *"The Authority, in exercise of powers conferred by Section 13(1)(a) of the Airports Economic Regulatory Authority of India Act, 2008 and after careful consideration of the comments of the stakeholders on the subject issue, decides and orders that:*
>
> *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 guidelines of the Authority shall*

be amended. The provisions of the Guidelines issued by the Authority, other than regulatory till, shall remain the same."

4.3.3 This is being submitted without prejudice and as a matter of fact as reflected in the National Civil Aviation Policy 2016 which categorically states for future tariffs.

4.4. Treatment of 30% Cross Subsidy in calculation of Aeronautical Tax

4.4.1 MIAL in its appeal in TDSAT (Appeal No.04 of 2013) against AERA Tariff Order No. 32 /2012-13 for First Control Period had contended that if the 30% cross subsidization of non-aeronautical revenues ('S') is considered as a component for ARR, then, even for aeronautical tax computation, 'S' has to be considered as a source of revenue.

4.4.2 Hon'ble TDSAT in its order dated 15th November 2018, in the aforesaid Appeal held that there is merit in MIAL's contention that the cross-subsidy element of 30% needs to be considered in the calculation of aeronautical income tax.

4.4.3 BIAL submits following extract from the TDSAT order (ref no. order dated 15th November 2018) of Mumbai International Airport Limited (MIAL) on tax on non-aeronautical service:

"…. However, in respect of decision no. XV.a, the question of 'S' as an element of revenue pertaining to aero services for the purpose of calculating 'T' is remanded back. To this limited extent only, we direct AERA to consider this issue afresh through a consultative process in the next control period that may be falling for consideration."

4.4.4 BIAL notes that Hon'ble TDSAT has directed the Authority to consider this issue afresh through a consultative process. While the consultation paper on the said matter is awaited, the Authority has issued the Consultation paper of Delhi International Airport Limited (DIAL) for the Third Control Period vide CP. No. 15/2020-21 wherein the Authority has examined the matter of considering cross subsidy portion of NAR for tax purposes. The relevant extract of the proposal of the Authority in DIAL is given below:

"Authority proposes to determine aeronautical taxes for the Third Control Period by applying effective tax rate on the aeronautical PBT which is calculated by considering S factor also as part of the revenue base. Authority invites stakeholder views on the same and the final decision on whether to consider S Factor as part of the aeronautical revenue base for aeronautical tax determination shall be decided post the stakeholder consultation process. The aeronautical taxes for the purpose of tariff determination for the Third Control Period have been determined as nil which shall be trued up based on actuals."

4.4.5 AERA is bound to have due regards for the provisions of the judgement of the Tribunal during the process of tariff determination of other major airports. This was stated in the TDSAT Order dt. 24th May 2018 in AERA Appeal 3 of 2014 in the matter of BIAL where TDSAT had stated as under:

"It goes without saying any authority, much less statutory authority, which is to regulate these matters shall have due regard to all the provisions of law including the judgement of this Tribunal."

4.4.6 In view of the above proposal of the Authority in DIAL case and the pronouncement of TDSAT Order on MIAL, BIAL proposes to consider cross subsidy portion of NAR as part of the aeronautical revenue base, BIAL has also taken this principle for the purpose of its MYTP submission. BIAL further encloses herewith the legal opinion obtained on the subject as part of its submission as Annexure 3.

4.4.7 Accordingly, in computation of taxation, 30% share of Non-Aeronautical Revenue which is considered for cross subsidization of Aeronautical Revenues is being considered as part of aeronautical income statement for estimation of tax. This principle has been applied for true-up from Pre-Control period to the Second Control Period and in the computation of Taxation as part of the Regulatory Building Block for the Third Control Period.

4.5. Ring fencing of Non-Airport revenues

4.5.1 The powers of the Authority are as provided for in the AERA Act, 2008 and the Authority has been constituted with functional power amongst others to determine the tariff for the aeronautical services. The preamble to the AERA Act 2008 states, "*An Act to provide for the establishment of and Airport Economic Regulatory Authority to regulate tariff and other charges for the Aeronautical service rendered at the airport……*"

4.5.2 Further, Section 13 of the AERA Act, 2008 provides that tariff determination is a function of the Authority for which the Authority has been conferred with powers, *inter alia*, under section 14 of the Act. The Authority, therefore, has limited jurisdiction and it is impermissible for the Authority to directly or indirectly regulate or reckon non-airport activities in so far BIAL CA is concerned.

4.5.3 Therefore, activities carried out by BIAL other than core airport activities are not within the jurisdiction of AERA and cannot be reckoned for the purposes of tariff determination. Thus, revenues from Non-Airport Activities are completely ring fenced from the purview of determination of tariff for Aeronautical Services. Accordingly, no revenues from Non-Airport activities have been considered for the purpose of calculation and submission of Annual Revenue Requirement and these submissions are without prejudice.

4.5.4 Land Lease Rentals for the portion of land proposed to be developed by BACL will be reduced proportionately from the Land Lease Rentals cost at the time of true up of the building blocks relating to the third control in the next control period.

4.6. Elements of Aeronautical and Non-Aeronautical Revenues considered

4.6.1 According to Schedule 6 of the CA, BIAL shall be entitled to levy and recover from airline operators, passengers and other users and in respect of both domestic and international aircraft and passenger

movements, at rates consistent with ICAO Policies, the following Regulated Charges: Landing charges, Housing charges, Parking charges, Passenger Service Fees & User Development Fees.

4.6.2 Section 13(i)(a) of the Act provides that the Authority shall determine tariff for "aeronautical services". In the case of BIAL, since the CA specifically and categorically and without ambiguity describes that the Authority has the power to approve the Regulated Charges and in view of the fact that the Regulated Charges are clearly defined in the CA, the definition contained in Section 2(a) of "aeronautical services" as per the Act will not apply and only those services for which are classified as Regulated Charges under the CA are only are to be considered as aeronautical services for the purposes of tariff determination for Bangalore airport.

4.6.3 Section 13(i)(a) of the Act provides that the Authority shall determine tariff for "aeronautical services". In the case of BIAL, since the CA specifically and categorically and without ambiguity describes that the Authority has the power to approve the Regulated Charges and in view of the fact that the Regulated Charges are clearly defined in the CA, the definition contained in Section 2(a) of "aeronautical services" as per the Act will not apply and only those services for which are classified as Regulated Charges under the CA are only are to be considered as aeronautical services for the purposes of tariff determination for BLR airport.

4.7. Appeal against Order No. 8/2014-15 and Order No. 18/2018-19 pending before TDSAT

4.7.1 Being aggrieved by Order No. 8/2014-15 of the Authority for the First Control Period and Order No.18/208-19 for the Second Control Period, BIAL has filed an appeal before TDSAT vide Appeal No. 3 of 2014 and Appeal No.8 of 2018 respectively. The tariff order for the First Control Period and Second Control Period is sub-judice and is pending for final hearing at TDSAT.

4.7.2 The current tariff application of BIAL for the Third Control Period (1st April 2021 to 31st March 2026) is without prejudice to the matters appealed by BIAL in aforesaid Appeals.

4.7.3 BIAL reserves its right to amend /revise its tariff application based on the outcome of the aforesaid Appeal including legal and regulatory principles as may be decided by TDSAT or appropriate judicial forums in the aforesaid appeal.

4.7.4 BIAL has, in its current submission of MYTP for tariff for aeronautical services/Regulated Charges as defiled in the CA for Third Control Period, considered the positions that it has taken in its appeal before Hon'ble TDSAT and has accordingly filed the current MYTP submissions.

4.8. Order on Compensation in lieu of Fuel Throughput charges

4.8.1 MoCA vide letter NO.AV.13030/216/2016-ER (Pt.2) dated 8th January 2020 had decided to discontinue the levy of Airport Operator Charge or Fuel Throughput Charge (FTC) in any manifestation at all airports.

4.8.2 Para 4 of the said letter reads as follows:

"Keeping in view all aspects of the matter, in light of the need to uphold affordability and sustainability of air passenger and air cargo transportation as per the National Civil Aviation Policy 2016, it has been decided as follows:

- *Levy of airport operator charge or fuel throughput charge in any manifestation shall be discontinued at all airports, airstrips and heliports across India with immediate effect.*
- *AERA/ Ministry of Civil Aviation,* as *the case may be, should take into account the amount in this revenue stream and duly compensate the Airport Operator/ AAI by suitably recalibrating other tariffs during their determinations of airport tariffs."*

4.8.3 Considering the above policy decision of MoCA, the Authority vide letter No. AERA20015/ FT/2010-11Nol.ll dated 15th January 2020 advised all Major Airport Operators to implement the above said MoCA letter with immediate effect. AERA also advised major airport operators to submit their proposal for compensation, if any, due to discontinuation of Fuel Throughput Charges for consideration of the Authority.

4.8.4 Accordingly, BIAL , without prejudice toits rights, vide letter No. AERA/ Finance/ 2019-20/07 dated 29th January 2020 and mail dated 21st February 2020 had submitted its proposal seeking compensation for revenue loss on account of discontinuation of FTC at Kempegowda International Airport for the remaining period of the control period i.e.15th January 2020 to 31st March 2021.

4.8.5 The Authority considered the submissions made by BIAL and issued the Consultation Paper No. 21/2019-20 dated 5th March 2020.

4.8.6 The Authority stated that it has carefully examined the comments of stakeholders and noted that it "considers FTC as one of the aeronautical charges to recover the target revenue determined for the Second Control Period. The discontinuation of FTC from 15.01.2020 has created gap in actual revenue vis-a-vis the target revenue as per Second Control Period tariff order. The crisis due to COVID-19 outbreak has affected all the stakeholders across aviation industry and this may further impact the recovery of ARR. Hence any delay in implementation of this order is not appropriate in view of the capital investments planned and in progress at the airport"

4.8.7 Accordingly, the Authority has issued Order No 5/2020-21 dated 19th May 2020, to compensate BIAL to the extent of Rs. 136.82 crores by increasing the Landing charges and UDF for FY 2020-21.

5. Approach to preparation of MYTP for Third Control Period

5.1. Methodology/ Approach to preparation of the MYTP submission

5.1.1 BIAL has prepared the submissions considering the Concession Agreement and legal framework as detailed above and considering the Orders and Guidelines issued by the Authority and without prejudice.

5.1.2 Tariff Submissions have been made considering the Indian GAAP as the framework of accounting and reporting, while the Financials of the company are being prepared and approved under IND-AS Framework as required by the Companies Act.

5.1.3 Tariff submissions for true up of Second Control Period have been made considering the following:

- The audited Financials for the year FY 2016-17 to FY 2019-20 based on the IGAAP audited accounts. The same is considered in the Business Model for submission to the Authority.
- The audited Financial statements as per Indian GAAP are enclosed as Annexure 4.

5.1.4 For the estimate for FY 2020-21, BIAL has considered the past performance as well as the current trends to project the element of the building blocks .

5.1.5 Estimates and Projections for the 10-year Business Plan for the 3rd and 4th control period are made on a detailed evaluation by the Management after giving due consideration to the current prevailing scenario and past performance of the Company.

5.1.6 Traffic estimates for 2020-21 and the projections for the 5 years in the Third Control Period are made based on internal estimates and study. Variable Tariff Plan proposed by BIAL will be submitted later as part of the Annual Tariff Proposal after the ARR is determined.

5.1.7 Cost of Equity of 23.61% has been determined based on the study done by CRISIL. Report is enclosed as Annexure 5.

5.1.8 Capital expenditure estimates and details of projects proposed to be carried out as part of the Third Control Period have been made based on the detailed analysis by BIAL's internal estimates.

5.1.9 Projections for Operational Expenditure and Non-Aeronautical Revenues have been made on a bottom-up basis considering the current and proposed conditions at the Airport and considering commissioning of Terminal-2 and related projects together with carrying out improvements in Terminal-1. As detailed earlier, no revenues from Real-Estate/ Non-Airport activities have been considered.

5.1.10 BIAL also submits that taxation for the purpose of computing ARR has to be computed after considering the 30% of Non-Aeronautical Revenue cross subsidization as part of Aeronautical Profit & Loss statement as detailed above in Para 4.4 above.

5.1.11 The current MYTP submission for the Third Control Period includes true up of Pre-control, First Control and Second Control Periods as per BIAL's evaluation.

5.1.12 All elements of Regulatory Building Block are requested to be Trued up based on actuals.

5.1.13 Clause 3.4 of the Direction No. 5/2010-11 states that: "After issuance of the Multi Year Tariff Order, the concerned Airport Operator(s) shall submit to the Authority its Annual Tariff Proposal(s): Provided that an Annual Tariff Proposal shall be submitted at least 105 days prior to the start of the Tariff Year." Accordingly, Annual Tariff Proposal together with Variable Tariff Plan will be submitted after the approved ARR is evaluated by the Authority.

6. True up of Pre-control Period and First Control Period

6.1. Pre-control period shortfall and losses

6.1.1 KIAB commenced operations on 24th May 2008, with adhoc tariff being determined by the Ministry. The CA of BIAL provides for tariff determination either by the Ministry or by the Independent Regulatory Authority ('IRA') as the case may be. While ad-hoc tariffs were determined by the Ministry the final tariffs were to be determined during a subsequent period which was not done. The Authority has determined tariff effective from the First Control Period, effective 1st April 2011.

6.1.2 Accordingly, BIAL submits that the Authority is empowered to take into account pre-control period losses as final tariff determination prior to First Control Period was not completed.

6.1.3 BIAL had claimed pre control period shortfall and losses as BIAL operates under a regulated environment and therefore there is little or no scope of recovering such losses.

6.1.4 The Authority as per its Decision No.2 of the Order No. 8/2014-15 has not considered any pre-control period assessment for the First Control Period stating that

> *"The Authority notes that from the date the powers of the Authority under Chapter 3 of the Act were notified (this date being 1st September 2009) BIAL has not posted any losses in its Profit and Loss statements for the period 2009-10 and 2010-11. Hence the question of considering any Pre-control period shortfall for the purpose of determination of Aeronautical Tariffs for the current control period does not arise."*

6.1.5 Further, BIAL in its submission for the Second Control Period again reiterated the claims for reimbursement of pre-control period shortfall and submitted the true up for pre control period losses as part of its submission.

6.1.6 The Authority as per its Decision No.2 of the Order No. 18/2018-19 for the Second Control Period regarding the truing up for pre control period shortfall has stated that:

> *"i. To confine Its true up process to the First Control Period and to not consider any Pre-control period shortfall/ over recovery in computing the ARR for the Second Control Period.*
> *ii. The Authority notes that this matter is sub-judice and the Authority would take a suitable view in accordance with the orders of the Appellate Tribunal in this matter."*

6.1.7 BIAL claims that reimbursement of pre-control period shortfall has to be given as stated in the previous submissions. For the purpose of submission of MYTP for the Third Control Period, BIAL has included an adjustment in pre-control period shortfall based on BIAL's approach to the Regulatory framework as detailed in Para 4 above. We request the Authority to take into account and consider losses in determining tariffs.

6.1.8 Accordingly, computation of pre-control period shortfall, together with carrying cost as at the beginning of Third Control Period is as follows:

Table 4: Pre-control period shortfall with carrying cost as at the beginning of Third Control Period

Particulars (Rs. in crores)	2008-09	2009-10	2010-11
Average RAB	1,667.44	1,615.27	1,504.85
FRoR	9.46%	10.19%	11.20%
Return on RAB	134.87	164.61	168.59
Working Capital Interest	0.51	0.79	0.68
Depreciation	104.59	123.58	123.80
Operating Expenditure	176.87	136.83	141.17
Tax	0.81	-	0.12
Less: Non Aero Revenues	(40.01)	(52.12)	(62.04)
Add: Concession Fee	6.82	11.73	13.37
Aggregate Revenue Requirement	384.46	385.42	385.69
Actual Collections	170.58	293.15	334.24
(Under)/Over recovery	(213.88)	(92.27)	(51.44)
(Under)/Over recovery with indexation	(257.98)	(101.67)	(51.44)
(Under)/Over recovery till beginning of CP1			(411.09)
(Under)/Over recovery till beginning of CP3			(1,573.22)

6.2. True up of First Control Period

6.2.1 The Authority has considered true of First Control Period as per Order No 18/2018-19 as under:

> *"As per the provisions of the AERA Act, the Authority considers the services rendered in respect of Cargo, Ground handling and supply of fuel (CGF) as aeronautical services.*
>
> *4.1.15 ……Accordingly, the income from property development would be used to cross subsidize airport operations to the extent of 30%.*
>
> *"6.6.7 The Authority has decided to hence, compute shortfall over-recovery for the First Control Period considering the above and based on other changes made in this Order as elaborated below.*
>
> *6.6.7.1 Considering Lease rentals used for core Aero activities as Aeronautical. Refer Para 4.5.22 above*
>
> *6.6.7.2 Considering Utility recovery from Aero concessionaires as adjustment to Aero Revenues - Refer Para 13.6.10 below*
>
> *6.6.7.3 Considering "Net investment" in subsidiary for the purpose of computation of FRoR Refer Para 14.6.5 below"*
>
> *14.6.2 - ….the Authority had considered cost of equity at 16% in the Order of the First Control Period"*

6.2.2 BIAL has filed an appeal in TDSAT vide Appeal No. 8 of 2018 against the Order No. 18/2018-19 of the Authority for the tariff order for the Second Control Period. As the matter is sub-judice and pending for final hearing at TDSAT, BIAL has considered the true for First Control Period based on its regulatory principles as detailed in Para 4 above, pending the final outcome of the aforesaid appeal.

6.2.3 Computation of under-recovery for First Control Period as per the BIAL, is as follows:

Table 5: Under - Recovery calculated for First Control Period

Particulars (Rs. in crores)	2011-12	2012-13	2013-14	2014-15	2015-16
Average RAB	1,391.83	1,285.60	1,903.36	2,504.81	2,354.34
FRoR	13.20%	13.20%	13.20%	13.20%	13.20%
Return on RAB	183.77	169.74	251.31	330.72	310.85
Working Capital Interest	0.93	0.81	0.59	1.18	3.68
Depreciation	122.64	126.25	133.65	194.73	190.08
Operating Expenditure	166.48	233.77	221.36	264.70	264.30
Tax	2.42	-	-	3.59	41.17
Less: Non-Aero Revenues	(71.39)	(75.78)	(80.67)	(100.25)	(126.61)
Add: Concession Fee	14.80	14.43	15.20	23.35	28.39
Aggregate Revenue Requirement	419.64	469.22	541.44	718.02	711.86
Actual Collections	370.03	360.84	379.93	583.78	709.68
(Under)/Over recovery	(49.89)	(108.39)	(161.50)	(134.23)	(2.18)
(Under)/Over recovery with indexation	(81.47)	(157.24)	(206.96)	(151.96)	(2.18)
(Under)/Over recovery till beginning of CP2					(599.82)
(Under)/Over recovery till beginning of CP3					(1,234.73)

6.2.4 BIAL requests the Authority to consider the above under recovery for true up of the First Control Period at the time of determination for tariff in the Third Control Period.

7. True up of Second Control Period

7.1. Overview

7.1.1 The Authority, in its Multi Year Tariff Order for the Second Control Period (Order No. 18/2018-19), provided for true-up of the building blocks at the time of determination of tariff for the Third Control Period.

7.1.2 For the purpose of calculation of true-up, details as per IGAAP Financial statements from FY 2016 to FY 2020 are considered and are shown as "Actuals" in this section. The data for FY 2021 is based on projection of BIAL. Details relating to each building block are given below.

7.2. Traffic

7.2.1 As per Decision No.4 of Order No. 18/2018-19, the Authority decided:

"To consider traffic projections as detailed in Table 20 Para 7.7.6 above for determination of tariff for the Second Control Period.

To true up the traffic of the Second Control Period based on actuals, at the time of determination of tariff for the next control period."

Table 6: Traffic allowed as per Second Control Period Order

Particulars	UoM	2016-17	2017-18	2018-19	2019-20	2020-21
Domestic Pax	Mn	19.28	23.10	26.57	30.55	35.13
International Pax	Mn	3.60	3.81	4.27	4.78	5.35
Total Pax	**Mn**	**22.88**	**26.91**	**30.84**	**35.33**	**40.48**
Domestic ATMs	Nos	1,54,095	1,72,665	194,521	217,780	243,842
International ATMs	Nos	24,022	24,665	28,567	31,050	33,846
Total ATMs	**Nos**	**1,78,117**	**1,97,330**	**223,088**	**248,830**	**277,688**
Domestic Cargo	MT	1,19,878	1,28,504	139,990	151,579	164,296
International Cargo	MT	1,99,466	2,19,899	238,953	258,215	278,934
Total Cargo	**MT**	**3,19,344**	**3,48,403**	**378,943**	**409,794**	**443,230**

The Authority had considered the actual traffic for FY 2016-17 and 2017-18 at the time of determination of tariff for the Second Control Period.

7.2.2 The actual traffic until FY 2019-20 and the estimate for FY 2020-21, as evaluated by BIAL is as follows:

Table 7: Actual Traffic until FY 2019-20 and the estimates for FY 2020-21

Particulars	UoM	2018-19 Actuals	2019-20 Actuals	2020 -21 Estimates
Domestic Pax	Mn	28.83	27.78	7.41
International Pax	Mn	4.48	4.58	0.59
Total Pax	**Mn**	**33.31**	**32.36**	**8.00**
Domestic ATMs	Nos	211,795	202,055	68,926
International ATMs	Nos	28,456	28,996	9,472
Total ATMs	**Nos**	**240,251**	**231,051**	**78,398**
Domestic Cargo	MT	144,130	150,088	81,927
International Cargo	MT	242,650	224,093	1,71,400
Total Cargo	**MT**	**386,780**	**374,181**	**2,53,327**

7.2.3 Difference between actual/estimate and AERA approved traffic is given below:

Table 8: Deviations from approved traffic

Particulars	UoM	2018-19	2019-20	2020-21
Domestic Pax	Mn	2.26	(2.77)	(27.72)
International Pax	Mn	0.21	(0.20)	(4.76)
Total Pax	**Mn**	**2.47**	**(2.97)**	**(32.48)**
Domestic ATMs	Nos	17,274	(15,725)	(1,74,916)
International ATMs	Nos	111	(2,054)	(24,374)
Total ATMs	**Nos**	**17,163**	**(17,779)**	**(1,99,290)**
Domestic Cargo	MT	4,140	(1,491)	(82,369)
International Cargo	MT	3,697	(34,122)	(1,07,534)
Total Cargo	**MT**	**7,837**	**(35,613)**	**(1,89,903)**

7.2.4 The actual passenger traffic for FY 2018-19 showed an increase in domestic traffic while the international traffic was in line with the projections. Similarly, the growth in Domestic ATM was high on account of the proportionate increase in domestic traffic and the International ATM movement was in line with the projections.

7.2.5 The domestic and international cargo was more than projections by 7837 MT.

7.2.6 FY 2019-20 began with issues like suspension of operations of Jet Airways in April 2019, restrictions by DGCA leading to grounding of aircrafts on account A320 Neo Engine issues and the year ended with COVID-19 impact, affecting the demand severely for the last quarter of FY 2019-20. These issues negatively impacted the traffic numbers as compared to the approved traffic numbers.

7.2.7 In FY 20-21, COVID-19 impact has a devastating effect on the traffic as explained below:

- **COVID-19:** Hon'ble MoCA imposed a blanket ban on commercial international flights from 22nd March 2020 which continues as on date.
- Even though Domestic flights were banned with effect from 25th Mar 2020 , the fear of spread of COVID and contracting COVID while in an air journey had led to domestic traffic levels dipping by nearly 60% during the month of March.
- Economic Outlook for FY 20-21:

- The lockdown in India has resulted in near stalling of the economic activity and industrial production. International Monetary Fund (IMF) has forecasted 3% contraction in the world economy. Indian economy grew by 3.1% during Jan-Mar 2020, its weakest growth in 8 years. As per the latest forecasts by CRISIL in the report titled Minus 5, the Indian economy is expected to contract by (5%) in FY 20-21 due to the disruption caused by COVID-19 and the resultant lockdown.
- The pandemic has disrupted the major industrial production and supply chains. The demand for oil significantly reduced, thereby driving the oil prices to multi-decade low prices. The consumers reduced their spending to essential items thereby leading to a collapse in global demand.
- The collapse in demand will stifle cash flow for many industries, placing intense pressure on working capital, cash balances, and the ability to sustain operations. The reduction in disposable income is expected to reduce the consumer confidence level thereby adversely impacting future demand and investments.
- Domestic traffic is expected to decline by 70%-80% in FY 21 due to suspension of operations, capping of slots by Ministry of Civil Aviation to one-third capacity at all airports, guidelines on quarantining passengers, weak financial position of airlines, macro-economic factors etc. All these factors is estimated to result in a significant decline in traffic.
- The drop in international traffic is expected to be much more severe from FY19 levels with the uncertainties on International operations. International passenger flight operations between identified countries as part of air travel bubbles have been allowed from the latter half of July. However, there is lack of clarity on the resumption of scheduled international operation. With number of COVID-19 cases continuing to rise in India and globally, the demand for international travel is expected to be limited. The flights between countries in the air travel bubble may effectively serve as repatriation flights only with limited travel demand.

7.2.8 In view of the above factors, there has been a drastic downward revision in air traffic estimates for FY 2020-21 as detailed above. This will have an impact on the projections for the Third Control Period given the slow pace of recovery in the economy and aviation sector.

7.2.9 Assumptions for traffic estimate for FY 2020-21:

Domestic Traffic

- Traffic recovery is expected to be directly linked to the region's ability to contain COVID. State of Karnataka and city of Bangalore have seen COVID cases grow multi-fold since 2nd half of June prompting a lockdown in Bangalore from 15th July.

- COVID cases in India and Karnataka assumed to peak by Sep'20. There is uncertainly in regard to lifting of quarantine requirements by various state governments. BIAL has assumed a gradual removal of quarantine requirements by various state governments in Q3 FY21 for estimating the future traffic
- Government of Karnataka has imposed restrictions on number of flights arriving from 6 states viz., Delhi, Maharashtra, Madhya Pradesh, Gujarat, Tamil Nadu and Rajasthan since these states had a high number of COVID-19 cases. The restriction has impacted the number of flight operations from KIAB.
- It is assumed that removal of ATM caps is expected to increase capacity deployment in Q3 FY21.

International Traffic

- Scheduled international operations are expected to start with winter schedule (Nov'20). Repatriation flights to continue till then.
- Travel is expected to be limited to essential travel due to quarantine requirements that are expected to be imposed until COVID-19 vaccination is approved.

7.3. Status of Projects approved for SCP

AERA's Order

7.3.1 The Authority issued the following decisions on the proposed Capital Expenditure in the Second Control Period Order:

"6.a. Based on the material before it and its analysis, the Authority decides:

i. To consider Capital Expenditure as per Table 27 Para 7.2.10 above to compute Average RAB and return to be considered in determining ARR.

ii. To ask BIAL to submit detailed explanation and justifications should the cost incurred exceed 10% over the cost approved by the Consultant.

iii. To review and true up the Project Management Cost after the project is commissioned based on a study of the actual cost incurred and its reasonableness.

iv. To true up the Capital Expenditure on actuals at the time of determination of tariff for the next control period.

v. *To impose a penalty of 1% of the cost of Terminal-2 phase 1, if BIAL fails to commission and capitalize Terminal-2 phase 1 by March 2021. To not consider any additional Interest during construction (IDC)/ Financing allowance if the project is delayed beyond 31st March 2021."*

7.3.2 Para 9.6.6 of Order of Second Control Period is provided below:

"9.6.6 The Authority, in Consultation Paper had detailed its comments on GST. The Authority had noted that BIAL has submitted details on the additional cost on account of GST for which credit is not eligible for. The Authority accordingly decides to consider

additional 4% as tax cost on an estimate basis for the purpose of estimating the capitalization values on all line items of the approved Capital Expenditure detailed in Table 25. for the purpose of computation of permitted Capital Expenditure estimate. This will be trued up based on actual credit availment and capitalization."

7.3.3 The Authority approved a total infra cost of Rs. 9,307 crore as per Table 27 of Order 18/2018-19. The approved total infra cost of Rs. 9,307 crore includes Special repairs & Refresh capex, Sustaining capex, Special projects like Terminal refurbishment & Forecourts and Expansion projects that were estimated to be capitalized by end of Second Control Period (FY 2020-21). The Expansion projects cost estimates submitted by BIAL & reviewed by RITES includes certain projects capitalized in FY 2021-22 (beyond Second Control Period) and the same was not covered in Table 27 of Order 18/2018-19, however these details are covered in Table 25 of Order 18/2018-19 by the Authority.

7.3.4 The approved capex cost of Rs. 9,307 is a derivative of Table 25 and the same is detailed below:

Table 9: Reconciliation of Table 25 with Table 27 of AERA Order No. 18/ 2018-19

#	Particulars	Amount in Rs. in crores	Remarks
1	Expansion projects approved basis RITES report and savings submitted by BIAL	8,167	Refer Table 25 Para 9.2.13 of Order 18 / 2018-19
2	GST @ 4% included to the Project cost	327	Refer Para 9.6.6 of Order 18 / 2018-19
	Total Expansion project cost including GST	**8,493**	
3	Sustaining capex – I & II, Terminal refurbishment & Forecourts	310	Refer Table 27 Para 9.6.12 of Order 18 / 2018-19
4	Special repairs & refresh capex	1,219	Refer Table 27 Para 9.6.12 of Order 18 / 2018-19
	Total cost	10,023	
5	Expansion projects excluded in Table 27 of Order 18/2018-19 as the same is getting capitalized after Second Control Period	715	These are Expansion projects approved by AERA basis RITES report and savings submitted by BIAL that is forming part of Table 25 Para 9.2.13 of Order 18 / 2018-19
	Total Capex cost approved by AERA	**9,307**	**Refer Table 27 Para 9.6.12 of Order 18 / 2018-19**

BIAL's estimated cost at completion (EAC)

7.3.5 BIAL's Estimated cost At Completion (EAC) for Expansion projects includes projects getting capitalized after Second Control Period. Hence, the approved costs for comparison with EAC includes GST @ 4% amounting to Rs. 327 crore and approved expansion projects amounting to Rs. 8,167 crore totalling to Rs. 8,493 crore.

7.3.6 BIAL has carried out a detailed evaluation of the cost estimated at completion against each of the projects. Reworked approved cost has been computed considering the following:

- Approved Cost as per AERA is taken after considering the apportionment of site preliminaries and adding the 4% GST cost (Refer Para 9.6.6 of Order 18/ 2018-19) and 3% of contingencies to arrive at the revised approved cost for comparison.
- BIAL has evaluated the list of Projects and certain projects were not considered / deferred. Detailed explanation is given below in Para 7.3.7 below
- Accordingly, the net approved cost for Second Control Period is given in table below.

Table 10: Adjusted AERA approved cost after excluding deferred projects

Project (Rs. in crores)	Amount approved (Table 25 of order of CP2)	Amount approved after apportioning site preliminaries	Amount approved with 4% GST as per Para 9.6.6 of Order 18/2018-19	Revised approved amount after apportioning Contingency 3% for all projects	Projects not considered for execution (with 4% Tax Adjustment & 3% Contingency)	Adjusted AERA approved cost
	A	B	C = B*1.04	D	E	F = D-E
New south airfield development works	1,910	1,929	2,006	2,066	-56	2,011
T2 Apron 1	414	418	435	448	-63	385
Second Terminal Phase 1	3,334	3,367	3,502	3,607	-	3,607
Forecourts, roadways and landside development	1,124	1,135	1,181	1,216	-	1,216
Aircraft maintenance and Airport maintenance	130	131	137	141	-98	42
Rescue and Fire Fighting	7	7	7	7	-	7
Fuel storage & Distribution - Phase 1	-	-	-	-	-	-
Airport and Administration offices	57	58	60	62	-61	0
Utilities Phase 1	98	99	103	106	-	106
Existing Runway, Taxiway improvements	275	278	289	298	-	298
Site Preliminaries	73	-	-	-	-	-
Sub-Total	**7,423**	**7,423**	**7,720**	**7,951**	**-278**	**7,673**
Design/ PMC 5%	371	371	386	386	-	386
Contingency 3%	223	223	232	-	-	-
Add: Pre-Operating Expenses	150	150	156	156	-	156
Sub-Total	**8,167**	**8,167**	**8,493**	**8,493**	**-278**	**8,215**

Projects not considered for execution

7.3.7 Due to the outbreak of the COVID-19 pandemic and its subsequent impact on the aviation demand / economy, Projects have been re-evaluated and BIAL has decided to defer some of the AERA approved projects, as detailed below:

South parallel taxi extension to eastern boundary and Aircraft Maintenance (Rs. 56 Crores):

- As a long-term strategy, BIAL had identified land for MRO on the East parcel of the airport along with associated infrastructure i.e. taxiway connecting to the land parcel. However, based on the demand from airlines and MRO service providers, it was decided that this MRO/Hanger facility will be located in the Western side of the airport, adjacent to existing cargo buildings. Hence, the decision was taken to not execute this project in the current control period.

Taxibots Infrastructure & Additional GSE Parking (Rs. 63 Crores):

- Taxibot is a kind of Pushback tractor/tug which can be operated by the pilot and hence can be used for taxiing at normal speed without engine power to the holding point thereby saving cost on taxi fuel and also on emissions.
- For this technology to be effectively used and for the stakeholders to obtain the associated benefits it was important that the enabling ground infrastructure like road networks and business model for equipment purchase, testing, certification and large-scale deployment be tackled upfront. Accordingly, BIAL had developed its road networks design and strength to cater to this requirement.
- Timely availability of Taxibot was an issue considering the fact that it is being manufactured by very few vendors internationally and there is no production line in India yet. Hence, this Project could not be implemented in Second Control Period.
- Additional GSE Parking: Originally, GSE parking (approx. 4 acres) was identified during 2017 along with Taxibots requirement. It was felt that GSE parking area was not adequately covered in the original scope and hence an additional approx. 8000 sqm was added. However, upon reassessment now, the requirement is being deferred.

Airport Maintenance (Rs. 96 Crore):

- The expansion of Airport maintenance facilities is required to support NSPR and it is segregated into three functional areas - airside facility, landside facility and the E&M yards (i.e. central warehouse/ storage).The Airside and Landside facilities are located adjacent to the South ARFF and existing CISF barrack and E&M yards (i.e. central warehouse / storage) are located on the north-west portion of KIAB. However, due to weak demand arising out of COVID-19 outbreak,

BIAL has decided to accommodate landside maintenance facility temporarily inside T2 basement. Hence, this has been decided not to be executed in this current control period.

Airport & Airline Administration Building (Rs. 61 Crore):

- AAI (Air Navigation Service provider) had requested for additional staffing space for second runway related operations. As per the earlier Master Plan, an annexure building was proposed adjacent to the existing Admin building (Alpha 1). However, it was decided that BIAL would hand over the Admin building (Alpha 2) to accommodate AAI staffing requirement and BIAL would temporarily shift into another facility until the construction of the "New Airline and Admin building" (Alpha 4)

Best practices adopted by BIAL for Expansion Projects

7.3.8 BIAL submits that it has a robust procurement policy in place that upholds spirit of competitive advantage, global tendering, efficiency, ethics and governance. A detailed procurement policy is already in place and is diligently followed. A detailed budgeting activity is carried out and proposals are approved by the Board. Deviations from the budget have to be approved by the top management and justified. The process of incurring optimal costs is a tone which is set at the top and trickles down to the lowest levels of the organization. The procurement policy also undergoes continuous updation to ensure that the policy is robust and brings in the best practices in the industry.

7.3.9 It may be noted that EAC consists of the following:

- Awarded Contracts (commitments incurred): All contract awards / change orders are as per the Procurement Policy approved by the BIAL Board. Competitive tendering process has been carried out for all the packages and awards done based on financial and technical evaluations.
- Potential changes / change in scope towards the awarded contracts.
- Estimated costs for yet to be awarded works. The same is based on the following:
  - Scope and specifications of works
  - Type of contract package, duration for execution of the works.
  - Rates considered for estimate purposes are awarded works rate, Delhi Schedule of Rate (DSR) 2019, Market rates, internal analysis

in compliance to all changes / amendments to Operational codes and standards on construction.

7.3.10 Based on the above, the EAC for the projects approved in the Second Control Period is as follows:

Table 11: Comparison of Adjusted AERA Approved Amount with EAC

Project (Rs. in crores)	Adjusted AERA approved cost	EAC	Difference (Under)/ Over-run	Note for explanation
	F = D-E	G	H = F-G	I
New south airfield development works	2,011	1,980	-30	
T2 Apron 1	385	428	43	a) below

Project (Rs. in crores)	Adjusted AERA approved cost	EAC	Difference (Under)/ Over-run	Note for explanation
	F = D-E	G	H = F-G	I
Second Terminal Phase 1	3,607	3,566	-41	
Forecourts, roadways and landside development	1,216	1,875	659	b) below
Aircraft maintenance and Airport maintenance	42	41	-1	
Rescue and Fire Fighting	7	7	-	
Utilities Phase 1	106	104	-2	
Existing Runway, Taxiway improvements	298	217	-81	
Sub-Total	**7,673**	**8,218**	**545**	
Design	386	354	176	c) below
PMC		208		
Add: Pre-Operating Expenses	156	356	200	
ORAT	-	46	46	
Total	**8,215**	**9,183**	**968**	

Detailed explanations on the EAC

7.3.11 Costs for most of the programs are in line with AERA approved costs. Project / Program wise reasons for the deviations beyond 10% have been presented under the following heads:

- Project Costs
- Design Costs
- PMC Costs
- Pre-operative expenses (including ORAT)

7.3.12 **Project costs**

a) T2 Apron 1 (Rs. 43 crores)

- The major reason for the increase in costs is on account of having additional rainwater harvesting ponds. In order to meet the water requirement through sustainable additional 3 rainwater harvesting ponds are added on the landside. The total capacity of the ponds added is 227 ML. Construction of these ponds involve earthworks, pond lining, pump rooms and piping works. The cost towards this is Rs. 22.50 crores.
- The apron construction works were planned to be carried out using the Ground Support Equipment (GSE) tunnel or the Eastern Connectivity Tunnel (ECT). However, due to security reasons, approval from BCAS/CISF is awaited for using the tunnels for movement of men, materials and equipment for construction activities on 24x7 basis. This non-availability of the tunnels has resulted in a significantly longer lead of approx. 20 kms for movement of men, material and equipment. This has contributed to the balance overrun to be incurred.

b) Forecourt, Roadways and Landside development (Rs. 659 Crores)

- These projects are related to the complete landside road network that have been planned to be added or expanded to support the new Terminal 2 – Phase 1 and other new developments. A modern Multi-Modal Transport Hub (MMTH) has been designed to give the

best city/airport travel customer experience, connectivity between the terminals and easy transfer between various modes of transport.

- Deviation in cost is on account of the major facilities which have got added to the project cost as follows:
  a) Development of a Multi-Modal-Transport- Hub (Rs. 481.12 crores)
     - During the PAL 1 Capex submission, a basic Multi Level Car Parking (MLCP) was considered to support the Terminal 2 parking requirement. The Parking proposals made as per DPR submitted in Second Control Period MYTP proposal envisaged a T2 MLCP of approximately 64,000 Sqm with space for parking around 1800 cars for passengers and employees in the basement and at surface level. MLCP was designed to be an RCC framed (Basement + G structure). The Basement with 4m height & superstructure 3.90 m floor height was assumed. In addition to the above, provision of 6m long Boom Barriers at entry points & Parking Management System was also included.
     - However, during 2017-18, based on discussions with the Bengaluru Metro Rail Corporation Limited (BMRCL), airport metro connectivity was felt necessary. Hence the forecourt and land side facilities at BIAL had to cater to this new requirement. The terminal station was to be strategically placed so as to provide best access from both the Terminals- T1 and T2. This led to the redesign of the common areas between T1 and T2. The vertical alignment of the metro in the forecourt area of T1 and T2 also underwent a thorough review and evaluation. It was finally decided that a subgrade open to sky terminal metro station would do best justice from a passenger facility and accessibility point of view along with optimum utilization of land. The concept further evolved into a Multi-Modal Transport hub, which could accommodate private vehicles, taxis, city buses and the metro rail.
     - The development of the MMTH evolved on account of the following:
       - MMTH to be a passenger-oriented and a focused transit node for the city. Connections between the terminals and the transportation hub are a key component of the passenger experience and overall airport vision.
       - Apart from arriving and departing passengers, the MMTH would cater to the airport community as well as the visitors from the city. Thus, the services of metro, bus, app taxi, APM and bag drop became core to the MMTH.
       - Metro: BMRCL would have a metro station terminating at KIA and will be the primary transportation facility within the MMTH. All passengers, regardless of terminal, could arrive at the Airport Metro Station.
       - Bus: Intercity bus pick-up and drop-off would be located within the MMTH. Facilities shall include loading bays, passenger waiting areas, ticketing areas,

and office facilities. On-airport shuttles may also be located at the bus kerb, either for passengers going to the terminals or employees going to various work airport locations.

- App Taxi: It is proposed that each terminal have its own app taxi loading zone. The app taxi loading zone in the MMTH would primarily serve T2 passengers as well as other passengers arriving via metro or intercity bus.
- Automatic Passenger Movement (APM): The MMTH is designed to allow for future introduction of landside APM services, connecting to existing and future facilities such as terminals, commercial areas, and passenger services (such as remote parking or rental car facilities) and the requirement is factored in the MMTH.
- Bag Drop: Bag drop facilities are required to connect to the T2 baggage tunnel. The need to reserve a baggage connection to T1 is also factored in, given that there would be a need to renovate T1 in future and allow for such a facility in future.

- The following key elements have been synthesized to optimize functionality and throughput, while creating an architectural framework which is dynamic and appealing:
  - Terminal roadways entering and exiting T2
  - Internal roadways connecting passenger-facing ground transport facilities, and goods flow
  - Multi-Storey Car Park
  - Private Car Pick-Up
  - App-based taxi pick-up
  - Bus Station
  - Metro Concourse and Platform
  - Inter-Terminal Connecting Bridge
  - Inter-Terminal Transfer Facility
- Baggage check-in facilities were also planned to be provided at the terminal metro station. It was also important to have a free, seamless and safe pedestrian walkway connectivity between Terminal T2/ Metro Station / T1/CUP such that passengers/staff/other service providers can have a hassle free and safe walking experience.
- In order to meet all the above-mentioned requirements, the complete redesign of the area resulted in the following facilities:

- Baggage processing at the minus level 3 of the MMTH basement. From here, one tunnel is planned towards the T1 Terminal and the second tunnel connects the T2 Terminal.
- Two basements for car parking
- Part of the basement number one for the bus parking.
- Common services areas for the metro and the MMTH.
- A level 0 walking area connecting the Terminal 2, MMTH and Metro.
- An elevated pedestrian walkway connecting Metro &Terminal 1.
- Terminal metro station as a subgrade open to sky metro station with platform screen doors and the MMTH / Metro interfacing and enabling works.
- The rainwater harvesting ponds re-orientation

b) Additional Landside Facilities (Rs. 177.44 crores)

- The reasons for the deviations are as follows:
- At the planned Trumpet expansion, land acquisition was to be carried out by NHAI. The Way Leave Charges towards the acquisition was borne was BIAL. The cost incurred is Rs. 8.75 crores.
- At the time of finalization of Metro Terminal Station, it was found optimum to align the road network connectivity to the Terminal 2 along with the metro vertical alignment. At the time of MYTP submission for Second Control Period, elevated road network was considered to connect to/from T2 Terminal from the existing ATC tower. In the current scheme the road network connectivity to/from T2 reaches approx. minus 6 metres at the current ATC tower and continues at a minus 6 metres till it reaches T1 arrivals road. From here it again starts to ramp upwards towards the Terminal 2. Deep drains had to be added to the list of projects due to the shift from elevated network to a -6m level network.
- Based on the development plans and further detailing to meet the connectivity requirements, there is an increase in the road development area by approx. 20% as compared to the areas that had been submitted as part of the earlier submission. This increase has resulted into an additional cost of approximately Rs 90 crores.
- A major CISF checkpoint for a 10-lane road system along with bollards are planned on the main access road to monitor and control the access to/from the terminals. This is facility is to meet the security requirements. This checkpoint will be equipped with offices, checkpoints, CCTV cameras, bollards, parking spaces etc. and is designed for 24x7 operations. The EAC towards this entire arrangement is Rs. 12 crores.
- A Vehicular Underpass (VUP) has been added to cross beneath the main access road from the north cargo road to the southern access road. This is a 2-lane vehicular

under pass and the total length of the pass is 380 metre Two tracks of the metro along with the road network to the terminals passes above the underpass. The VUP is an asphalt road, with drains, steel lighting and other road furniture. The clear width at the VUP is 10.5m and approaches have a width of 7.5m.The EAC here is Rs 30.14 crores.

- A pedestrian walkway facility has been added for safe and seamless pedestrian access from the car park to T1 forecourt. This is semi enclosed facility with elevators, escalators and travellators. Landscaping has been added to the walkway. The total length of the pedestrian walkway is 450m. The breakup is elevated walkway of 240m length, 70m long bridge crossing the main access road and 140m of at-grade portion. This facility is planned to have 4 elevators, 2 escalators and 4 travellators. The EAC here is Rs 41.04 crores.
- Other important features of the Landside Facilities
  - Curved street lighting is being considered as against the standard light poles. As regards the Elevated Roads, special architectural lights are planned. These include pier and deck girder uplights, LED lighting for the full length of the flyovers.
  - A landscape plan along the main access road has been planned from start of the road network within KIA till the Terminal 2.
  - Latest and modern ICT systems is planned for effective CCTV coverage and data storage for the landside.

c) Existing Runway, Taxiway improvements (Savings: Rs. 81 crores)

- BIAL has carried out the following measures to achieve this reduction in project cost:
  - Based on the revised masterplan finalized in 2019, it is noted that the planned traffic capacity as submitted for CP-2 can still be achieved even without executing the south parallel taxiway and the two connecting taxis (connecting existing taxiway and runway).
  - Savings are on account of cancellation of these works which will not affect the planned airside design capacity.

7.3.13 **Soft Costs:**

- The Authority had noted to review and true up the Project Management Cost after the project is commissioned based on a study of the actual cost incurred and its reasonableness
- The total soft costs approved by AERA was Rs. 542 crores, comprising design, project management cost (PMC) and pre-operative costs. The EAC for the same amounts to Rs. 956 crores. This amount is divided into the following heads and detailed explanation of the total EAC is elaborated below:

Table 12: EAC for Soft Cost

Particulars	EAC (Rs. in crores)
Design cost	354
Project Management Consultancy cost	
- Till March 2021	159
- From April 2021 to March 2022	50
Pre-operative cost	
- Till March 2021	283
- From April 2021 to March 2022	73
ORAT	46
Total	**956**

- Design cost:
  - The above EAC of Rs. 354 crores includes a committed design costs of Rs. 328 crores for major designs activities which have been awarded towards the following Projects:
    - Terminal 2 – Phase 1
    - NSPR and associated airside works
    - MMTH & landside design services
    - Landscape design
    - Provision for specialized design services: peer review and study, third party design checks.
  - Summary of key costs included in EAC of Design is as follows:

Table 13: Key costs with PO value of more than Rs 5 crores included in EAC of Design

Scope of work	PO Value Rs. in crores
• Lead consultant for T2 • Schematic design • Architectural & Engineering Design • Detailed Design, Planning and designing of Transportation Hub etc. • Initial cost plan and development of procurement and construction strategies, submit tender documents & draft specifications.	182.11
Earthwork, Rehabilitation & upgradation of existing north runway, Designing of T2 apron and GSE Underpass, Safety assessment	47.07
Providing cost estimation, cost models and cost planning inputs, Detailed design services for various SAR, Electrical, Structural, Utilities etc.	25.70
Landscape – Concept and Schematic Design	19.47
Baggage Handling Design	9.71
Field and Topographical survey etc.	5.00

- Project Management Consultancy (PMC) Cost:
  - PMC has been engaged for overseeing and managing the project. Summary of key costs included in EAC of PMC cost is as follows:

Table 14: Key costs with PO value of more than Rs 5 crores included in EAC of PMC Cost

Particulars	PO Value Rs. in crores
PMC for NSPR and other Airside works, Terminal-2 etc.	141.86
Consultancy Service-T2,NSPR & associated work	19.04

- Pre-Operative Cost:
    - BIAL has undertaken an integrated large-scale Airside and Terminal development program with associates road and other infrastructure facilities comprising of more than 80 sub-projects. Such a mega scale development program has the following requirements to be adhered to:
        - High safety standards (target zero)
        - World class quality
        - Specialized and customized construction works
        - Challenging and aggressive time schedule
        - Delivery to budget
        - Interdependent and large-scale works undertaken at the same time across the premises – airside, terminal and landside.
    - Resources required are specialized by nature for managing such large-scale expansions. Due to the above requirements, BIAL had to ensure proper staffing to achieve the quality expectation as set out in the scope and specification for a world class project delivery.
    - BIAL had to work out a judicious mix of PMC (specialist and short term) staffing and own staffing (long term requirements) to meet these safety, quality, time and cost challenges.
    - BIAL has an exclusive team of Planning, Design, Construction, Airport Systems, Quality, Procurement, Contract Administration, Project Control besides support services like HR and Finance. This team is totally dedicated to development of the project. Besides, specialists are also hired to support the existing project team. The salaries and office related expenses of this team are 'Pre-Operative Expenses'. It is pertinent to submit that the team is involved from a pre-concept stage starting with design, planning and adding to that the service support teams like Procurement, QA, HSE, Project Controls etc., besides construction teams as and when required. Besides, some specialists in areas like design, airport systems etc., are being roped in from PMC agency wherever required.
- Operational Readiness and Transition (ORAT) was not provided as part of the PAL 1-Capex submissions. These are incurred towards trials, customization of the airport staff/airline community towards smooth operations of various project facilities such as the runway, terminal 2, etc., from the day of operations. Break-up of the costs incurred in this respect are as follows:

Table 15: Break-up of ORAT Cost

Project	Total (Rs. in crores)
ORAT Core Team	7.55
ORAT SPOC's	16.64
ORAT Delivery specialists	12.90

Project	Total (Rs. in crores)
Facilities for training rooms	1.25
Cost of External Trainers	1.25
Preparing footprints, barricading, systems operating costs	2.00
Transportation required for taking staff & Public Volunteers to site for trials	0.50
Fees for facilitating and extending support services for trials	2.00
Signages ,folders, Hard Helmet , jackets & safety shoes	0.50
Bags, Boarding cards, Mock up's, Megaphones & other materials for Trials	1.00
Vehicles for site	0.55
Total	**46.14**

7.3.14 The Authority allowed in the Second Control Period order, for Design / PMC and Pre-Operative Expenses only 5% and 1.74% respectively. As against this, the EAC is 11.63%. AERA had noted that the costs would be trued up based on its evaluation of reasonableness. At the time of issuance of Second Control Period Order, BIAL had stated that the reference of using AAI Airports by the Authority for comparison purposes were incorrect.

BIAL Benchmarking study on soft cost:

- BIAL has carried out benchmark study by engaging M/s Turner on various Airports – India and International Airports as well as other mega infrastructure projects in India and South-east Asia. Report of M/s Turner is enclosed as Annexure 6.
- The RITES Evaluation report on the soft costs compared BIAL expansion project with other AAI airports as given below:
  - *Jaipur International Airport, Rajasthan (JAI)*
  - *Chennai International Airport, Tamil Nadu (MAA)*
  - *Lokapriya Gopinath Bordoloi International Airport, Guwahati, Assam (GAU)*
  - *Tiruchirappalli International Airport, Tiruchy, Tamil Nadu (TRZ)*
  - *Chaudhary Charan Singh Airport, Lucknow, Uttar Pradesh (LKO)*
- There is a noted difference in the scale of work performed in each of the above-mentioned airports vis a vis BIAL's expansion Project and hence, the comparison is not appropriate and fails to factor the complexities involved in BIAL's expansion project. The extract of Turner report elaborating the differences in scope and scale of works across these airports vis-à-vis BIAL is given below.

Table 16: Summary of Facilities in Airports chosen for benchmarking

Parameters	BLR-T2	JAI	MAA	GAU	TRZ	LKO
Airside	1) New 4 Km CAT II IB Runway 2) Aerodrome Reference Code F runway 3) Crossfield Parallel Taxiway 4) Additional 39 remote parking stands 5) Additional 14 contact stands	1) Runway expansion from 9,174 ft to 11,500 ft 2) CAT II lighting systems and CAT II ILS for Code E Aircraft	1) Strengthening of TWY's 2) Construction of two TWY's 3) Addition of RET's	1) Extension of RWY for Code E 2) Construction of parallel TWY	1) Apron for 10 Code C stands 2) AGL and perimeter lighting 3) New ATC (Air Traffic Control) Tower cum technical block 4) Isolation bay	1) Parallel taxi track 2) Extension of isolation bay 3) 8 remote stands for Code C aircraft

Parameters	BLR-T2	JAI	MAA	GAU	TRZ	LKO
	6) ARFF Building 7) AMB Building				with link taxi track	
Landside	8) MAR 10-lane expansion from highway to terminal 9) SAR addition 10) Multi-Modal Transit Hub with retail, parking, and metro connection.	3) Development of four-lane vehicular road from Terminal Building/Car parking 4) Multilevel car park for at least 2000 cars and surface parking for VIP cars & 10 buses.	4) Multilevel car park with amenities for at least 2000 cars and surface parking for VIP cars & 10 buses.	3) Development of four-lane vehicular road from Terminal Building/Car parking 4) Multilevel car park with all amenities for at least 1500 cars and surface parking for VIP cars & 10 buses.	5) New 4 lane approach road 6) Car parking of Multi-Level Car Parking type (750 cars, Taxi - 250 cars and bus parking - 10 nos')	4) Development of four-lane vehicular road from Terminal Building/Car parking 5) Multilevel car park with all amenities for at least 1500 cars and surface parking for VIP cars & 10 buses.
Terminal	11) New terminal of 255,000 m2 12) Consist of Central Utility Plant 13) It has both International and Domestic Departure 14) 95 Check-in/boarding stations CUPPS/CUSS 15) 9 baggage carousels 16) E-gates	5) Total expansion of 102,500 m2 of terminal area 6) Sub-station, A/C plant room and related service facilities 7) It has both International and Domestic Departure	5) It has 168,800 m2 of Terminal area overall 6) It has both International and Domestic Departure 7) This airport has 104 check in counters	5) Overall Terminal area in 16,668 m2 6) Sub-station, A/C plant room and related service facilities 7) It has both International and Domestic Departure 8) The check in counters are 24	7) Terminal expansion area of 60,723 m2 8) It has both International and Domestic Departure 9) The check in counters are 20	6) Terminal expansion of 100,000 m2 7) It has both International and Domestic Departure

- The difference in scale of work performed in each project, when compared with expansion of BIAL T2 and NSPR is specifically to be noted in terms of total terminal area, the scale of check-in counters, scope of landside works, and overall airside work.
- Turner in its report has further stated that:
- It is noted that none of the projects compared in RITES included a new runway or similar scale of airside works. Key differences noted by project parameter:
    - Airside
        - *Only the BIAL expansion project has a new runway and significantly more taxiways than the next closest project.*
        - *Number of aircraft parking stands on BIAL is over 5x the size of the next closest project (BLR – 53 stands, TRZ – 10 stands)*
        - *The AGL systems are most stringent on the BIAL project (CATIIIB / Code F) than any other projects.*
    - Landside
        - *Size of landside scope of work is significantly larger on BIAL project than others. BIAL has a 10-lane road and next largest development has a 4-lane road.*
        - *AAI projects compared have a multi-level car park, while BIAL project has a multi-model transit hub which includes metro rail, retail, and parking. Substantially higher interfaces and complexities.*
    - Terminal

- *BIAL terminal project is over 50% larger than the next biggest terminal project (BLR – 255,000 m2 vs. 168,800).*
- *Architectural features like Bamboo finishes (both ceiling and column wraps), LED walls, WOW elements, Internal waterfalls of more than 30 ft within terminal area are very unique elements that are no match to other terminal projects.*
- *The structural steel design, façade systems and design of roofing with skylights (percentage with entire roof) are few listed challenges in BIAL makes it significantly more complex than the other terminal projects…."*

- M/s Turner has considered the following detailed list of criteria while selecting of airport projects for comparison:
  - Airports in Tier 1 cities (HRA classification X cities)
  - Hub Airports
  - Similar global recognition from external agency (Based on SKYTRAX)
  - Comparable size of development
  - Fast paced construction projects
  - Sustainable design (LEED rating)
- This criterion was determined by evaluating cost drivers for airport projects. For example, the needs and size of an airport in a Tier 1 city are different from the needs and size of airports needed to support Tier 2 cities. Projects of a similar size both from a passenger capacity and terminal size, similarity in terms of scale of construction, unique challenges faced due to the complexity and the size of development along with quantum of time were considered for this benchmarking process. With due consideration of the benchmarking criteria for this study, following eligible airports were identified from India and Middle East and Asia (MEA):
- List of Airports chosen for benchmarking:
  - Indira Gandhi International Airport, Delhi - Terminal 3 (DEL)
  - Chhatrapati Shivaji Maharaj International Airport, Mumbai – Terminal 2 (BOM)
  - Rajiv Gandhi International Airport, Hyderabad – Terminal 1 Expansion (HYD)
  - King Abdul-Aziz International Airport, Jeddah, Kingdom of Saudi Arabia - Terminal 1 (JED)
  - Tan Son Nhat International Airport, Vietnam - Terminal 1 (SGN)
- Further, some of the major infrastructure projects in India were also identified for analysis. The commonality of these projects to the airport projects are largely due to the complexity of planning and construction, employment of world-class consultants and large-scale competitively bid contractors. List of Infrastructure projects chosen for benchmarking:
  - Mumbai Trans Harbour Link
  - Chennai Metro Phase I
  - Mumbai Bandra – Worli Sea Link
  - Statue of Unity

- Summary of Findings detailed in the report is given below:
  - From the airport projects within India there are only four airports ranked within the Skytrax 100 rating: Delhi, Mumbai, Hyderabad, and Bangalore. These terminals achieve the rankings primarily due to customer experience, which has a correlation to high-end architectural finishes and imported materials, along with operational excellence due to increased design and planning of the terminal space. Selecting airports that meet these criteria allow for a focused comparison of similar airports that are leading the Indian market in aviation from a global standing.
  - In terms of capital expenditure on a per person basis, BIAL's Terminal-1 cost per MPPA is one of the lowest vis a vis the other international world-class airports considered, as is shown below:

Table 17: Total Cost per MPPA (Rs. in crores) without Inflation Adjustment

Overall cost Parameters	DEL	BOM	HYD	JED	SGN	BLR
Passenger Capacity (MPPA)	34	40	9	30	10	27
Terminal Cost (in INR Cr.)	7,046	5,665	1,555	14,427	1,668	3,884
Total Cost per MPPA (in INR Cr.)	207	142	173	481	167	144

  - The construction completion rate has a direct relation between the costs of oversight required for completion. Design costs are typically higher as the level of design must be to a level of understanding and completion that can support fast-paced construction, additionally pre-ops and PMC costs are higher due to the amount of people (more man months due to overlapping resources), equipment, and infrastructure required to support accelerated construction. This is a significant difference from other airport projects, which are delivered at a slower rate of construction and have lower Design, Pre-Ops, and PMC costs.
  - When looking at the range and average of pre-ops, PMC, and design costs based on hard cost of projects that achieve similar global rankings, cost per passenger, timeliness of construction, and LEED rated facilities in India is as follows:

Table 18: Acceptable range of soft cost as per the Turner report

Soft Costs	Range	Average
Design & PMC	5.1 – 11.1%	8.03%
Pre-ops	3 – 8.9%	5.63%
Total	**10.1 – 20.0%**	**13.67%**

- Hence, the total soft cost for BIAL as a % of the EAC of 11.63% is within the soft cost benchmarked with leading airport and infrastructure project in India and globally. Further, the break-up of individual elements of soft costs (Design & PMC, Pre-Operative cost)is also well within the average levels shown above

Time Delay arising out of Pandemic and consideration of additional PMC/Pre-op cost

- The Authority had stated that it would impose a penalty of 1% of the cost of Terminal-2 Phase 1, if BIAL fails to commission and capitalize Terminal-2 Phase 1 by March 2021 and to not consider any additional Interest during construction (IDC)/ Financing allowance if the project is delayed beyond 31st March 2021
- After the order was issued, the Authority vide letter no. F.No. AERA/20010/MYTP/BIAL/CP-II/2016-17/Vol-V dated 13th September 2018 (refer para 3) clarified that if the delay in completing the project is beyond the control of BIAL and is properly justified, the same would be considered while truing up actual cost at the time of determination of tariff for the Third Control Period in respect of IDC and PMC.
- BIAL estimates that there will be a delay in commission of Terminal-2 Phase 1 and allied projects on account of the COVID-19 pandemic. The key reasons for the delay are on account of the following:
    - **Supply chain Issues on imported long lead items** – Items imported from China and other countries delayed
    - **Supply chain issues on local procurement** – Lockdown has affected movement of goods
    - **Anticipated design changes** – Post COVID-19, there is a significant change in the facilities **required** in airports for seamless air travel. E-Gates, self-bag drops, etc. have now become the order of the day and is the "new normal". T2 is proposed to be compliant with these changes and thus has led to design changes.
    - **Availability of Labor** – Majority of the migrant laborers have returned to their hometown during the time of **epidemic**.
- A detailed explanation of the impact of the material, labour issues, procurement delays and suspension of work is enclosed in Project Schedule Impact analysis report in Annexure 7.
- Meanwhile, BIAL vide e-mail dated 6th May 2020 has updated the Authority on the project progress given the COVID-19 situation. BIAL submitted that the lockdown imposed as a consequence of COVID-19 pandemic spread and the various supply chain disruptions substantially impacted the progress of the construction of the expansion project.
- Considering the above explained reasons for delay in completion of Terminal-2 Phase 1 Project by 31st March 2021, BIAL appealed to the Authority to waive 1% penalty that the Authority decided to impose vide order 18/2018-19 in the event the proposed capex was not completed by 31st March 2021.
- The Authority, vide its reply dated 15th May 2020 stated thus,

    "….. AERA would take into consideration justified delay in projects i.e. delay beyond the control of the Airport Operator and would be dealt on merits."

- BIAL is taking every effort to re-commence work on the proposed projects to minimize the delay in completion.
- Considering the fact that COVID-19 is a pandemic (as per WHO) and is declared as an epidemic by the National Disaster Management Authority (NDMA) under the Government of India, it will be against natural justice and sound logic for BIAL to be penalized for the delay that has happened, on account of the epidemic and the various governmental notifications issued which has resulted in stoppage of and reduced site construction activities.

BIAL's submission with respect to Project cost

7.3.15 In view of the above submissions, we, request the Authority to consider the following:

- o Approve the Project cost as per the EAC submitted by BIAL including Design & PMC and Pre-operative expenses.
- o Waiver of 1% penalty for delay in completion of Terminal-2 project by 2020-21

7.3.16 Of the project costs as above, costs relating to New South Parallel Runway, Existing Runway/ Taxiway improvements, Rescue & Firefighting and T2-Apron projects have been capitalized in the Second Control Period. The other Projects are being capitalised in the Third Control Period.

Special Repairs

7.3.17 Comparison of special repairs – as approved by AERA and incurred during Second Control Period is as given below:

Table 19: Amount incurred vs Approved by AERA – Sustaining Capex

Sustaining Capex/CWIP/other projects	16-17	17-18	18-19	19-20	20-21	Total
Approved/ Proposed (Rs. in crores)	224.84	219.84	179.90	394.69	510.45	1,529.71
Spent / estimated (Rs. in crores)	225.70	105.24	159.51	349.15	718.68	1,558.29

Table 20: Breakup of Key Sustaining Capital Expenditure

Approved Spend	Rs. Cr.
Terminal Refurbishment	95
Forecourts and related projects	96
Express Cargo	82
ITI Project	168
Aadhaar enabled entry and Biometric boarding; enhanced hand baggage screening system	60
West Apron	44
South west connectivity	23
Sub-station works	25
Eastern Tunnel - Enabling works	80

7.3.18 Detailed explanation on certain changes in Sustaining Capex activities is as below:

220 KVA sub-station

- BIAL had made a submission for need to construct a 220KVA substation within the Airport to cater to the required demand of 33 MVA due to KERC regulations which stated that any demand above 20 MVA, shall be provided by the Power distribution company at 220 KV level only.
- BIAL had multiple discussions with Karnataka Power Transmission Company Limited which agreed to establish a 100 MVA additional transformer on lease basis and deliver the required 33 MVA power from their 220/ 66 KV substation till BIAL establishes 220 KV substation for a maximum demand of 33 MVA.
- While BIAL can meet their initial requirement of T2 phase 1 and associated loads within 33 MVA, BIAL envisages further development of the airport during the 4th control period.
- Hence, while an amount of Rs. 354 crores was considered as part of Sustaining Capex cost during the control period, only Rs. 25 was incurred in minor modifications in the Second Control Period.

Note on Eastern Tunnel:

- Cost of Eastern Tunnel development of over Rs. 1,000 crores was included as part of the additional Projects submitted to the Authority during evaluation of proposal of Second Control Period MYTP. The current NH44 through the existing trumpet and through SW connectivity road is the only external access available between Airport terminal and Bangalore city. The expansion of NH44 is not possible due to congestion at Hebbal flyover and due to land acquisition constraints. As per Bengaluru Metropolitan Region Development Authority (BMRDA) structure plan 2031, significant development is planned around eastern clusters of the city. BIAL had conducted a feasibility study to evaluate options for an alternate access and based on the study it was proposed that the eastern tunnel access road would be feasible to make the airport easily accessible for the eastern part of the city.
- Given the rapid development of KIA and the security concerns of having only a single access road to KIA, it was necessary to consider the alternative connectivity options to facilitate traffic and address security concerns.
- Further, BIAL submitted the phasing of construction which consisted of Phase-1 - Early works which includes construction of tunnel below cross field taxiway was planned from June 2018 to 2019 and Phase-2 Main works which includes the construction of remaining portion of the tunnel, ramps, pavements, utilities, etc., was planned between 20-21 to 2022-23.
- In this regard, Authority had noted that the enabling works can be put to use only after the Tunnel works are fully completed and accordingly decided not to consider the enabling works as part of additions to RAB during the Second Control Period. A Standing Committee was constituted to evaluate the construction of the Eastern Connectivity Tunnel (ECT) comprising of members from BCAS, CISF, AAI, MAA & BIAL. The Standing Committee gave an in-principle approval for the

construction of the 300-metre concrete box below cross taxiway of NSPR subject to certain conditions vide Minutes dt. 29th January 2019.

- An Expert Committee was constituted for the security clearance of the ECT and in its Meeting dt. 5th December 2019 also evaluated the ECT for approval.
- BIAL requested the Standing Committee for opening of the ECT below the cross taxiway to transport the Construction materials in view of the operationalisation of the NSPR and the same was accepted by the Standing Committee vide Minutes of Meeting dt. 14th January2020.
- The proposal was based on the fact that BIAL should have additional access points to facilitate the increasing traffic levels. Thus, based on the above approvals, the capex incurred on ECT of Rs. 80 crores is considered for capitalization in FY 2020-21. BIAL submits to AERA to approve this inclusion in the RAB for the Second Control Period.

7.4. Allocation of assets

7.4.1 The Authority decided the following regarding Asset allocation between Aeronautical and Non-Aeronautical services:

> *"5.a. Based on the material before it and its analysis, the Authority decides:*
>
> *i. To consider allocation of assets between Aeronautical and Non-Aeronautical services as detailed in 8.2.11 above and 8.6.2 above for determination of tariff for the Second Control Period.*
>
> *ii. To carry out a technical study on the area used between Aeronautical and Non-Aeronautical in the existing and new terminal once the operations are commissioned and stabilized and result of the study will be used to true up during next control period."*

7.4.2 BIAL has appointed Sreedar Mohan and Associates, Chartered Accountants to certify allocation of assets into Aeronautical and non-aeronautical assets. Certificate of the auditors together with the scope of work and methodology followed is provided in Annexure 8.

Table 21: Allocation of assets between aeronautical and non-aeronautical

Particulars as at (Rs. in crores)	Aeronautical Value (Gross Block)	% of Aeronautical	Non-Aeronautical (Gross Block)	% of Non-Aeronautical	Total	% Total
31 March 2017	3,576.93	90.79%	362.77	9.21%	3,939.71	100%
31 March 2018	3,712.92	90.34%	397.08	9.66%	4,100.00	100%
31 March 2019	3,844.97	90.03%	426.02	9.97%	4,270.99	100%
31 March 2020	5,891.14	92.74%	461.20	7.26%	6,352.34	100%

7.4.3 BIAL has considered the average of the asset allocation ratio of FY 2018-19 and 2019-20 for the year FY 2020-21.

7.5. Regulatory Asset Base

7.5.1 The Authority decided the following in respect of RAB in the order for Second Control Period:

"8a. Based on the material before it and its analysis, the Authority decides:

i. To consider Regulatory Asset Base as given in Table 35 Para 11.6.6 above for the purpose of computation of Aggregate Revenue Requirement.
ii. To true up the Regulatory Asset Base at the end of the Control period based on actuals at the time of determination of tariff for the next control period.
iii. To commission a study to evaluate the quantum of Project Management and Administration costs for executing a project and consider the results at the time of true up at the beginning of the next control period."

7.5.2 The projected figures as per the order for Second Control Period are as follows:

Table 22: Projected RAB for Second Control Period as per order

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Opening RAB	2,224.29	2,249.05	2,376.22	3,197.94	5,318.60
Additions during the year	213.20	326.58	1,215.78	2,425.90	5,229.58
Depreciation during the year	188.44	199.40	394.07	305.24	451.05
Closing RAB	2,249.05	2,376.22	3,197.94	5,318.60	10,097.14
Average RAB	**2,236.67**	**2,312.63**	**2,787.08**	**4,258.27**	**7,707.87**

7.5.3 The actual RAB for the Second Control Period based on capital expenditure detailed above and applying the allocation ratios above is as follows:

Table 23: Actual RAB for Second Control Period

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Opening RAB	2,271.65	2,286.45	2,220.60	2,009.18	3,856.12
Additions during the year	213.38	135.99	132.06	2,087.23	1,779.85
Depreciation during the year	198.58	201.84	343.48	240.28	317.94
Closing RAB	2,286.45	2,220.60	2,009.18	3,856.12	5,318.03
Average RAB	**2,279.05**	**2,253.52**	**2,114.89**	**2,932.65**	**4,587.08**

7.5.4 The difference between approved Average RAB and actual is mainly due to deferment of Capitalisation of certain projects as explained above.

7.6. Fair Rate of Return

7.6.1 BIAL has considered Cost of Equity at 23.61%. This is considered for true up on the basis of report of independent consultant as detailed in Para 8.6.2 below.

7.6.2 The Authority in its decision on cost of debt for Second Control Period allowed for true up of cost of debt while truing up the ARR for Second Control Period.

7.6.3 Actual cost of debt of BIAL is provided below:

Table 24: Cost of Debt of BIAL

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Average Debt Balance	1,461.04	1,554.15	1,604.41	1,654.67	1,977.71
Interest Cost	140.60	145.61	138.33	164.72	171.54
Cost of Debt (Kd)	9.62%	9.37%	8.62%	9.96%	8.67%

7.6.4 Based on the cost of equity cost of debt and gearing ratio, for the Second Control Period as above, BIAL submits the following FRoR for Second Control Period:

Table 25: FROR for Second Control Period

Particulars	FRoR
Cost of Equity	23.61%
Cost of SS	0.00%
Cost of Debt	9.22%
Weighted average gearing (WG) of Equity	47.7%
Weighted average gearing (WG) of SS	5.9%
Weighted average gearing (WG) of debt	46.4%
Fair rate of return	15.53%

7.7. Depreciation

7.7.1 The Authority decided the following in respect of depreciation in the order for Second Control Period:

"7.a. Based on the material before it and its analysis, the Authority decides:

i. To consider depreciation as per Table 32 Para 10.6.5 above to compute Average RAB and depreciation to be considered in ARR.

ii. To true up the Depreciation based on the actual Capital Expenditure and other factors as per the Order No. 35 on Useful lives, at the time of determination of tariff for the next control period."

7.7.2 The projected figures as per the order for Second Control Period are as follows:

Table 26: Projected Depreciation for Second Control Period as per order

Particulars (Rs in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Total Aero Depreciation	188.44	199.40	304.07	305.24	451.05

7.7.3 The actual depreciation for the Second Control Period is as follows:

Table 27: Actual Depreciation for Second Control Period

Particulars (Rs in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Total Aero Depreciation	198.58	201.84	343.48	240.28	317.94

7.7.4 The reasons for variance in the depreciation between the projected and actual figures is mainly on account of change in capitalization of envisaged projects.

7.8. Operating Expenses

7.8.1 The Authority decided the following in respect of operating expenses in the order for Second Control Period:

"9.a. Based on the material before it and its analysis, the Authority decides:

i. To consider Operating Expenditure under Hybrid Till as detailed in Table 49 Para 12.7.6 above for determination of tariff for the Second Control Period.

ii. To true up the Operating Expenditure for the current control period, at the time of determination of tariff for the next control period.

iii. To carry out a study for allocation of expenses between Aeronautical and Non-Aeronautical services and consider the results of the study, at the time of truing up."

7.8.2 The operating expenses allowed in the order for the Second Control Period is as follows:

Table 28: Projected Opex for Second Control Period as per order

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Personnel Expenses	107.77	128.73	146.70	164.60	193.92
Operations & Maintenance	82.73	95.14	109.41	125.82	144.69
Lease Rent	13.03	13.42	13.83	14.24	14.67
Utilities	40.64	42.77	48.88	51.40	60.32
Insurance	3.54	4.54	4.81	6.08	8.86
Rates & Taxes (other than IT)	8.72	8.80	8.87	8.96	9.40
Marketing and Advertising	7.58	8.69	9.83	11.12	12.58
General Administration Costs	19.66	10.56	23.79	26.17	28.78
Total Operating Expenses - Aero	**283.67**	**312.64**	**366.11**	**408.38**	**473.23**
Less: Disallowance - Interest/ Hotel cost etc.	-0.20	-0.28			
Concession fee	39.89	44.89	29.48	35.20	42.03
TOTAL OPERATING EXPENDITURE - AERO	**323.36**	**357.26**	**395.60**	**443.58**	**515.26**

7.8.3 BIAL has engaged Sreedar Mohan and Associates, consultants to carry out a study on the allocation of operating expenses into aero and non-aeronautical for Second Control Period. The certificate, together with the scope and methodology is provided in Annexure 9. Ratio of allocation of expenditure into Aero and Non-Aero as per the certificate is as given below:

Table 29: Aeronautical ratio for expenses

Particulars (%)	2016-17	2017-18	2018-19	2019-20
Personnel Cost	94%	94%	93%	92%
Operations & Maintenance cost	89%	89%	88%	89%
Concession fee	Revenue ratio	Revenue ratio	Revenue ratio	Revenue ratio
Land lease rent	100%	100%	100%	100%
Utilities cost	100%	100%	100%	100%
Insurance cost	91%	90%	90%	90%
Property and other taxes	100%	100%	100%	100%
Marketing and advertisement expenses	95%	90%	88%	86%

Particulars (%)	2016-17	2017-18	2018-19	2019-20
General administration cost	99%	98%	98%	91%

7.8.4 Actual expenses incurred towards Operating expenses relating to Aeronautical services as per the above certificate for the Second Control Period is given below:

Table 30: Actual Opex for Second Control Period

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Personnel Expenses	116.01	118.27	146.58	186.17	203.47
Operations & Maintenance	83.92	98.84	99.15	117.12	120.27
Lease Rent	13.01	13.42	13.83	14.24	14.67
Utilities	37.72	42.64	34.68	36.45	33.08
Insurance	1.60	2.26	1.97	3.19	7.70
Rates & Taxes (other than IT)	8.72	6.53	9.36	8.90	9.16
Marketing and Advertising	8.09	9.25	15.31	19.88	15.61
Waivers and Bad debts	-	0.60	11.15	2.74	-
CSR	3.72	4.81	16.00	19.51	16.42
General Administration Costs	26.59	33.65	28.69	32.74	36.01
Total Operating Expenses - Aero	**299.37**	**330.27**	**376.73**	**440.94**	**456.40**
Concession fee	32.67	37.06	29.29	22.95	7.80
TOTAL OPERATING EXPENDITURE - AERO	**332.05**	**367.33**	**406.02**	**463.89**	**464.20**

7.8.5 It may be noted that the actual Operating Expenses in the Second Control Period is broadly in line with the AERA approved estimates.

7.9. Taxation

7.9.1 The Authority decided the following in respect of taxation in the order of the Second Control Period:

"Based on the material before it and its analysis, the Authority decides:

i. To consider tax outflow estimate (MAT) in computation of Aggregate Revenue Requirement.

ii. To true up the projections based on actuals, at the end of the control period, in computation of tariff for the next control period."

7.9.2 The tax outflows considered in ARR by the Authority for the Second Control Period is as follows:

Table 31: Projected tax outflow for Second Control Period

Tax Outflow (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
IT Reimbursement	71.34	97.04	0.00	0.00	0.00

7.9.3 In line with the proposal detailed in Consultation Paper of DIAL as elaborated in Para 4.4 above, tax has been computed considering 30% Non-Aero Revenues as part of Aeronautical P&L

7.9.4 Actual tax outflows for the Second Control Period is as follows:

Table 32: Actual tax outflow for Second Control Period

Actual Tax Outflow (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
IT Reimbursement	55.53	80.38	42.92	-	-

7.10. Non-Aeronautical Revenue

7.10.1 The Authority decided the following in respect of non-aeronautical revenues in the order for Second Control Period:

"10.a. Based on the material before it and its analysis, the Authority decides:

i. To consider Non-Aeronautical Revenues as detailed in Table 61 Para 13.6.15 above for determination of tariff for the Second Control Period.

ii. To review and true up the Non-Aeronautical Revenues on actuals, at the time of determination of tariff for the next control period."

7.10.2 The allowed NAR for the Second Control Period is provided below:

Table 33: Figures allowed as per Second Control Period Order – NAR

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Landside Traffic	63.34	71.26	80.16	90.19	101.46
Terminal Entry/Miscellaneous Income	0.18	0.18	0.18	0.18	0.18
Retail	108.32	121.86	137.10	154.23	173.51
Food & Beverage	31.88	35.87	40.35	45.39	51.07
Advertising & Promotions	71.77	78.00	81.90	86.00	90.29
Rents and Land Leases	18.17	23.01	24.39	25.83	27.62
Lounge Revenues	19.76	22.23	25.01	28.14	31.66
Utility Charges	2.22	2.22	2.22	2.23	4.25
Flight Catering	8.45	9.50	10.69	12.03	13.53
Non-Aviation Revenues - Others	5.89	17.89	5.89	5.89	5.89
Total Non-Aero Revenues	**329.98**	**382.02**	**407.89**	**450.10**	**499.46**
Add: Revenue considered for Land Lease – Hotel	9.26	9.26	9.26	9.26	9.26
Total Non-Aero Revenues	339.24	391.28	417.15	459.36	508.72
Add: Interest Income on estimated cash	21.41	42.17	17.98	11.14	5.28
Total considered for computing 30% for adjustment	**360.65**	**433.45**	**435.12**	**470.49**	**514.00**

7.10.3 The actual NAR for the Second Control Period is as follows:

Table 34: Actual NAR for Second Control Period

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Landside Traffic	63.34	75.40	88.71	90.27	18.69
Terminal Entry/Misc. Income	0.18	0.11	-	-	-
Retail	105.32	118.47	143.38	160.91	15.55
Food & Beverage	31.88	41.10	56.96	69.15	11.88
Advertising & Promotions	71.77	77.87	77.64	75.16	19.94
Rentals and Land leases	28.21	30.66	34.66	39.26	43.11
Lounge Revenues	19.91	26.90	33.53	38.77	5.25
Utility Charges	5.75	5.62	5.83	5.82	5.55
Flight Catering	9.08	9.90	12.67	11.71	5.56
NAR-Others	5.89	7.98	9.85	14.29	8
Total	**341.33**	**394.00**	**463.24**	**505.34**	**133.30**

7.10.4 Estimates were made by BIAL in the Second Control Period considering the construction timelines of Terminal – 2, which got delayed, thereby favourably impacting the Non-Aero Revenues in comparison to the estimates. Broad reasons for variance from the AERA estimates till 2019-20 is as follows:

- Land side traffic primarily increased on account of App taxi partners like Ola & Uber.
- Retail primarily increased on account of opening of Concept of "Quad" a retail and F&B plaza opposite to the Arrivals. Similarly, the increase in F&B revenues was on account of Quad which has a number of F&B outlets and also on account of new tenders awarded on the kerb side like Harvest Market, Ooru canteen, Pizza Express, Punjab Grill.
- Lounge revenues have primarily increased on account of award of contract to new operator in 2019.

7.10.5 Reasons for reduced estimate for 2020-21 is as follows:

- The impact of COVID-19 outbreak on aviation industry and passenger base at airports has a direct consequence to the non-aeronautical revenues that airports and their concessionaires can earn. There are several factors like limited passenger base, low consumer sentiments and limited shopping of non-essentials influencing the revenue generation at airports.
- Passenger base being the substratum of non-aero revenue business at any airport, COVID-19 has impacted the foundation of the business model affecting the feasibility and financial viability of businesses across the entire Non-Aero Revenue spectrum.
- Given the current context, customer sentiments are also very low directly affecting the Sales per Pax (SPP). These two factors (low pax and low SPP) are expected to impact the earning potential for concessionaires. The Concessionaires were finding it difficult to sustain their business and meet their fixed cost given the severity of the impact of COVID on business in KIA. In order to support the same, BIAL has waived the Minimum Annual Guarantee (MAG) across all concessionaires for the period form Mar 2020 to October 2020. Further, the revenue share has been reduce by 15%-20% for all outlets to provide support to the Concessionaires to sustain their business.
- The Non-Aeronautical for 2020-21 have been estimated considering the above.

7.11. True up for Second Control Period as per BIAL

7.11.1 Considering the various components of the regulatory block, BIAL submits the following true up for the Second Control Period:

Table 35: True up for Second Control Period - As per BIAL

Particulars (Rs. in crores)	2016-17	2017-18	2018-19	2019-20	2020-21
Average RAB	2,279.05	2,253.52	2,114.89	2,932.65	4,587.08
FRoR	15.53%	15.53%	15.53%	15.53%	15.53%
Return on RAB	354.03	350.07	328.53	455.56	712.56
Working Capital Interest	19.83	0.96	0.74	1.03	6.53
Depreciation	198.58	201.84	343.48	240.28	317.94
Operating Expenditure	299.37	330.27	376.73	440.94	456.40
Tax	55.53	80.38	42.92	-	-
Less: Non Aero Revenues	(154.35)	(174.80)	(204.85)	(224.37)	(67.16)
Add: Concession Fee	32.67	37.06	29.29	22.95	7.80
Aggregate Revenue Requirement	805.67	825.77	916.83	936.40	1,434.07
Actual/Estimated Collections	816.86	926.39	732.18	573.71	187.11
(Under)/Over recovery					(1,682.48)
(Under)/Over recovery till beginning of CP3					**(1737.34)**

8. Determination of MYTP and Submissions - Assumptions

8.1. Traffic

8.1.1 COVID-19 has triggered a deep economic crisis and has long term macro-economic ramifications with aviation being one of the most severely impacted sectors. Based on feedback from industry participants, it appears that the economic crisis will continue to adversely impact demand for air travel for an indeterminate time period.

Impact of COVID-19 on Aviation and Tourism

8.1.2 The economic slowdown caused due to lockdowns aimed at curbing the pandemic is expected to adversely impact business related travel as well as VFR (visiting family and relatives) and leisure travel.

8.1.3 While most countries saw shutdown of civil aviation operations on account of COVID-19, even in countries where civil aviation is permitted, air travel demand continues to be significantly lower as compared to 2019. Based on publicly available data, the enforced lockdown and border restrictions led to grounding of nearly 60% of aircraft globally, thereby severely impacting airlines' cash reserves and financial viability.

8.1.4 The table below summarizes the forecast put forth by leading aviation agencies:

Table 36: Global Forecast of Air Traffic

Agency	Parameter for comparison & period	Forecast
CAPA 26th June 2020	Fiscal Year FY21 - India	Domestic traffic for the full year could be near the lower end of the 55-70 Mn pax range. International traffic will be in the range of 20-27 M n pax
IATA 9th June 2020	Calendar year, 2020 – Global. RPKs (Passenger Kms) for Domestic & International. Gross Pax revenue	Drop of more than 50% in 2020 (-$419) billion revenue shortfall from 2019.
IATA 24th April, 2020	Calendar Year 2020 Pax traffic for India and impact on revenues and jobs	(-50%) drop in traffic compared to 2019 (-314) billion revenue shortfall

8.1.5 The recovery of the aviation sector also depends of the financial conditions of the Airlines. The airlines need to have sufficient short-term liquidity to survive the crucial period of FY 2020-21, despite the sudden plunge in revenue.

8.1.6 For leisure travellers, the combination of economic uncertainty and fear of infection would result in low demand. On the business side, some work trips are likely to be replaced with the video conferences that have become the norm during the pandemic. Air travel demand drops by about 60 to 70 percent in 2020 and does not appear to recover to pre-crisis levels until 2023 or even later.

8.1.7 This complex situation has to be planned, controlled and managed by the airports. The changing demand and changed rules and processes in almost all parts of the system have to be implemented while at the same time high requirements on economic efficiency have to be met. For airport

management the task is to plan and organize a smooth recovery of operations and minimizing the risks of disruptive operations while at the same making quick decisions and ensure continuous adaptation.

8.1.8 Some of the challenges faced in airports are as follows:

- The additional processes like temperature control on arrival and/or departure; Health certificate check, etc. have led to additional time in these processes.
- There is increased processing time on account of additional checks / questions at check-in passport control etc., limitation of drop-off positions at security control decreasing the throughput, Delayed boarding and deboarding etc.
- The need for adherence to social distancing has resulted in reduction of handling capacity / throughput per checkpoint, Reduction of holding capacity in gate lounges and higher load on seating areas in gate hold room with fewer passenger opting for F&B, retail areas.
- There is changed passenger flow in the airport and the re-organization changes the passenger load on areas, entries, transportation elements etc .

8.1.9 All the above will result in challenges to the airport in handling capacity and affect the traffic flow in the uncertain times for an indeterminate time period post COVID-19.

8.1.10 Given the unprecedented situation, where almost 75% drop in overall traffic levels is expected for FY 2020-21, a strong / complete recovery during FY 22 is not possible. We however estimate that the traffic in FY 2021-22 will increase by over 150% and by another 36% in FY 2022-23. These steep increases are based on the expectations that there would be no lockdowns or disruptions to scheduled air travel during these years. It would also be pertinent to point out that this assumes there would be a COVID-19 vaccine or cure which would enable travellers to resume flying like pre COVID-19 times.

8.1.11 However post FY 2022-23, once the dip in traffic trajectory reaches normalcy, the traffic for the remaining period of Third Control Period is expected grow in line with the growth trend witnessed at BIAL during FY 2014-15 - FY 2019-20 period i.e. 17.4% growth for domestic traffic and 9.3% for international traffic.

8.1.12 Accordingly, the forecasted traffic estimates for Third Control Period is as follows:

Table 37: Forecast traffic for Third Control Period

Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Dom Pax in Mn	7.41	18.00	23.90	28.06	32.95	38.68
Intl Pax in Mn	0.59	2.63	4.09	4.47	4.88	5.34
Total Pax in Mn	**8.00**	**20.62**	**27.99**	**32.53**	**37.83**	**44.02**
Growth rate in %		**158%**	**36%**	**16%**	**16%**	**16%**
Dom ATMs	1,48,069	1,89,973	2,18,415	2,52,018	2,90,876	2,90,876
Intl ATMs	20,851	26,218	28,564	31,302	34,268	34,268
Dom Cargo in MT	81930,	1,21,000	1,51,000	1,67,610	1,86,047	2,06,512

Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Intl Cargo in MT	171,000	2,08,000	2,43,000	2,69,730	2,99,400	3,32,334

8.2. Project Capital Expenditure

8.2.1 In view of the reduced traffic growth, BIAL has assessed the capacity of existing infrastructure at KIA and identified the revised facilities / or programmes that would be required at the airport in the next Third Control Period.

Revised Planning Activity Level (PAL 2) Programmes

8.2.2 BIAL proposes to carry out the following projects during Third Control Period:

Table 38: Projects during Third Control Period

Program		Amount (Rs. in crores)
Airfield Works		22.09
Passenger Terminal		249.51
Landside Access and Parking		592.45
Support Facilities		642.16
CONSTRUCTION COST		**1,506.22**
Design Fee	5.00%	75.31
Project Management Consultancy Fee	5.00%	75.31
Pre-Operative Expenses	5.00%	75.31
SUB TOTAL		**225.93**
Contingency	10.00%	173.21
TOTAL		**1,905.36**
SPECIAL PROJECT - CISF Permanent Housing - Phase 1		**369.68**
GRAND TOTAL		**2275.04**

Table 39: Proposed Capex projects – Third Control Period

Project	Rs. in crores
Airside Security wall	3.89
Airside perimeter Road	18.20
T1 Optimization	249.51
Cycle Track along SAR / SWR / NCR plus docking stations	12.89
MMTH - Phase 2	268.58
Terminal Metro Station	156.81
Airport City Station	97.60
North west road expansion	41.12
CISF Barrack Expansion and Access Road	44.79
BIAL Campus Parking and Canteen	69.64
Animal Quarantine facility	3.64
New cargo domestic terminal including Cool Port	101.86
Refurbishment of existing cargo terminals	118.74
Refurbishment of catering buildings	25.80
Water Treatment Plant	6.80
Landscape Works	69.38
Alpha 4	204.37
Landside Maintenance Building	12.48
TOTAL	**1506.22**

8.2.3 Details of key projects is given below. An overview of the projects and cost report is enclosed as Annexure 10.

a) Airside Security Wall and Perimeter Road Relocation at KIAB

- GSE tunnel built below the east Crossfield taxiway is closed for security reasons as it was supposed to connect the Airside of Eastern side Apron. Currently the GSE tunnel is on the landside. If we convert this to Airside by realigning the security wall it reduces close to 14 kms of driving time for maintenance and security vehicles every day. Hence this perimeter wall realignment is included as part of CP3.
- To ease the vehicular movement near GSE tunnel, BIAL also intends to relocate the partial airside security fence along with perimeter road of approximately 700m in length. In addition to this, the other two locations also need relocation as the land reserved for new cargo domestic terminal and new CISF barrack on north east are on airside. Before commencement of these building construction, the parcels shall be converted to landside by relocating the existing airside security wall along with perimeter road of approximately 1.3 km in length.

b) T1 Optimization

- The existing Terminal 1 has been in operation from 2008-09. While the planned capacity was 20 Million post Terminal-1 expansion, over 32 Million passengers were handled in this Terminal in 2019-20. The existing terminal T1 is proposed to be rehabilitated to increase its operational efficiency and passenger throughout. This also includes spatial arrangements for converting the integrated terminal into only domestic terminal, once T2 phase 1 is operational.

- Some of the improvements evaluated and captured in this programme are:

Integration of all the concessionaries HVAC units with BMS	Integration of existing plumbing system with existing BMS
Inbuild AED location integrated with alarm system	Alternative /redundant water supply pipeline
Upgradation of FLB flooring /ceiling	Enhancement of capacity of existing wastewater discharge lines
Arrival/departure carousel refurbishment	Replacement of T1 PTB fire Hydrant buried MS pipeline network
Automatic Source transfer switch to be considered for critical IT loads to have a power redundancy	Automatic doors refurbishment to be planned
Tract system for Façade cleaning	Dual plumbing for washroom

Alternate / upgraded potable water supply line to address pressure drop and single source failure risk.	Upgradation of SWM (Solid Waste Management) infrastructure both at Primary and secondary collection points,
Security Check (PESC enhancements)	E-gate for east and west bus gates
Upgradation of old baggage handling system (BHS) line.	

c) MMTH - Phase 2, Terminal Metro Station and Airport City Station

- The Government of Karnataka (GoK) has proposed to bring metro rail link to KIA to decongest the roads. This would help thousands of air passengers who travel 30 kms by road from the city to reach the airport faster using metro transit. Hence BIAL has decided to integrate this metro rail with other modes of transport, proposed terminals and other proposed infrastructure both airside and cityside by developing a multi modal transportation hub to be located in front of T2.

- As part of this integration, BIAL has proposed two metro stations inside the campus - i) Located in terminal forecourt area to serve mainly passengers, meeter/greeters and employees working inside the terminal. ii) Located close to first roundabout / trumpet on the west to serve both BIAL and other employees working in airport community and city side development.

- MMTH has two phases. Phase 1 is under construction and would be operational along with T2 phase 1. The phase 2 of MMTH is part of third current period project which has metro stations and other associated facilities including lagoon and arrival plaza landscape features.

d) North west road expansion

- To provide access to the suburban railway station and other planned support facilities on the north west, a secondary (north west) four lane access road of approximately 2.5 kms is planned as an expansion project.

- Proposed Domestic Cargo Terminal is likely to be located in the western side of Airport premise and this road expansion project will also facilitate seamless cargo vehicle movements on the Landside and may also probably provide a road rail cargo connectivity effectively.

e) CISF Barrack Expansion and Access Road

- A fully function CISF Barrack is proposed to replace the existing CISF Barrack to accommodate the growing needs to CISF which includes dormitory area, office area and arms area.

- To access the new CISF barrack located on north west of KIA, a partial secondary four lane access road of approximately 1.5 kms is also planned along with the new CISF barrack development.

f) BIAL Campus Parking and Canteen

- The current parking facilities for BIAL and Airline employees are located adjacent to the Alpha office buildings, to the west of terminal 1 (T1). However, this land parcel is reserved for future office building (Alpha 4) which is scheduled to be implemented in the Third Control Period. Hence, it is planned to build multi-level car park in Alpha / office zone to serve all employees. This development should be taken up before commencement of Alpha 4 construction.

- Similarly, the existing canteen facility located in Alpha 2 should be relocated when the building is handed over to AAI. So, it is proposed to combine both facilities at the proposed location.

g) Cargo Development related programmes

- KIAB's existing cargo infrastructure has a capacity of about 0.6 million tonnes and has handled about 374,000 metric tonnes during FY20. Since the present concessionaire contracts are valid only till 2023, BIAL has engaged the services of an external consultant to develop a Strategy & roadmap for boosting Air Cargo potential at BIAL. The exercise was carried out in 2018 at a time when passenger traffic was growing at an unprecedented pace of 20%+ per annum. Based on the development plans that were expected to be carried out, the consultant has suggested that the entire cargo infrastructure can be located to the eastern side of the airport.

- In light of the reduced pace of aviation growth over the last year owing to the impact of COVID 19 pandemic on civil aviation, BIAL has reassessed the development projects proposed for Third Control Period including the investment envisaged for cargo handling capacity expansion. As part of this exercise, BIAL relooked at the factors while firming up the plan for the eastern side of airport.

- Accordingly, BIAL has proposed the following developments on the West Side (existing):

    - New cargo domestic terminal at MRO 3 location

- Additional Cool Port Building
- Refurbishment of existing cargo terminals

- The decision is to continue on Western side allowing BIAL to effectively use existing cargo terminal and not invest towards new terminals, new landside connectivity and other infrastructure without comprising on handling capacity in the medium term.

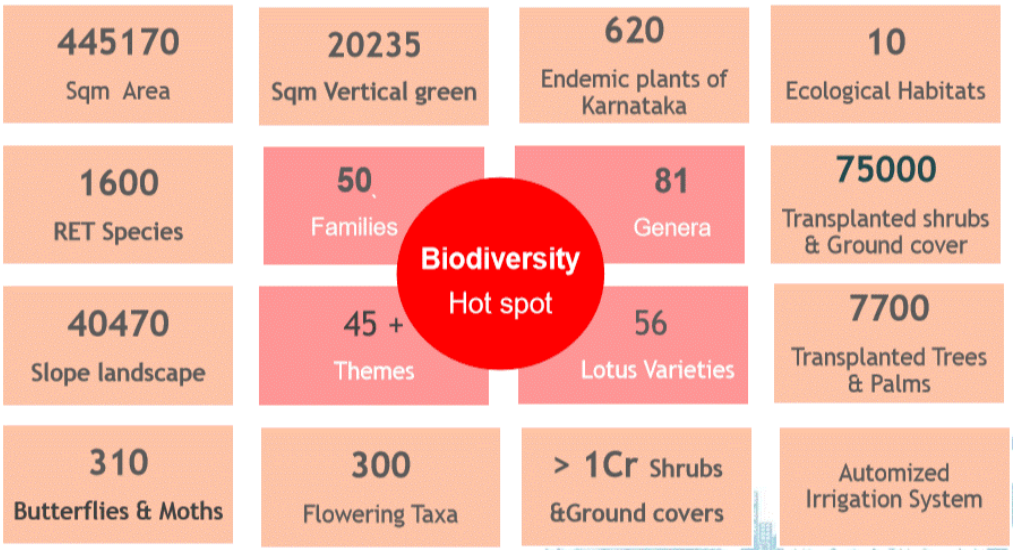
h) Water Treatment Plants (WTP) and Landscape Developments

- To meet the non-potable demand at KIAB, additional water treatment plants (WTP) of 0.9 MLD and 1.6 MLD capacities are planned adjacent to existing booster pump house on the west and within the CUP premises.

- In addition to WTPs, the second phase of landscape development includes
  - Landscape at trumpet Interchange
  - Main Access Road (MAR)
    - Key elements of the Landscaping are:

- The proposals are based around creating a resilient and biodiverse landscape that is underpinned by a network of sustainable drainage. In addition to the environment systems is a network of footpaths and cycle-paths for sustainable transport. The proposals are also promoting the re-use of existing planting along the current MAR in the new design.

- Nature of landscape project, scope and impact is depicted below:



i) CISF Permanent housing - Phase I

- CISF has been inducted at Bangalore Airport in the year 2008 to provide security for Kempegowda International Airport & its premises. As per directions given in by the Ministry of Civil Aviation, it is the responsibility of Airport Authority of India (the operators of the Airport then) to provide township accommodation to CISF for families & Barracks.

- According to Rule 61 of CISF Rules 2001, "Normally, the undertaking where the Force has been deputed shall provide accommodation in the township itself to all supervisory officers and at the rate of 45 percent married and 55 percent unmarried or as amended by the Central Govt from time to time, to the enrolled member of force".

- Presently BIAL has provided bachelor accommodation for the eligible personnel at different locations i.e. near to Country Club & Ladies staff and at Raksha Nikunj for Sub-Officers on temporary basis. The construction of temporary barracks is nearing completion, however the same can accommodate only bachelor CISF personnel. Family accommodation has not been provided so far and HRA is being paid as per laid down norms. This has resulted in all the CISF staff residing at scattered locations. These arrangements cause lot of administrative and operational inconvenience besides safety and security issues.

- CISF has completed its 12 years with the BIAL since induction and providing a permanent CISF township for bachelor & married personnel will solve many of the operational and logistic problems. In light of above, it is proposed to setup a permanent Housing township with required amenities for CISF staff deployed at KIAB by acquiring land in the nearby vicinity to the airport.

- Detailed Project Report is enclosed in Annexure 11.

j) Alpha 4

- AAI (Air Navigation Service provider) had requested for additional staffing space for second runway related operations. As per the earlier Master Plan, an annexure building was proposed adjacent to the existing Admin building (Alpha 1). However, it was decided that BIAL would hand over the Admin building (Alpha 2) to accommodate AAI staffing requirement and BIAL would temporarily shift into another facility until the construction of the "New Airline and Admin building" (Alpha 4)

- In the earlier submission, the built-up area of 12,000 sqm was planned for this facility to accommodate BIAL employees in addition to the existing Alpha-2 office space available in the campus. But due to the handover of Alpha 2 to AAI and additional requirement for office space from Airlines and other stakeholders, BIAL has proposed to increase the "New

Airport Administration Building" built up area to 45,000 sqm by combining the current planned plot with adjacent plot of 1.0 acre. The total plot area reserved for integrated administration building is 2.5 acres.

- Given the current scenario of COVID-19 that has impacted the traffic significantly, BIAL has accommodated its current staff at different locations across the airport on a short-term basis and decided that this facility will be executed in the latter part of Third Control Period.

8.3. Sustaining Capital Expenditure

8.3.1 Apart from the projects planned in Third Control Period, there is a need to continuously upgrade and enhanced equipment and technology, This would ensure that BIAL's objective of providing the best passenger service is continuously achieved. Some of the key components of the sustaining capex for Third Control Period are as follows:

- **Replacement of Crash Fire Tender (CFT):** BIAL has 4 CFTs and these were purchased in 2007-08. These CFTs would have been in use for more than 15 years during the course of the Third Control Period. Considering the safety performance requirement, it is planned to replace the CFTs in the Third Control Period in phased manner.

- **Escalators, Elevators and Travellators:** The refurbishment of escalators, elevators and travellators are planned in 3 phases to optimise the spend across 3 financial **years**. Components which are in good working condition will be preserved and only the balance equipment will go for upgradation/replacement in the subsequent years to optimize the cost. This ideology is the result of technical due diligence of the need for this asset.

- **Passenger Boarding Bridges:** While the structure will remain as it has balance life expectancy, most of the moving components, software, the cable track and hydraulic system needs to be changed. This work is also planned to be done in phases during this control period.

- **Automatic sliding doors**: The asset has been run down over the years due to normal wear and tear and hence requires replacement. We are proposing to replace these doors during this control period in phases.

- **Baggage handling system:** The baggage handling system, which was commissioned in 2008, requires major upgradation related to software, sensors, control logic, drive units. etc. The entire slot system in the arrival area also needs to be refurbished. These works are also proposed to be taken up in phases during the Third Control Period.

- **Fire alarm system:** Software upgradation, changing of Fire detectors and accessories in line with technological development is proposed during this control period.
- **Fire Fighting system:** Replacement of corroded pipe sections, replacement of valve and critical motors are proposed to be undertaken during the 3rd CP.
- **HVAC system:** Average age of high side of the HVAC system pertaining to chillers, cooling towers, valves and pumps is over 13 years. Refurbishing/replacement/upgradation of the HVAC system including Air Handling Units with higher volume of airflow would be required to be done in Third Control Period to meet the change in terminal layout is proposed to be carried out. This will also be a step towards making BIAL energy efficient.
- **Cleaning/sweeping equipment:** Equipment like Road sweepers, ride on scooters, etc are proposed to be replaced during this Control Period in a phased manner.
- **Inspection Vehicle:** Most of the inspection vehicles have completed 15 years of life and have run for more than 1.5 Lakhs kms. As most of the inspection vehicles are used in operational area, it is proposed to replace the vehicles in line with fuel efficiency, safety and functionality.
- **Civil works in airside other than Runways and taxiways:** Apron joint sealing system, Perimeter road strengthening, widening of curves and relay are planned to be carried out in phases. This will be planned in such a way that there is minimal disturbance to operation by coordinating with ATC, operations and safety.
- **Power distribution System:** Replacement of cables where insulation value is low, upgrading of SCADA system, upgrading DG synchronisation software, adding redundant / standby cables to critical system are planned during the Third Control Period.
- **Water distribution system:** Replacement of pumps, valves, hydropneumatics system, replacement of existing pipe network, adding redundant lines, filtration system etc are the planned activities during this control period.
- **Sewerage treatment system:** Existing STP is based on extended aeration system. As there is a need for capacity enhancement and technology upgradation, major refurbishment is planned for the STP in the Third Control Period.
- **Asset Management System:** In the initial phases of BIAL development, SAP platform was used for maintenance also with plant maintenance system and material management system linked with finance system. With efflux of time, such software has become obsolete. Technological advancements combined with complexity of asset multiplication, effect of SAP based preventive maintenance and work order management is not very effective. This system also does not permit mobility-based work order completion. In 2019, BIAL completed the second runway project

along with associated taxiways, CAT III lighting system, additional ARFF set up with sophisticated fire fighting vehicle, new perimeter roads, etc. In order to effectively manage the assets during its life, BIAL is focussing on implementing effective asset management system, which will use BIM based systems, using IOTs for analysis, sub-contractor management, attendance control, resource allocation, work force management, scheduling, analytics, inventory management, mobility solutions for asset maintenance, etc. This platform will be pioneered with existing assets and scaled up to manage the increased assets. BIAL will be implementing this project in phased manner to enhance the asset life cycle and also will have reduction in operating utility cost and maintenance cost.

8.3.2 **ICT Refresh**: BIAL has also estimated ICT Refresh costs at periodic intervals in the Third Control Period.

8.3.3 **Operations Refresh**: Sustaining Capex requirements of Operations includes requirements of ARFF, Terminal Operations, Security and Safety departments like PIDS, CCTV Cameras, Trolleys, Queue Managers, VDGS etc.

- Following is the summary of costs associated with the above list of sustaining capital expenditure planned for Third Control Period:

Table 40: Projected Sustaining Capex - Third Control Period

Particulars (Rs. Cr.)	2021-22	2022-23	2023-24	2024-25	2025-26	Total
Proposed Sustaining Capex addition - RAB	383	187	238	106	281	**1195**

8.4. Allocation of Assets into Aero and Non-Aero

8.4.1 BIAL has applied the Aeronautical ratios as on 31st March 2020 as per the certificate discussed in para 7.4.1 above. For the additions during the Second Control Period, BIAL has carefully determined whether the assets are to be treated as Aeronautical, Non-aeronautical or common assets. For all common assets, BIAL has applied the Aeronautical ratio at 91% as an average of ratios of FY 2018-19 and 2019-20. Allocation ratio for Terminal – 2 is kept at 88% in line with the earlier control period assessment by AERA.

8.5. Depreciation

8.5.1 Fixed assets are considered at their original cost of acquisition less accumulated depreciation. The cost includes cost of subsequent improvements thereto including taxes, duties, freight and other incidental expenses related to acquisition and installation of the assets concerned.

8.5.2 Depreciation has been provided on "Straight Line Method – (SLM)" over the useful lives of the assets. Useful lives have been aligned with Order 35 of the Authority except in cases where there it is based on technical estimate and justification of the Management of BIAL.

8.5.3 The depreciation considered in the MYTP for the Third Control Period based on the above principles is detailed below:

Table 41: Depreciation for Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Depreciation as per regulatory books	505.59	660.19	665.20	671.56	704.33

8.6. Fair Rate of Return

8.6.1 Cost of Debt:

- BIAL submits that cost of debt assumed for the Third Control Period is 10%. The basis for arriving at 10% is provided below:
- Based on the report of the RBI on Lending Rates of Scheduled Commercial Banks for the month of June 2020, following interest rates were summarized:

Table 42: Interest rates as per RBI

Average Interest Rate (as per RBI publication Jun 20)	PSU Banks	Private Banks
Month Wise from FY13 -FY20 on O/s Loans disbursed	11.08%	11.66%
Month Wise from FY16 -FY20 on Fresh Loans Sanctioned	9.71%	10.50%
Month wise 1 year MLCR from FY17-20	8.71%	9.32%

- The Independent Consultant, in the Consultation Paper issued by the Authority for determination of Aeronautical Tariff for the Third Control Period for DIAL had analysed yields of 13 debt instruments issued by various Infrastructure Companies and had arrived at a simple average of 9.97% as given below.

Table 43: Interest rate on bonds issued

Issuer	# issued	Rate
Adani Infra (India) Limited	1	10.50%
AP Capital Region Dev Auth	5	10.32%
Ashoka Buildcon Limited	1	9.80%
G R Infra projects Limited	6	9.24%
Simple Average		9.97%

- The average interest rate for both outstanding loans and fresh loans sanctioned are in the range of 10% to 11%. Further, the 1-year MCLR is also around 9% (approx.). BIAL, being an AA rated company is estimated to have a spread of 50 to 80 bps on the MCLR. Average interest rate of bonds issued by similar companies is also in the range of 10%. Hence, considering various range of interest rates depicted in tables above and the existing loan facilities availed by BIAL, BIAL considered 10% as the average cost of debt for the Third Control Period.

8.6.2 Cost of Equity:

- It is pertinent to note that AERA had stated in its Order for the Second Control Period that it will commission a Cost of Equity Study for BIAL and will consider the same at the time of true up of revenues for the Second Control Period.
- BIAL had appointed CRISIL Risk and Infrastructure Solutions Limited to carry out a study on evaluating Cost of Equity (COE) applicable to BIAL. CRISIL has estimated that the COE for BIAL at 23.61%.
- Cost of Equity has been estimated for the base case range with respect to following parameters:
  - Risk free rate is calculated by taking 10-year average yield on a daily basis for 10-year government securities.
  - Rate of market return is estimated by taking last 40 years data of BSE Sensex using Geometric Mean method and adding Dividend Yield based on longest available data on BSE Sensex.
  - Asset beta is taken as average of developing countries' asset beta. The asset beta for developing countries under consideration is 0.75.
  - D/E ratio is taken based on the normative approach and standard adopted by regulators across various infrastructure sectors in India and is computed to be 2.33.

Table 44: Cost of Equity Computation

Parameter	Value
Risk free rate	7.62%
Market Return	16.04%
D/E Ratio	2.33
Equity Beta	1.9
Cost of Equity	**23.61%**

- The report is enclosed as Annexure 5.

8.6.3 Fair Rate of Return:

- Based on the cost of equity cost of debt and gearing ratio as above, for the Second Control Period as above, BIAL submits the following FRoR for Third Control Period:

Table 45: Computation of FRoR

Particulars	FRoR
Cost of Equity	23.61%
Cost of SS	0.00%
Cost of Debt	10.00%
Weighted average gearing (WG) of Equity	49.4%
Weighted average gearing (WG) of SS	2.1%
Weighted average gearing (WG) of debt	48.6%
Fair rate of return	16.51%

8.7. Regulatory Asset Base

8.7.1 Based on the opening RAB as given in Table 23 above, additions for the current control period as given in

8.7.2 Table 39 above and Table 40 above, applying allocation ratio as given in para 8.4.1 above and after considering depreciation following is the Aeronautical RAB for the current control period:

Table 46: RAB for Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Opening RAB	5,318.03	11,443.68	11,008.28	10,581.12	10,330.34
Additions	6,631.24	224.79	238.04	420.79	1,919.60
Depreciation	505.59	660.19	665.20	671.56	704.33
Closing RAB	11,443.68	11,008.28	10,581.12	10,330.34	11,545.62
Average RAB	8,380.85	11,225.98	10,794.70	10,455.73	10,937.98

8.8. Operating Expenses

8.8.1 BIAL has estimated the Operating Expenses to be incurred during the Third Control Period considering the following:

- COVID-19 Pandemic and continued uncertainties and on account of social distancing, increased processing time and change of passenger flow mandating certain additional spends and outsourced manpower deployment.
- New Terminal T-2 with 2.55 Million Sq. meter area and multiple floor levels with sophisticated infrastructure being commissioned in 2021-22 necessitating additional costs across various expenditure categories. This Terminal was necessitated due to increase in traffic in the past and is in advance stage of construction and is planned to be commissioned by March 2022.
- Increased area of operations including Parking, MMTH, peripheral road network etc. requiring additional spends.
- Operating Costs have a large proportion of spends which are fixed in nature and do not bear a direct correlation to traffic. These have to be incurred irrespective of the passenger/ ATM throughput for manning the operations and for maintaining the assets and facilities built.

8.8.2 Based on the above premise and principles, estimates of Operating Expenses is elaborated below.

Personnel Costs

8.8.3 Human Capital is the strongest asset of BIAL ensuring efficient and safe operations at the Airport.

8.8.4 BIAL has rationalized and managed the headcount in the Second Control Period by deferring certain recruitments, optimizing on the new hire etc.

8.8.5 Headcount projections for Third Control Period are based on the requirements for existing operations and commissioning of additional assets in the Third Control Period.

- Base year considered for personnel cost estimation is from 2020-21, wherein there has been a freeze in new hires and no salary increments were provided on account of COVID-19 pandemic.
- Head count is continued at the current levels for the existing operations, increased only for back-filling of critical positions kept open/ deferred in the past.
- Manpower for Terminal-2 Phase 1 Operations are estimated to be onboarded on a staggered basis, with 340 new staff members estimated post commissioning of Terminal-2 Phase 1 Operations in 2022-23 and additional requirements of 189 members considered in 2024-25.

8.8.6 BIAL is conscious of the need to optimise headcount and efficient use of human resources. The head count after commissioning of Terminal-2 will translate to approx. 58 employees per million of passengers and is expected to further reduce to 43 employees per million passengers over the next 2 years by 2025-26. A similar trend was noted after commissioning of Terminal-1A, wherein 61 employees per million passengers in 2013-14 came down to 37 employees per million in 2019-20.

8.8.7 No increments were considered for the salaries in 2020-21. The FY 2020-21 cost forms the base for estimating the costs in Third Control Period. Thus, Annual Pay increase of 10% in salaries is considered on a y-o-y basis. Further, a market correction of 2% is considered once in 3 years.

8.8.8 Personnel cost relating to Aeronautical Services, has been derived based on a pre-determined allocation of Aero and Non-Aero in the total Personnel Cost related to Aeronautical services as detailed below in Annexure 9.

8.8.9 Based on the headcount projected by BIAL and the salary estimates given above, Personnel cost for the Third Control Period is as below:

Table 47: Personnel cost for Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Personnel Cost	227.95	320.54	361.59	473.03	536.22

Operations and Maintenance Costs

8.8.10 BIAL is dedicated to ensuring that all operations and activities are supported by well-maintained machinery and equipment. The process setup at BIAL ensures state of the art maintenance comparable to international standards. Engineering and maintenance department has been set up to ensure safe, efficient and smooth functioning of the airport which looks after the infrastructure facilities on landside, airfield and utilities and also responsible for renewable energy and rainwater harvesting management.

8.8.11 Information Communication Technology and IT Enabled Systems are handled by a separate department having specialized skill set which provides IT solutions for all the users at the airport.

8.8.12 Repair and maintenance of airfield including runways, taxiways, aprons, parking bays, aerobridges, hangers, drains, general airfield upkeep, power sub-stations, water and waste management and all

allied airside infrastructure for all the civil, electrical and mechanical works are managed by the E&M department. Round the clock support and maintenance is extended to critical areas viz., Airside planning, Airport Operation Control Centre (AOCC), Airfield Rescue Fire Fighting (ARFF), Safety Health and environment, terminal operations and so on.

8.8.13 Terminal management requires comprehensive preventive and breakdown maintenance of Baggage handling systems, Vertical and Horizontal transportation systems, HVAC, PHE systems, UPS, Fire alarm system etc. which needs to be ensured for both Terminal-1 and Terminal-2.

8.8.14 Utility management requires provision and maintenance of input power and water to terminal building, Airside facilities and also to entire community partners. This team also takes care of waste-water management, storm water management and Solid waste management of the community .

8.8.15 O&M expenditure forecast for MYTP for Third Control Period has been made considering the follows:

- Increased area and space for management and maintenance after commissioning of Terminal 2 – Phase 1. While the area of Terminal 1 is approx. 163,000 sq. m. Terminal-2 Phase 1 is planned for an area of approx. 255,000 sq. m with state-of-the-art advanced sophisticated facilities. In addition, we also are developing a Multi Modal Transportation Hub in front of T2 to enable seamless transfer across different modes of transport which will also need regular upkeep and maintenance.

- Need for increased cost on Airside maintenance activities with 2 parallel Runways and Eastern Connectivity Taxiways etc. It is pertinent to note that the new runway and the associated infrastructure has additional lights and associated infrastructure as it has Cat IIIB landing capability and existing runway also has runway centre line lights for enhanced visibility of runway centre line during adverse weather operations.

- Annual maintenance contracts have to be entered into for operations and maintenance of critical/ special equipment after commissioning of Terminal-2 and related forecourt operations. There will also be general maintenance contracts for electrical, mechanical equipment as well as house-keeping of the terminals.

- OEM based long term maintenance contract will be the method for Crash Fire tenders and special equipment like Runway friction tester, rubber removing equipment etc.

- Additional maintenance/ upkeep requirements for existing assets at Terminal-1 and Airside, due to certain assets reaching end-of life.

- Enhanced hygiene, cleaning and safety costs factored in due to uncertainly of COVID-19 impact.

- The road network across the campus is likely to increase significantly post commissioning of T2 and the associated infrastructure and it will need maintenance and upkeep regularly.

8.8.16 The O&M expenditure is estimated as a percentage of the Gross Block.

8.8.17 O&M cost estimate relating to Aeronautical business is detailed below:

Table 48: O&M expenditure for Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
O&M Expenditure	193.24	310.49	342.76	398.03	550.00

Utilities Costs

8.8.18 Utility costs comprise of power, water costs and waste disposal activities. The Utilities Costs have been calculated after netting off recoveries from the concessionaires.

8.8.19 BIAL has initiated sustainability measures such as implementation of Solar and Wind Power projects to be additional sources of supply of power, leading to reduction in average power cost.

8.8.20 Utilities cost is estimated considering the current contracted demand for Power together with additional demand and requirement of Power after commissioning of Terminal-2. Cost has been computed considering an increase of 5% in demand charges for power and 7% in consumption charges of Power and Potable water cost.

8.8.21 The Utilities Costs considered in the MYTP submitted for Third Control Period relating to aeronautical services is given below:

Table 49: Utility costs for Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Utilities Costs	39.81	52.35	56.02	59.94	64.13

Concession Fee

8.8.22 Concession Agreement (CA) was entered into between Ministry of Civil Aviation, Government of India (GoI) and BIAL on 5th July 2004. For the grant of concession, exclusive rights and privilege to carry out various activities as listed in the CA (Article-3), BIAL has to pay an annual fee 4% of annual gross revenue to the GoI. The payment terms, accounting, provisional payment, interest and taxes have been detailed in Article 3.3 of the CA.

8.8.23 The concession fee at a rate of 4% of the gross revenue payable as provided in the Concession Agreement has been considered and provided as a year-on-year expenditure.

Table 50: Concession fee from Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Concession Fee	111.26	147.46	152.40	167.60	213.01

Lease Rent

8.8.24 Land Lease Deed was executed between Karnataka State Industrial Infrastructure Development Corporation (KSIIDC) and BIAL. As part of this deed, KSIIDC a total of 4,008 acres of land has been leased to BIAL.

8.8.25 As per the Deed, the lease rent is calculated at a fixed percentage which is as per following schedule:

Table 51: Lease rent schedule

Period	Lease rent as percentage share of Land value
From Airport opening Date to beginning of Year	3%
For 8th Year	6%
From 8th Year onwards	Annual escalation at 3% of Lease rental at end of Previous Year

8.8.26 Based on the above, Lease rent considered for Third Control Period is given below:

Table 52: Lease rent from Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Lease Rent	15.11	15.56	16.03	16.51	17.00

Other Costs

8.8.27 The other costs majorly includes Insurance, Marketing and Advertisement, Rates and Taxes and General Administration Cost.

8.8.28 Manner of estimation of these costs are as given below:

- Insurance cost has been estimated at a % of the Asset block with a CPI increase.
- Rates and Taxes mainly comprise of Property tax cost which is estimated considering CPI based increase together with additional cost estimated based on the increase in area developed, after commissioning of Terminal – 2.
- Marketing costs are estimated considering benchmark based on actual costs incurred together with an annual increase estimate of 10%. Collection costs are estimated as part of Marketing cost based on the estimate of the Collection charges to be paid to airlines on the UDF collections.
- General Administration costs, comprising of Consultancy, Legal, Travel and Office costs have been estimated based on actual costs incurred together with an annual increase estimate of 10%. In addition, incremental Security costs (other than CISF) are considered from 2022-23 onwards for security and safeguard of the increased facility and infrastructure created.
- CSR costs as mandated by the Companies Act are estimated based on the prescribed regulations.

8.8.29 Based on the above, the other costs estimate for Aeronautical business is shown below:

Table 53: General administration and other costs for Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Insurance	10.43	20.42	21.85	22.94	24.30
Rates and Taxes	9.46	13.54	13.98	14.42	14.88
Marketing and Advertising	24.10	22.93	25.60	28.60	31.97
CSR Expenditure	13.70	13.22	11.90	15.72	19.86
General Administration Costs	39.62	55.67	61.24	67.36	74.10

Allocation of Expenses into Aeronautical and Non-Aeronautical

8.8.30 Allocation of expenses is based on the report of Sreedar Mohan and Associates, consultant appointed for allocation study. The report arising out of this exercise is provided in Annexure 9.

8.8.31 Allocation ratio arrived for the year 2019-20 has been considered as the basis for the Third Control Period costs.

8.9. Taxation

8.9.1 Direction No. 5/2011-12 details that the actual tax payments projected for tariff computations will be allowed as a reimbursement in arriving at the Aggregate Revenue Requirement.

8.9.2 The computation of projected income tax payments has been made based on the prevailing Income Tax laws and rules considering the MAT provisions and Section 80IA of Income tax act. BIAL is eligible for Income Tax holiday for a continuous 10-year period, starting FY 2012-13, in the first 15 years since AOD.

8.9.3 In line with the proposal detailed in Consultation Paper of DIAL as elaborated in Para 4.4 above, Aeronautical tax has been computed considering 30% Non-Aero Revenues as part of Aeronautical P&L:

Table 54: Tax payable for Aeronautical business - Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Taxation for TCP	334.61	383.79	515.66	775.64	1,552.29

8.10. Working Capital Interest

8.10.1 Working capital requirement is considered and the cost of funds is estimated at 11% per annum:

Table 55: WC requirement and Interest – Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Working Capital requirement	50	50	50	50	50
Interest on WC borrowings	6.53	7.57	7.58	7.57	7.57

8.11. Non-Aeronautical Revenues

Background

8.11.1 BIAL follows concessionaire model for managing commercial activities and has concessioned out CGF and non-aeronautical activities. BIAL has entered into Service Provider Right Holder Agreement (SPRH) with service providers wherein BIAL is entitled for agreed percentage of revenue share on gross turnover or Minimum Annual Guarantee (MAG), whichever is higher. The projections are majorly based on the business plan projections submitted by the concessionaire as per the agreement entered into with BIAL for a tenure ranging between 1 to 15 years.

8.11.2 BIAL continuously provide exclusive offerings to our consumers with an unparalleled experience within the terminal and at the kerbside including Quad etc. offering value for time.

8.11.3 BIAL recognizes that in order to take the right steps, it is important to better understand our consumers. In order to achieve this, BIAL regularly conducts structured passenger surveys and has formed an analytics division aimed at ensuring that our offerings are aligned to consumer insights.

Treatment of NAR

8.11.4 As per Article 10 of the Concession Agreement (CA) read with Schedule-6, Regulated Charges i.e., Landing, Parking, Housing, PSF and UDF are only to be regulated. Further, as per Article 10.3 of the CA, BIAL is free without any restriction to determine the charges to be imposed in respect of the facilities and services provided at the Airport or on the site, other than the facilities and services in respect of which Regulated Charges are levied.

8.11.5 Accordingly, BIAL considers only the revenues from Landing, Parking, Housing and UDF only to be regulated. Following is the list of non-aeronautical services as considered by BIAL:

- Landside Traffic
- Terminal Entry/Miscellaneous services
- Retail
- Food and Beverages
- Advertising and Promotions
- Rent and Land Lease
- Lounge Services
- Utility Charges
- Flight Catering
- Cargo, Ground Handling and Fuel Farm
- ICT (including CIC)

Estimation of Non-aeronautical Revenue for Third Control Period

8.11.6 COVID-19 pandemic has caused heavy disruption in aviation sector, deeply reducing the traffic estimates, as well as possibly impacting the passenger sentiments considering safety and social distancing norms while travelling. Passenger mix in future is expected to contain lesser proportion of tourists with lower consumer sentiments and reduction in dwell time. Under the current situation, one can expect not only a decline in revenues proportionate to traffic, but also further decline as typical spending patterns are also disturbed by the outbreak.

8.11.7 Estimates of Non-Aeronautical Revenues of the Third Control Period are done considering the following:

- Terminal-2 Phase 1 is proposed to be commissioned by March 2022. Post commissioning, commercial activities at both the terminals will take time to stabilise and generate streamlined revenues. Accordingly, Non-Aero Revenues are expected to stabilise only towards the end of the Third Control Period.

- Most of the Non-Aeronautical contracts are due for extension. But, considering the current economic scenario, tremendous efforts are needed to encourage commercial operators at Airports considering a lower passenger footfall and also reduction in per passenger revenues. Hence, this will translate to lower revenue share to BIAL.

- BIAL has, in FY 2020-21, in order to support the concessionaires affected by COVID-19 has extended reset of Minimum Guarantee and reduced the existing revenue share percentages. The impact of the same is also considered in the projections of Non-Aero Revenues for FY 2020-21 and the initial years in the Third Control Period.

8.11.8 Based on the above guidelines, various components of NAR have been estimated as below:

Table 56: Non-Aeronautical revenues for Third Control Period

Particulars (Rs in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Landside Traffic	50.48	71.09	95.16	110.66	128.76
Retail	61.12	127.96	149.77	173.66	201.60
Food & Beverage	32.42	48.28	62.98	73.24	85.21
Advertising & Promotions	52.69	75.83	92.52	107.60	125.19
Rents & Land Leases	51.73	64.30	67.51	74.43	78.15
Lounge Revenues	15.56	27.16	34.12	39.67	46.16
Utility Charges	5.55	5.55	5.97	5.96	5.96
Flight Catering	8.35	8.68	9.03	9.39	9.76
Non Aviation Revenues – Others	8.81	10.03	10.97	11.81	12.98
Sub-Total	**286.70**	**438.87**	**528.03**	**606.41**	**693.77**
Cargo, Ground Handling, Fuel Farm	96.39	118.13	129.68	143.31	159.11
ICT/ CIC	61.40	77.92	88.32	100.38	114.39
Total	**444.49**	**634.92**	**746.03**	**850.1**	**967.27**

8.11.9 As indicated above, Non-Aeronautical revenues are projected to reach Pre-COVID 2019-20 levels by 2023-24, in tandem with passenger traffic of FY 2019-20 levels being reached in 2023-24.

8.12. WPI and CPI

8.12.1 The WPI and CPI projections are based on a review of reports issued by the Reserve Bank of India (RBI).

8.12.2 RBI publishes the results of a quarterly survey of professional forecasters on macroeconomic indicators. The results of the 63rd round of Survey of Professional Forecasters on Macroeconomic Indicators, which is annexed herewith is given below:

Table 57: Consumer Price Index (CPI)

	CPI Combined (General)			
	Mean	Median	Max	Min
Q4:2019-20	6.5	6.7	6.9	4.8
Q1:2020-21	5.2	5.3	6.2	4.0
Q2:2020-21	4.8	4.8	5.7	3.8
Q3:2020-21	3.7	3.6	5.9	2.4
Q4:2020-21	3.4	3.2	6.4	2.3

Table 58: Wholesale Price Index (WPI)

	WPI All Commodities			
	Mean	Median	Max	Min
Q4:2019-20	2.3	2.4	2.8	1.6
Q1:2020-21	1.6	1.8	3.0	-1.3
Q2:2020-21	2.4	2.5	3.2	0.0
Q3:2020-21	2.3	2.5	3.5	-0.2
Q4:2020-21	2.3	2.2	4.6	0.8

9. Financial Statements

9.1. Profit and Loss Account

Table 59: Profit and Loss account (Rs. in crores)

Particulars	2021-22	2022-23	2023-24	2024-25	2025-26
Aviation Charges	3,189.35	4,424.22	5,254.83	6,245.16	7,426.39
Aviation concessions	157.78	196.05	218.00	243.70	273.51
Non-Aviation Revenue	286.70	438.87	528.03	606.41	693.77
Other Income	21.70	15.65	28.22	75.44	138.79
Total Revenue	**3,655.53**	**5074.78**	**6029.07**	**7170.71**	**8532.47**
Personnel Expenses	(247.50)	(348.03)	(392.61)	(513.61)	(582.21)
Operations & Maintenance	(215.74)	(347.23)	(385.67)	(445.34)	(602.70)
Concession Fee	(146.22)	(202.99)	(241.16)	(286.83)	(341.30)
Lease Rent	(15.11)	(15.56)	(16.03)	(16.51)	(17.00)
Utilities	(39.81)	(52.35)	(56.02)	(59.94)	(64.13)
Insurance	(11.59)	(22.68)	(24.27)	(25.48)	(26.99)
Rates & Taxes (other than IT)	(9.46)	(13.54)	(13.98)	(14.42)	(14.88)
Marketing and Advertising	(27.17)	(25.57)	(28.50)	(31.79)	(35.49)
CSR	(13.70)	(13.22)	(11.90)	(15.72)	(19.86)
General Administration Costs	(43.38)	(60.95)	(67.05)	(73.75)	(81.13)
Total Expenses	**(769.68)**	**(1,102.14)**	**(1,237.18)**	**(1,483.39)**	**(1,785.70)**
EBITDA	**2,885.85**	**3,972.64**	**4,791.89**	**5,687.32**	**6,746.77**
Depreciation (net of PSF recovery)	(385.82)	(718.80)	(752.88)	(755.86)	(768.53)
Financing Costs - Term Debt	(360.96)	(822.15)	(796.17)	(752.61)	(705.40)
Hedging, LE/Trustee/WC Costs	(6.63)	(7.77)	(7.79)	(7.77)	(7.77)
PBT	**2,132.44**	**2,423.92**	**3,235.06**	**4,171.07**	**5,265.07**

9.2. Balance Sheet

Table 60: Balance Sheet (Rs. in crores)

Particulars	2021-22	2022-23	2023-24	2024-25	2025-26
SOURCES OF FUNDS (Aggregate)					
Capital	423.06	423.06	423.06	423.06	423.06
Total Profit & Loss Account	4,341.26	5,911.82	7,973.77	10,644.65	14,027.24
Total Equity	4,764.32	6,334.88	8,396.83	11,067.71	14,450.30
Loan Funds					
Secured Loans (incl. ECB Restatement)	8,291.14	8,170.09	7,754.08	7,298.99	6,809.89
Unsecured Loan - SS	332.50	332.50	332.50	332.50	332.50
Working Capital Borrowings	50.00	50.00	50.00	50.00	50.00
Total Sources of Funds	13,437.96	14,887.47	16,533.41	18,749.20	21,642.69
APPLICATION OF FUNDS (Aggregate)					
Fixed Assets					
Gross Block	15,807.95	16,388.34	16,671.07	17,113.24	19,014.66
Less: Accumulated Depreciation	(2,981.84)	(3,700.64)	(4,453.52)	(5,209.38)	(5,977.91)
Net Block	12,826.12	12,687.70	12,217.55	11,903.86	13,036.75
Capital WIP	39.14	210.91	476.35	847.60	(0.01)

Particulars	2021-22	2022-23	2023-24	2024-25	2025-26
Investment in subsidiary	35.05	35.05	35.05	35.05	35.05
Current Assets, Loans and Advances					
Inventories	33.33	63.23	65.55	66.68	68.45
Sundry Debtors	298.67	415.82	493.22	583.17	689.89
Other Current Assets , Loans and Advances	2,183.01	2,006.25	1,629.38	1,161.38	1,161.38
Total Current Assets, Loans and Advances	2,515.02	2,485.31	2,188.15	1,811.23	1,919.72
DSRA	57.22	97.63	168.02	174.07	178.58
Cash and Bank Balances	359.39	1,743.19	4,026.35	6,735.14	9,348.56
Total Current Liabilities and Provisions	2,393.96	2,372.31	2,578.04	2,757.75	2,875.95
Net Current Assets	480.45	1,856.19	3,636.46	5,788.62	8,392.33
Total Application of Funds	13,437.97	14,887.48	16,533.42	18,749.21	21,642.70

9.3. Cash Flow Statement

Table 61: Cash Flow Statement (Rs. in crores)

Particulars	2021-22	2022-23	2023-24	2024-25	2025-26
CASH FLOWS FROM OPERATING ACTIVITIES					
Net Profit/(Loss) after tax	1,637.18	1,576.56	2,104.25	2,713.19	3,424.90
Add: DT Asset /Liability	495.27	247.09	179.58	132.29	119.03
Add: Depreciation	385.82	718.80	752.88	755.86	768.53
Operating Profit / (loss) before Working Capital changes	2,518.26	2,542.45	3,036.71	3,601.34	4,312.46
Adjustments for changes in Current Assets and Liabilities:					
(Increase)/ Decrease in Inventories, Debtors and Other Current Assets	(659.75)	29.71	297.16	376.91	(108.49)
Increase/ (Decrease) in Current Liabilities and Provisions	(652.13)	(268.74)	26.15	47.42	(0.83)
(Increase)/Decrease in TRA Reserves	(32.56)	(40.41)	(70.39)	(6.06)	(4.50)
Net Working capital changes	(1,344.44)	(279.44)	252.92	418.28	(113.82)
Cash generated from Operations	1,173.82	2,263.01	3,289.63	4,019.62	4,198.63
CASH FLOWS FROM INVESTING ACTIVITIES					
Purchase of Fixed Assets	(2,305.70)	(752.16)	(548.16)	(813.43)	(1,053.81)
Net Cash from/ (used in) Investing Activities	**(2,305.70)**	**(752.16)**	**(548.16)**	**(813.43)**	**(1,053.81)**
CASH FLOWS FROM FINANCING ACTIVITIES					
Proceeds from LT Debt incl. Loss on restatement/Fin Lease	680.31	(121.05)	(416.01)	(455.09)	(489.10)
Payment of dividend	-	(6.00)	(42.31)	(42.31)	(42.31)
Net Cash from/ (used in) Financing Activities	680.31	(127.05)	(458.31)	(497.40)	(531.41)
Net increase/(decrease) in cash and cash equivalents	(451.57)	1,383.80	2,283.16	2,708.79	2,613.42

10. Calculated Aggregate Revenue Requirement (ARR)

10.1.1 The Aggregate Revenue Requirement (ARR) has been computed in line with the guidelines / Direction No. 05/2010-11

10.1.2 The ARR calculated for Third Control Period by BIAL is shown below:

Table 62: ARR for Third Control Period

Particulars (Rs. in crores)	2021-22	2022-23	2023-24	2024-25	2025-26
Average RAB	8,380.85	11,225.98	10,794.70	10,455.73	10,937.98
FRoR	16.51%	16.51%	16.51%	16.51%	16.51%
Return on RAB	1,383.53	1,853.21	1,782.01	1,726.05	1,805.67
Working Capital Interest	6.53	7.57	7.58	7.57	7.57
Depreciation	505.59	660.19	665.20	671.56	704.33
Operating Expenditure	573.41	824.73	910.96	1,096.55	1,332.47
Tax	334.61	383.79	515.66	775.64	1,552.29
Less: Non Aero Revenues	(133.34)	(190.47)	(223.81)	(255.03)	(290.18)
Add: Concession Fee	111.26	147.46	152.40	167.60	213.01
Less/Add: Over/Under-recovery in previous CP	4,545.29				
Aggregate Revenue Requirement	7,326.88	3,686.47	3,810.00	4,189.94	5,325.15

11. Quality of Service

11.1.1 BIAL undertakes every possible step to achieve the appropriate quality of Services offered, as mentioned in the Concession agreement.

11.1.2 BIAL has been felicitated with numerous awards from various leading organizations all around the globe that exhibits BIAL's commitment to the quality of services offered at Kempegowda International Airport.

11.1.3 Some of the prestigious awards received by BIAL that places it among many efficient and best International Airports all around the globe:

- The ASQ (Airport Service Quality) Awards of ACI (Airports Council International) recognizes airports around the world based on a survey of passenger satisfaction.
- The ASQ awards celebrate the achievements of airports in delivering the best customer experience and they represent the highest possible accolade for Airport Operators around the world.
- In March 2019, BIAL has been awarded as THE FIRST AIRPORT IN THE WORLD to clinch ACI's coveted ASQ Awards for both arrivals and departures.
- KIAB has won the First-ever ASQ award for Arrivals, a category open to airports across the worlds, that was introduced in 2018.
- KIAB also won the award for best airport by size/region in the 25-40 MPPA category in the Asia-Pacific zone.
- SKYTRAX Awards – SKYTRAX is a UK-based consultancy firm which runs an airport and airlines review and ranking site. The KIAB has been felicitated with SKYTRAX's award for Best regional airport in India and central Asia, in May 2020, for the 3rd time in 4 years at the 2020 World Airport Awards. These awards are based on the World Airport Survey questionnaires completed by over 100 nationalities of airport customers during the 6-month survey period. The survey evaluated the customer experience across airport service and product key performance indicators – from check-ins, arrivals, transfers, shopping, security and immigration through to departure at the gate.

11.1.4 Other notable awards won by KIAB for services provided during Second Control Period,

2017

- *Favorite Airport for holidays by HolidayIQ*
- *CII Customer Obsession Award customer engagement service in large business organization*
- *Best Cargo Airport – West & South and best Airport Cargo Marketing Team – West & South, India Cargo Awards*

2018

- *Emerging Cargo Airport of the Year for India at the STAT Trade Times International Awards for Excellence in Air cargo.*
- *Second best Airport in the world in 15-25 MPPA category – ACI ASQ Awards.*
- *Best Cargo Airport 2018 – India Cargo Awards*

2019

- *Best Airport - ASSOCHAM Awards on Civil Aviation & Cargo.*
- *Most Sustainable Airport – International Airport Review Awards.*

2020

- *Best Greenfield Airport, Cargo – India Cargo Awards 2020.*
- *Fastest growing Cargo Airport of the year – Region India at Air Cargo India.*

12. Annexures

Table 63: List of Annexures

Annexure Name	Annexure No.
Clarificatory letter issued by AERA dated 13th Sep 2018	1
Certificate on Excess UDF collected	2
Legal opinion on Taxation on 30 percent Non-Aero Revenues	3
Audited Accounts – IGAAP and IND AS	4
Report on Cost of Equity by CRISIL	5
Soft cost benchmark study report by Turner	6
Project Schedule Impact analysis report	7
Report on allocation of assets	8
Report on allocation of expenses	9
Overview of Projects in third control period	10
Detailed Project Report – CISF	11