UPGRADE, EXPANSION, OPERATIONS, AND MAINTENANCE OF BOHOL-PANGLAO INTERNATIONAL AIRPORT INFORMATION MEMORANDUM

August 2024



DISCLAIMER



This Information Memorandum has been prepared by the Department of Transportation of the Philippines (DOTr), in relation to the Upgrade, Expansion, Operations and Maintenance of Bohol-Panglao International Airport (the Project).

This Information Memorandum is provided to facilitate recipients in appraising the Project and in preparing their submission to the Instructions to Challengers (ITC). However, it is not intended to serve as the basis for an investment decision in the Project, and each recipient is expected to make such independent investigation and to obtain such independent advice as it may deem necessary for such decisions. This Information Memorandum does not purport to be all-inclusive or to contain all of the information that a prospective challenger may consider material or desirable in making its decision to participate in the bid challenge.

No representation or warranty, express or implied, is made, or responsibility of any kind is or will be accepted by DOTr, the Civil Aviation Authority of the Philippines (CAAP) or the Government of the Republic of the Philippines (Government or GOP) or any of its agencies, with respect to the accuracy and completeness of this information.

DOTr may amend or replace any of the information contained in this Information Memorandum at any time, without giving any prior notice or providing any reason.

In furnishing this Information Memorandum, DOTr, CAAP, GOP or any of its agencies undertake no obligation to provide recipients with access to any additional information, or to update, or to correct any inaccuracies which may become apparent in this Information Memorandum or any other information made available in connection with the Project prior to the issuance of the Instructions to Challengers for the Project. Additional information shall be provided at appropriate times during the formal tender process.

No person has been authorized to give any information or make any representation in relation to the Project not contained in this Information Memorandum and, if given or made, any such information or representation may not be relied upon as having been authorized by DOTr, CAAP, GOP or any of its agencies.

All information in this Information Memorandum is qualified by the terms and conditions of the Instructions to Challengers for the Project and any bid bulletins that may be issued by DOTr in relation thereto. In case of any conflict between the information and terms in this Information Memorandum with the Instructions to Challengers (ITC), and/or the draft Concession Agreement, the information and terms in the ITC and the draft Concession Agreement shall prevail.



KEY TERMS / ABBREVIATIONS

Term	Meaning			
ANS	Air Navigation Services			
AIP	Aeronautical Information Publication			
ATC	Air Traffic Control			
СА	Concession Agreement			
СААР	Civil Aviation Authority of the Philippines			
CAPSC	Capital Augmentation Passenger Service Charge			
CFR	Crash Fire Rescue			
CSIS	CAAP Security and Intelligence Service			
DOTr	Department of Transportation of the Philippines			
GOP	Government of the Philippines			
ΙΑΤΑ	International Air Transport Association			
ICAO	International Civil Aviation Organization			
ICC	Inter-agency Investment Coordination Committee of the NEDA Board which is the oversight approving body of USPs in the Philippines			
IFC	International Finance Corporation			
IRR	Implementing Rules and Regulations			
ITC	Instructions to Comparative Proponents			
КРІ	Key Performance Indicator			



KEY TERMS / ABBREVIATIONS

Term	Meaning			
МРРА	Million Passengers Per Annum			
MPPS	Minimum Performance Specifications and Standards			
NEDA	National Economic and Development Authority			
O&M	Operations and Maintenance			
OTS	The Philippines' Office for Transportation Security			
PPP	Public-Private Partnership			
PSC	Passenger Service Charge			
РТС	Parameters, terms and conditions of the PPP transaction approved by NEDA			
TAG	Bohol-Panglao International Airport			
USP	Unsolicited Proposal			
UV	Usufruct Valuation			
VDR	Virtual Data Room			

Table of Contents



I. Introduction	6
II. Investment Opportunity	8
III. Challenge Process	18
IV. Current Airport Assessment	26
V. Investment Outlook	86
VI. Legal Environment	105
VIII. Transaction Team	107



I. INTRODUCTION

I. INTRODUCTION



- The Department of Transportation of the Philippines (DOTr) and the Civil Aviation Authority of the Philippines (CAAP) are seeking to upgrade, expand, operate, and maintain the Bohol-Panglao International Airport (TAG) through a PPP arrangement (the "Project")
- TAG, currently operated by CAAP, is in Panglao Island and caters to the island of Bohol. It is one of the newer airports in the Philippines, having begun operations only in 2018, replacing Tagbilaran Airport which has exceeded its design capacity due to increased tourist arrivals in Bohol. Passenger traffic in the old Tagbilaran Airport grew at 10.9% annually over its last 10 years of operation. Bohol is among the country's most popular tourist destinations with natural attractions like Chocolate Hills, Loboc River, various tarsier sanctuaries, and the white sand beaches of Panglao.
- The DOTr and CAAP (together, the "Implementing Agencies") have received an unsolicited proposal from Aboitiz InfraCapital, Inc. (AIC). Upon evaluation and successful negotiation, the Implementing Agencies have accepted the unsolicited proposal, in accordance with the provisions of Implementing Rules and Regulations (IRR) of Republic Act No. 11966, otherwise known as the Public-Private Partnership Code of the Philippines ("PPP Code").
- Under the PPP Code, the USP shall be subjected to comparative challenge where Challengers are invited to submit comparative proposals. DOTr and CAAP are now inviting Challengers to submit their comparative proposals under a comparative challenge process to finance, design, construct, operate and maintain TAG under a thirty (30) year concession, which terms are set in the draft Concession Agreement.







II.1. INVESTMENT OPPORTUNITY HIGHLIGHTS

1. Stable legal framework

Republic Act No. 11966, also known as the PPP Code of the Philippines, was signed into law on December 5, 2023, and came into
effect on December 23. It provides the legal framework for government agencies to enter into PPP contracts with qualified private
sector proponents for the implementation of government infrastructure or development projects.

2. TAG is part of wider airport PPP program in the Philippines which can bring scale to private investors

 DOTr is assessing PPPs in several regional airports, there could be opportunities for the Challengers to participate in additional airport projects and leverage project scale

3. Brownfield asset with tourism traffic potential

- Fully operational airport
- Long-term international and domestic tourism potential
- Gateway to Bohol island with catchment area of 1.4 million inhabitants

4. Bankable Concession Agreement

- Early termination compensations ensuring full debt repayment to lenders
- Airport capacity augmentation to be undertaken based on traffic triggers and meeting the MPSS and KPIs
- Non compete clause
- Adoption of environmental and social international standards (IFC Performance Standards) and EDGE certification



II.2. BOHOL-PANGLAO AIRPORT IN A NUTSHELL



II.2. BOHOL AIRPORT IN A NUTSHELL

New Bohol International Airport Overview

- Location: Panglao Island, Bohol Province, Central Visayas Region
- Inauguration: November 2018
- Initial Cost: PHP 7.8 Bn, funding from ODA (JICA)
- Owner: CAAP
- Primary Functions:
 - Replacement for Tagbilaran Airport
 - Supports regional economic development and tourism

Bohol Province Snapshot

- **Population:** 1.3 Mn (2015)
- Main Industries: Agriculture and Fishing
- Tourism Potential:
 - 1.6 Mn tourists in 2019, 46% international
 - Key to achieving national tourism goals
 - Unique natural sites and beach resorts

Project Strategic Importance

- Economic Impact: Boosts local economy by enhancing trade and tourism
- Connectivity: Improves accessibility and connectivity for international visitors
- Decongestion: Helps decongest major airports like Manila by providing direct international routes



Aerial view of New Bohol International Airport



Exterior of the airport





II.3. PPP STRUCTURE

PPP Scope	 Concessionaire responsible for all airport operations, except for ANS, security, customs, immigration and quarantine services Concessionaire responsible for expansion and maintenance of all airport infrastructure Concessionaire has rights to develop commercial assets and exploit commercial revenues Concessionaire to collect all aeronautical and non aeronautical revenues and bear the traffic risk 		
Terminal Expansion	 Existing terminal reconfiguration to improve processing capacity from 2.0 MPPA to <u>at least 2.5 MPPA</u> First Capacity Augmentation to enable the airport to handle <u>at least 3.9 MPPA</u>. Capacity Augmentation to be triggered when individual peak hour flows are at least 70% of capacity and the IC determines it is required to meet the MPSS and KPI Capacity Augmentation(s) beyond 3.9 MPPA capacity are subject to approval of the Approving Body 		
Tariffs & Adjustments	 Airport charges and indexation mechanism are regulated by the Concession Agreement For Capacity Augmentation, Capacity Augmentation Charge (CAPSC) is added to the passenger service charge (PSC) for full recovery of capacity augmentation investments 		
Concession Fee	 GOP will be paid a share from gross revenues (or variable payments from all revenue sources, i.e., aeronautical, non-aeronautical, commercial revenues) The gross revenue share % will be the bid criteria. (The minimum bid starts at 7%). GOP will also be paid a fixed annual payment – Yr 1 to 5 - Php 15 million per year; Year 6 to 10 - Php 20M million per year; Year 11 to 15 - Php 30 million per year; Year 16 to 20 - Php 50 million per year; Year 21 to 25 - Php 100 million per year; and Year 26 to 30 - Php 200 million per year. The total fixed and variable payments received by GOP during the concession period have to be at least equal to the Usufruct Valuation of assets handed over by GoP 		
Non-Compete	 GOP is not allowed to build a new airport (above Principal Level 2) or upgrade domestic airport to an international airport within the Bohol province during the first 15 years of the Concession or until passenger traffic at TAG airport reaches full capacity (whichever is earlier). 		
E&S 12	 Concessionaire to comply with IFC PS and relevant aspects of WBG General EHS Guidelines, WBG EHS Guidelines for airports for all capacity augmentation works and operation and management of the airport facilities The terminal buildings and project land to be handed over on modified 'as-is' and 'where-is' basis. Concessionaire to accept all risks relating to existing land condition and legal claims. Government to be responsible only for compliance of buildings with NBCP of 2018. 		

II.4. SCOPE AND SPLIT OF SERVICES

Scope of the Project:

- Operation and Maintenance of airside facilities (runway, taxiway, apron)
- Operation and Maintenance (O&M) of the existing terminal
- Reconfiguration and Capacity Augmentation in accordance with the CA
- Planning and development of the expended terminal
- Development of commercial assets
- Operation and Maintenance of landside facilities (project facilities and commercial assets)
- Payment of fixed payments in accordance with the CA
- Collection of gross revenue and payment of Grantor revenue share
- Provide high-class passenger service quality in compliance with the MPSS and KPIs as per the CA
- Transfer of the project assets to the Grantor according to Handback requirements in accordance with the CA
- Financing of above activities

Split of operational services:

Core Services	Concessionaire	Government	Third Parties
ATC Services		Х	
Airside Operation on ground	Х		
Terminal Operation	Х		
Capacity Augmentation	Х		
Ground Handling	(X)		Х
Cargo Handling	(X)		Х
Aircraft Maintenance			Х
Security - Passenger screening		Х	
Airport Security (Fence, Access)	Х		
Landside operation (curb, roads)	Х		
IT Services	Х		
Car Parking	Х		
Police		Х	
Immigration		Х	
Customs		Х	
Quarantine office		Х	
Fire brigade	Х		
Catering			Х
Hotel			Х
Fueling			Х
Retail	(X)		Х
Airport Advertisement			Х
Lounges	Х		



II.5. KEY TERMS OF THE CONCESSION AGREEMENT (1/3)

In case of any conflict between the information and terms in this section with the draft Concession Agreement, the terms in the draft Concession Agreement shall prevail.

Торіс	Key terms approved by the NEDA Board		
Scope of the Project	 <u>Construction</u> PP to undertake reconfiguration works and capacity augmentation through expansion or construction of new passenger terminals, associated infrastructure and facilities PP to enhance or develop airside and landside facilities to meet the enhanced scale of airport operations PP to Develop commercial assets. <u>O&M</u> PP responsible for the O&M of existing terminal and all enhanced airside facilities. PP to operate and maintain commercial assets <u>Air Traffic Control</u> CAAP to remain responsible for air traffic control. 		
Capacity Augmentations	 Project shall have 2 phases. Phase 1 comprising Reconfiguration Works, while Phase 2 refers to Capacity Augmentation triggered when individual peak hour flows are ≥ 70% of the airport capacity and when IC has validated that capacity augmentation is required to comply with KPIs and MPSS. Beyond these first 2 phases, proposal will be subject to review by the Approving Body 		
Financing	 Grantor shall not fund any of the Capex Approved maximum Debt/Equity ratio of 80/20 		
Concession Period	30 years		
Asset Handover	 All assets to be handed over by the Grantor on a modified "as is- where is" basis. Government to ensure that existing terminal and ancillary buildings comply with National Building Code of the Philippines (NCBP) effective in 2018 		

II.5. KEY TERMS OF THE CONCESSION AGREEMENT (2/3)

Торіс	Key terms approved by the NEDA Board			
Grantor Assistance	 Transfer of possession over the project land (without warranty) Provision of air traffic control and air navigation services Reasonable assistance for sewerage treatment plant and water treatment services; electricity and water supply Zoning restrictions pertaining to height of buildings, air navigation, and air commerce. Reasonable assistance for other zoning restrictions not enforced by government authorities other than Grantors. 			
Grantor Compensation	 Fixed payments: annual payments of PHP 15-200 million (as defined in the concession agreement) Gross revenue share 			
Concessionaire's Revenue	 <u>Aeronautical Revenue</u> Aeronautical fees, tolls, charges paid by users – as defined in the CA Aeronautical fees adjusted by inflation every 3 years Adjustment in PSC after completion of Capacity Augmentation shall be derived using the CAPSC (Capacity Augmentation Passenger Service Charge) formula Any additional adjustment to fees as a result of any uncommitted capacity augmentation (i.e., above 3.9 MPPA) shall be subject to the review, determination, and approval of the appropriate Approving Body. Adjustment of the PSC, including CAPSC, may only be requested once the KPIs and MPSS have been achieved following additional CapEx infusions. 			





II.5. KEY TERMS OF THE CONCESSION AGREEMENT (3/3)

Торіс	Key terms approved by the NEDA Board
KPIs and MPSS	IATA's "Optimum" Level of Service
	• KPIs must include: waiting time in queue, time taken for baggage delivery from aircraft arrival, percentage time availability, availability of personnel, maintenance of ambient conditions.
	 Other specific KPIs are defined – e.g. aircraft stand to be available at least 99% of the time; passenger boarding bridges to be available 99% of the time, etc.
	• Concessionaire must integrate the concept of 'Sustainable' Airports and 'Connected' Airports into the development, O&M of the airport
Non-Competition	 Until the 15th year of the project or until passenger traffic at TAG Airport reaches its design capacity (as may be expanded from time to time following the First Capacity Augmentation) there shall be restrictions on: Upgrading domestic airports in the island of Bohol to international airports, and Constructing new airports above Principal Level 2 within the island of Bohol.
Usufruct Value	 PHP 580 million – paid in installments through fixed payments and Grantor Revenue Share. Interest is applied annually on outstanding balance, until amount is fully paid. Any unpaid amount at expiry or termination is deducted from any termination payment due to the Concessionaire in case of early termination or paid by the Concessionaire to the Grantor if concession ends without early termination.



II.6. RISK ALLOCATION (1/2)

In case of any conflict between the information and terms in this section with the draft Concession Agreement, the terms in the draft Concession Agreement shall prevail.

Risk	Borne by	Comments
Asset Condition	Concessionaire	 Airport is transferred to Concessionaire on "as-is where-is" basis (qualified by Approving Body to condition as of the terminal's completion in 2018, meeting national building code standards then)
Construction Risk	Concessionaire	 CA provisions include delay LDs, construction security, Grantor's right for termination for extended construction delay CAPSC set to compensate the Concessionaire for capacity augmentation investments based on Capacity Augmentation Plan as approved by IC (i.e. cost overruns are not taken into consideration)
Traffic	Concessionaire	 Concessionaire bears full traffic risk Capacity Augmentation is to be undertaken when traffic reaches 70% of airport capacity (based on actual individual Peak Hour flows for past 3 months) and confirmed by IC as necessary to meet MPSS and KPIs Non-compete w/n defined area (until earlier of 1st 15 years of concession or breach in capacity following the First Capacity Augmentation)
Aeronautical Revenue / Charges	Concessionaire	 CA sets the aeronautical fees and inflation adjustment every 3 years. Concessionaire to earn all revenue and bear all revenue risk. Government guarantees application of formula for adjustments including CAPSC results for First Capacity Augmentation.
Performance / O&M	Concessionaire	 Performance securities for operations and asset performance at Handback; KPI penalties; Grantor's right to terminate for consistent breaches in performance
Manpower	Concessionaire	 Mandatory offer of employment to all existing regular airport employees involved in the operation of the airport and other non-permanent employees performing firefighting functions, and optional for other classifications (contractual, job orders, 3rd party agencies), at equal or better salary/benefits level at time of transfer.



II.6. RISK ALLOCATION (2/2)

Risk	Borne by	Comments	
Force Majeure	Both	Parties to share FM costs, net of insurance proceeds. For extended FM, either party can terminate.	
Early Termination	Both	 Grantor Default (included MAGA) termination compensation Concessionaire Default termination compensation Prolonged Force Majeure termination compensation 	
Residual Value at end of Concession	Both	 Concessionaire to handback asset in the condition required under the Handback Requirements and undertake any required Handback Rectification Works Concessionaire to pay to Grantor the <u>usufruct value</u> (estimated pre-closing) after deduction of all concession fee paid during the concession period (if positive) Grantor to pay to Concessionaire the <u>handback value</u> equal to the net book value of the capacity augmentation. The handback value (if any) shall be determined upfront at the time of approval of the relevant Capacity Augmentation Plan 	







III.1. CHALLENGE PROCESS OVERVIEW



- * Note that Challengers must compete based on the final draft CA. Draft CA cannot be renegotiated.
- 20



III.2. INDICATIVE CHALLENGE PROCESS TIMELINE*



publication of the first set of tender documents This timeline is indicative and may be subject to changes*



III.3. INVESTOR'S DUE DILIGENCE

Virtual Data Room

 Challengers are welcome to conduct their due diligence. Challengers who purchased the Bid Documents are granted access to the Virtual Data Room where relevant due diligence materials, the bid documents and bid bulletins will be uploaded.

Site Visit

 The Pre-Qualifications, Bids and Awards Committee ("PBAC") may, upon the request of the Challengers, facilitate site visits as per the Site Visit Guidelines that will be uploaded in the VDR. A Challenger may conduct its own site visit, which will be without assistance from the PBAC.

Investor Conference and One-on-one Meetings

Interested parties may attend the pre-bid conference where the PBAC will clarify any part of the Tender Documents and answer any
relevant question from the Challengers. The technical and legal consultants will provide additional information on the transaction;
clarify any questions on the bid documents, procurement process, and overall implementation arrangements for the project.

One-on-one Meetings

• Upon request of the Challengers, the PBAC may hold one-on-one meetings. Challengers who wish to schedule such meetings may send their requests to the PBAC Secretariat via the VDR. A Challenger scheduled for one-on-one meeting is requested to submit in writing no later than three [3] working days prior to such meeting, its questions using the template provided in the ITC.



III.4. LEGAL QUALIFICATION REQUIREMENTS

To qualify to submit a Comparative Proposal for the Project, Challengers must comply with all the Legal Qualification Requirements, Technical Qualification Requirements, and Financial Capability Requirement provided in the ITC.

Legal Qualification Requirements include *:

- Registration with SEC or foreign equivalent
- Challenger and each Consortium Member shall have no record of unsatisfactory performance
- An airline or affiliate of an airline can participate in the tender process subject to the following:
 - (i) If the Challenger is a partnership, corporation or any other juridical entity, the Challenger itself or its affiliate cannot be an airline or affiliate of an airline ("Airline-Related Entity");
 - (ii) If the Challenger is a consortium and any consortium member or such consortium members' affiliates is an Airline-Related Entity, then such consortium member cannot own or be proposed to own 33% or more interest in the consortium;
 - (iii) If more than one consortium member or such consortium member's affiliates is an Airline-Related Entity, then such consortium members cannot comprise or be proposed to own an aggregate of 33% or more interest in such consortium.



III.5. TECHNICAL QUALIFICATION REQUIREMENTS: CONSTRUCTION EXPERIENCE REQUIREMENTS

To qualify to submit a Comparative Proposal for the Project, Challengers must meet the following technical requirements.

- Construction Experience Requirements;
- Operations and Maintenance Experience Requirements.

Construction Experience Requirements include *:

- Construction experience of Eligible Projects in terms of overall responsibility for designing, engineering and construction, such that the sum total of the capital costs incurred/payments received for such Eligible Projects during the Eligible Period (last 10 years) is at least PhP 2,661.5 million and there is at least one Eligible Project for which the capital costs incurred/payments received is at least PhP 1,102 million.
- Entity providing experience must have a valid license issued by the Philippine Contractors Accreditation Board (PCAB) for Large B Classification/License Category AAA, or in case of a foreign entity, an equivalent license issued by an equivalent accreditation institution in the foreign entity's country of origin.
- Experience can be provided by (i) the Challenger (or its Affiliate), if Challenger is not a consortium, (ii) if Challenger is a consortium, consortium member with at least 33 1/3% equity interest in the consortium (or its Affiliate)
- Eligible Projects mean projects in the Eligible Sector with a minimum capex incurred/ payment received of at least PHP 265.7 mn (no indexation)



III.5. TECHNICAL QUALIFICATION REQUIREMENTS: OPERATIONS AND MAINTENANCE EXPERIENCE REQUIREMENTS

O&M Experience Requirements include *:

- O&M experience on an international airport(s) of at least of 5 million passengers per annum for 3 consecutive calendar years in the past 10 years; OR
- O&M experience of several international airports (i) of at least 5 million cumulative passengers per annum in total for 3 consecutive calendar years in the past 5 years and (ii) with at least one of such airports having traffic of at least 3 million passengers per annum for 3 consecutive calendar years anytime within the last 5 years.
- O&M experience can be provided by (i) challenger (or affiliate), if not a consortium, (ii) consortium member with at least 10% equity interest in consortium (or affiliate) or (iii) Designated Operator (or affiliate)
- Key Personnel Requirements:
 - At least one person with minimum 10-year of professional experience and development experience (i.e. planning, coordination, integration and/ or implementation of the designing, engineering and construction) in at least 3 Eligible Projects, each with a project cost of at least PHP 500 million, with at least one projects having a project cost of at least PHP 1 billion, and with at least one project being an airport;
 - At least one person with minimum 10-year of professional experience and O&M in at least 1 airport (landside and airside facilities) of at least 3 million passengers per annum for 3 consecutive calendar years in the past 10 years;
 - At least one person with minimum 10-year of professional experience and airport commercial development and marketing experience in an airport of at least 3 million passengers per annum for a period of at least 3 consecutive calendar years in the past 10 years.



III.6. FINANCIAL QUALIFICATION REQUIREMENTS

Financial Qualification Requirements include *:

- Minimum net worth of at least One Billion Three Hundred and Forty Million Pesos (PhP 1,340,000,000) or its equivalent as of the latest audited financial statements which must be dated not earlier than 31 December 2022. In case of a consortium, the net worth of consortium members who have an equity share of at least 25% each in the consortium may be added together.
- Challenger must provide evidence that it has the capability to raise loans of at least Two Billion Nine Hundred Million Pesos (PhP 2,900,000,000).



IV.1. BRIEF AIRPORT HISTORY



Bohol-Panglao International Airport (TAG) was conceived to provide a modern facility to serve the increasing tourism on the island of Panglao Bohol replacing the previous Tagbilaran airport which faced capacity constraints.

The first feasibility study of the airport was conducted in 2000 during the Estrada administration, but it was not till September 4, 2012, when NEDA approved a resolution giving the green light for the construction of the airport on a 210-ha plot.

On March 27, 2013, the Japan International Cooperation Agency signed an agreement with the Republic of the Philippines to build the Bohol–Panglao International Airport at 10.78 billion yen under the project name New Bohol Airport Construction and Sustainable Environment Protection Project.

The signing signaled the roll out for the construction of a new airport in the province of Bohol at an island adjacent to Tagbilaran Airport. The original budget of ₱4.8 billion pesos was later increased.

Construction of the airport started on June 22, 2015, following the selection of Japanese Airport Consultants (JAC) for the de-sign and consultancy work on the project, and the consortium of Chiyoda Corporation and Mitsubishi Corporation as the prime contractor for the construction of the project.

In its initial plan, the project was expected to finish in 2016. Finally, the airport opened on November 28, 2018, after long planning and three years of construction, replacing Tagbilaran Airport to support the increased passenger traffic in Bohol due to tourism. The airport serves as a gateway to Tagbilaran and the rest of the Bohol mainland for domestic and foreign tourists. TAG is also less than an hour's flight from Mactan-Cebu International Airport, which is a gateway to the central Philippines for international tourists.

IV. 2. AIRPORT SITE



The airport is located approximately at a 230-hectares site in Barangay Tawala in Panglao.

Airport coordinates are 9° 34'N 123° 46.5'E and airport elevation is 13 m (42 ft) at airfield level. The image shows the location of the airport as well as the location of the previous airport.



M.M.



IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.1 Location and population

- Bohol Province is an island in Central Visayas region ۰ (Region VII), which is the 4th largest economy in PHL. The province of Bohol is divided into 3 congressional districts, comprising 1 component city and 47 municipalities. It has 1.109 barangay.
- Bohol is the 10th largest island in PHL with 654 km of . coastline, 9 seaports that makes it easily accessible to Cebu, Eastern Visayas, Luzon and Mindanao.
- The city of Tagbilaran with its 105.000 inhabitants (2022) is Bohol's main business capital, centre of governance, education and transportation.

Conclusion

- Bohol's population is expected to reach 1.41 million in 2025.
- Outgoing potential is one of the main drivers for the airport development. For the long-term period, positive/negative population change increases / decreases the potential of airport catchment area.
- Bohol has a potential for further traffic development, which is shown by lower mobility factor of 1.2.

- Population 2022 111.6 M
- Population growth ('10-20) CAGR 1.7% 121.4 M
- Population 2030
- Population growth ('24-30) CAGR 1.0%
- Inflation 2022 5.8%
- Unemployment 2022 5.4%

Bohol key facts

٠	Population 2022	1.38 M	(Region VII – 8.1 M)
٠	Population growth ('10-20)	CAGR 0.8%	(Region VII – 1.6%)
٠	Population density	292	(Region VII – 509)
•	Population 2025	1.41 M	(Region VII – 8.4 M)
•	Unemployment 2021	6.5%	(Region VII – 7.8%)

Population Forecast





Source: Philippines Statistics Authority, GlobalData



IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.2 GDP

Philippines

- The economy of the Philippines is an emerging market and considered as a newly industrialized country in the Asia-Pacific region. The Philippine economy is transitioning from one based on agriculture to one based more on services and manufacturing. It has experienced significant economic growth and transformation in recent years.
- The travel and tourism industry contributed 6.2% to the country's GDP in 2022, this was lower than the 12.7% recorded in 2019 prior to the COVID-19 lockdowns.



Region VII / Bohol

- Prior to Covid-19 pandemic the economy of Region VII continued to grow. In the year 2021 and 2022 Region VII recorded again a positive GDP growth of 5.4% and 7.6%. Bohol province grew in 2021 with CAGR of 4.2% and in 2022 with 7.1%.
- Contribution of Region VII to national GDP is about 13.3% (2022) and steadily growing with CAGR 13-22: 4.8%.
- Contribution of Bohol to GRP of Region VII is about 13.3% and stable. Services had the largest share to the economy of Bohol representing about 72.8% share, agriculture.
- In services sector wholesale and retail trade had 67.8% share.









IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.3 Inflation & FDI

Inflation

- **Philippines**: Inflation grew in recent years reaching 5.8% in 2023. As of Jan 2024, the annual inflation rate of the Philippines was 2.5% which is the lowest rate since Oct 2020. The Federal Philippines central bank has also lowered its risk with the adjustment inflation forecast for 2024 to 3.9%.
- **Bohol:** Annual average inflation rate in 2022 was recorded at 5.4%, higher than the recorded inflation rate in the previous year at 2.6%. The inflation for March 2024 in Bohol slowed down to 3.2% from 4.0% in February 2024. This brings the average inflation from January to March 2024 at 3.7%. In comparison to national and regional figures, Bohol's IR in March is lower by 0.5% points than the national and is equal to the regional inflation rate

Foreign Direct Investments

- **Philippines**: FDI inflows declined in 2022 from 3% of GDP in 2021 to 2.3% of GDP in 2022. FDI inflows mainly consisted of investments in manufacturing, real estate, and financial and insurance.
- In the World Bank's 2020 edition of Doing Business Report, Philippines ranked 95th worldwide, for the ease of doing business. (124th place in 2019)
- Main investing countries in Philippines include the Germany, Netherlands, Japan, Singapore, Cayman Islands, USA and UK.
- **Bohol 's** development growth focus in terms of investments are tourism with emphasis on ecological and cultural tourism and agro-industrial development.

(-//~)

Source: Philippines Statistics Authority, Provisional Planning and Development Office Bohol, IMF



Philippines: Foreign Direct Investments (mil \$)





IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.4 Trade

- Domestic trade in the Philippines is heavily reliant on water transport. In 2019, more than 99% of the 25.89 million tons of commodities were traded via water transport, with only 0.03% via air.
- Regions with **high trading activities using water transport** include **Central Visayas** (**Region VII**), Northern Mindanao, National Capital Region, and Central Luzon.
- In 2021 was volume of Region VII's domestic trade 93 bln PHP representing 12.5% of market share. **Only minimum was transported by air.**
- **Region VII's** top exported commodities electronic products, copper metal, other manufactures, machinery & transport equipment, other electronics, gold, furniture & fixtures, processed food & beverages.
- The major trading partners of the region are China, Vietnam, Thailand, USA.

REGION VII FOREIGN TRADE (FOB MIL USD)





Conclusion

- Region VII is home to 54 operating economic zones or ecozones. None of them is located on Bohol Island. However, development of such zones is planned also on Bohol island.
- Infrastructure upgrade is a key to boost trade and increase investments.
- There is a need to include more products beyond traditional output of the region.
- The goal of Region VII is to become a leading growth center in the country especially in trade & industry, science & technology innovation, tourism, and logistics.

Source: Department of Trade and Industry, Central Visayas 2022 Development Report, Central Visayas Regional Economic Situationer, Regional Development Plan 2023-2028

34

IV. CURRENT AIRPORT ASSESSMENT

IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.5 Incoming tourism - Philippines

- Historical tourism of international arrivals to Philippines shows stable development reaching 8.3 million in 2019.
- Average annual growth of international tourists during 2009-2019 was 7.9% (2009-2023: 1.4%)
- The effect of pandemic Covid-19 on tourism was drastic but the recovery is on the way
- Share of intl. tourist arriving by air is around 98%.

Conclusion

- 10.3 million international tourist arrivals in 2027
- Safety, infrastructure and connectivity play major role in attracting international tourists.
- Development of new attractions and magnets are prerequisites for international tourism growth.







3000.0%

2500.0%

2000.0%

1500.0%

1000.0%

500.0%

0.0%

-500.0%

IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.6 Incoming tourism – Bohol Province



 Historical tourism data shows stable and sharp development proving attractiveness of Bohol as tourism destination.

• 720.400 international tourist arrivals in 2019 (333.400 in 2023).

• Average annual growth of international tourists during 2009-2019 was 22.4% (2009-2023: 9.3%).

• The effect of pandemic Covid-19 on tourism was drastic but the recovery is on the way.

Conclusion

- Bohol's international recognition has room to grow.
- Variety of attractions and magnets (e.g. golf park, specialised tourism, sport events, etc.) are prerequisites for international tourism growth in the province.
- Increased connectivity by air is a key in attracting international tourists to Bohol.

Source: National Tourism Plan, Department of Tourism, Central Visayas Regional Development Plan, Cebu daily news



IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.7 Incoming tourism – Bohol Province

Main motivation to visit Bohol

- Nautical tourism as swimming, yachting, sailing, diving, etc.
- Active tourism cycling, hiking, free climbing, other sports
- Rural tourism recreational travel to countryside as reaction to "ecological pressure" in cities, health tourism.
- Specialised namely business, etc.
- Nostalgic tourism tourist trips to the birthplaces, the last residence of ancestors.

TOP destinations

- Iconic landmark the Chocolate Hills. In 2023, it was named the Philippines' first UNESCO Global Geopark.
- Bohol is known for its white-sand beaches, islands, and some of the toprated snorkeling and best diving spots in the Philippines.
- Hinagdanan Cave, one of the most beautiful caves in the Philippines
- Alicia Panoramic Park
- Tarsier Conservation Area
- Danao Adventure Park
- Historic Churches
- Loboc River

Source: Guide to the Philippines, Behold – Bohol




IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.8 Incoming tourism – Bohol Province

Bohol Province: Int'l tourist arrivals



Conclusion

- Market share of Bohol in terms of international tourist arrivals to Philippines was until 2018 continually growing and recovered in 2023 (6.7%).
- Sufficient higher quality accommodation facilities will attract additional tourism flows.

Bohol Province: Top 10 countries in terms of int'l arrivals							
CANADA	9,264.0	(2019)					
	11,805.0						
GERMANY	11,896.0						
FRANCE	14,236.0						
OTHERS AND	26,486.0						
USA	29,895.0						
TAIWAN	31,391.0						
JAPAN	32,281.0						
KOREA		117,265.0					
CHINA			322,140.0				

Market share of Top 10 countries

- 84.2% in 2019 (73.6% in 2022)
- Market share remains higher than 70%
 Main visiting destinations in 2019
- Panglao (84,2% market share)
- Tagbilaran (7.3%)
- Dauis (5.0%)

Accommodation Facilities 9.975 2022 764 10,488 2021 845 10,231 2020 834 8.905 2019 790 8.699 2018 775 7,030 2017 518 7.019 2016 442 4.785 2015 360 4,954 2014 4.000 6,000 8,000 10,000 12,000 Rooms Accommodation facilities

• Investment growth resulted in substantial increase in the number of accommodation facilities from 2014-2021. Figures are expected to bounce back with on-going construction projects.

Development Framework (Provincial Planning and Development Office)

• Bohol as a prime eco-cultural tourism destination and a strong agro-industrial province in the Visayas.

Source: Department of Tourism, Central Visayas regional development plan, GlobalData, Bohol Economic Factbook



IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment

1.9 Domestic tourism – Bohol Province



Conclusion

- Only about 35% of domestic visitors are accommodated in official tourism and accommodation facilities. Hence, we can assume that about 1.9 million domestic tourists visited Bohol in 2023.
- Market share of Bohol Province in terms of domestic trips is very low.
- Among top 10 leisure destinations for domestic tourists.

Bohol Province: Domestic Overnight Tourism (mil)



- Historical tourism data show rather stable development.
- 0.9 million domestic trips in 2019 (officially accommodated).
- Average annual growth 2009-2019 was 14.7% (2009-2023: 8.5%).
- The most preferred locations in Bohol in 2019: Panglao (49.6%), Tagbilaran (33.1%), Ubay (3.5%), Dauis (3.4%) and Talibon (2.9%).

Bohol Province: Total tourist arrivals by air



Arrivals by air

- Even with introduction of international traffic in 2018, the share of tourists (official + unofficial) arriving by air through TAG is rather unstable.
- Share of domestic visitors arriving by air on domestic flights grew from about 21% in 2016 to 27% in 2019 (33.7% in 2023).

Source: Department of Tourism, Provincial Planning and Development Office, foi.gov.ph



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.10 Outgoing tourism - Philippines



Conclusion

- About 10.1 million international trips of residents in 2027.
- Asian market is with share of 73% by far the biggest market.
- Middle East market is with 17% few times bigger than North American (6%) or European market (2%).



- 1.7 mil international trips of residents in 2022 (7.7 mil in 2019) (CAGR 09-19: 7.6%)
- Main purpose of travel is leisure (41.2% in 2019), followed by business purposes (39.4 in 2019)
- Average length of stay is 10.6 nights steadily growing with CAGR 09-23: 0.9%
- Main mode of transport is by air (98%)

Philippines: Top 10 countries in terms of int'l departures of residents (2023)



Market share of Top 10 countries

- 72.4% in 2023
- Share remained stable over the years

Highest CAGR 09-23

- Venezuela 25.2%
- Maldives (13.5%)
- Sri Lanka (13.4%)

Source: Department of Tourism, GlobalData



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.11 MICE tourism

Philippines

- MICE is a subsegment of business travel, but it can also involve a leisure component.
- Philippines ranks 47th with 71 meetings held in 2019.
- The most developed Asian country China in terms of MICE hold above 500 events annually.
- The most popular MICE destinations in Asia
 - 2019: Singapore, Tokyo, Bangkok, Seoul, Taipei
- In Philippines Manila and Cebu are recognized as MICE destinations



Conclusions

- Bohol is not recognized as MICE destination.
- Bohol is experiencing a shortage of large-scale venues and hotels, but development is on the way.
- Bohol administration sees capturing MICE tourism market as one of the opportunities to investigate and a driver for Bohol's growth and development.
- International venues in Bohol combined with leisure tourism could be one of driving factors for int'l tourism growth to the region.



Prerequisites for MICE in Bohol

- International route network and easy access
- Sufficient business hotel capacity (4-5*)
- Modern convention facility
- Sightseeing, cultural events & health and recreation area

Source: ICCA, Department of Tourism, TTGmice



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.12 Ethnic travel

- Today the Philippine diaspora is the largest of its kind in the world. Over ten million Filipinos **more than ten per cent of the country's population** are living temporarily or permanently overseas.
- As of 2019, there were over **12 million Filipinos overseas**.
- Main recipient countries: USA, Canada, Saudi Arabia, UAE and Australia
- Top provinces of origin: NCR, Cavite, Pampanga, Cebu, Pangasinan, Laguna
- In some countries Philippines have their own schools: Bahrain, Greece, KSA, Kuwait, Libya, Oman, Qatar, UAE, etc.



Conclusion

- Even if destination countries of migrants might change, migration will not cease.
- Also, it is expected that current migrant traffic will mature and turn into a mix of New migrants' traffic and VFR (visiting friends and relatives) traffic. A large portion of migrant traffic is typically temporary with new migrants replacing the portion that return for lifestyle reasons or as economic opportunities develop in Philippines.



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.13 Cruise & Fly concept

- 9 seaports are located around Bohol Province, making it very accessible but only 1 can accommodate cruise ships:
 - **Tagbilaran City Seaport**, Loon Cruise Ship Port, Tubigon Seaport, Clarin Seaport, Getafe Seaport, Talibon Seaport, Ubay Seaport, Tapal-Ubay Seaport, Jagna Seaport)
- Cruise ships to Bohol Island Philippines dock at Tagbilaran seaport.
- It is well-equipped and spacious. It has a 265.8 meters berth length and 2 dedicated berths for fast boats.
- Cruise tourism in Bohol started in 2005 with the arrival of cruise ship Minerva owned by Swan Hellenic, a Cyprus-based company.
- Only 1-3 international cruise ships per year offering stop-over for few hours.

Why Cruise & Fly?

- The "Cruise & Fly" (C&F) concept, to offer packages of flights and transfer on ships, has high potential for Bohol Province in the long-term.
- Most cruise lines use a nearby airport to ensure convenience.
- Value-added to the regional income.





Prerequisites for Cruise & Fly Concept

- The port and the airport facilities shall offer high standards.
- Developed flight network.
- Cooperation between ports, airports, cruise & fly operators and other tourism related stakeholders not only on regional but country level.
- Joint identity and promotion of the destination.



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.14 Basic information

- Bohol-Panglao International Airport (TAG) is the **first eco airport** constructed on Panglao Island, Bohol Province in central Philippines. Built on an area of 216ha.
- The airport opened in November 2018 replacing Tagbilaran Airport to support Bohol's increased passenger traffic due to tourism. With a bigger space, more flights to the island can now be accommodated.
- It is primary gateway to and from Bohol Island. It was designed to accommodate up to 2 million passengers.
- While the airport is billed as an international airport, Bohol Airport is classified as a Class 1 principal (major domestic) airport by the Civil Aviation Authority of the Philippines (CAAP).
- The airport is located 10 minutes from the famous Alona Beach with hundreds of hotels and resorts and 30-minute drive from Tagbilaran city.
- RWY 2.500m x 45m, land available for expansion.

	2010	2015	2019	2020	2021	2022	2023	CAGR 18-23	
Passengers									
Dom (M)	0.57	0.78	1.30	0.29	0.25	1.14	1.30	1.9%	
Intl (M)	-	-	0.03	0.02	-	0.05	0.35	8.8%	
Movements									
ATMs	4,664	5,686	10,267	3,222	2,928	8,082	11,124	2.1%	
Cargo (tons)									
Cargo (t)	4,791	3,604	6,370	2,475	3,380	3,514	NA	NA	
Source: CAAP, DOTr, googlemaps, discoverphilippines.com									





IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.15 Traffic

- Airlines serving the airport: Air Asia, Cebu Pacific, Philippine Airlines, Jeju Air, Air Busan, AirSwift
- Destinations:
 - Domestic: Manila, El Nido, Davao
 - International: Seoul, Busan
- TAG has the capacity to accommodate four large jets, including Boeing 777s and Airbus 330s, or seven small jets such as Airbus 321s or 200s.
- In 2023 the airport recorded 1.26 MAP which is about 8% below pre-pandemic traffic in 2019 (1.33 MAP).

Statement (Central Visays regional development plan)

- "The opening of Terminal 2 of Mactan-Cebu International Airport and of the Bohol-Panglao International Airport, increased security measures, and increased inter-island connections and tour packages."
- *"Keeping the tourism industry vibrant in 2019 were the mounting of new flights into the region, conduct of international big-ticket conventions, and expanded menu of tourism activities that made tourists stay longer."*





Source: CAAP, DOTr, googlemaps, discoverphilippines.com

K



IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.16 Catchment area

- The direct **catchment area** indicates the basic potential for the originating traffic (excluding transit/transfer). The **yellow area** represents the potential catchment area, calculated with help of gravity model.
- $GM = Dab/(1 + \sqrt{(popA/popB)})$, where
- Dab distance between the cities with competing airports,
- pop A population of city A,
- pop B population of city B,
- The gravity model calculation (takes into account only the distance between two cities, where competing airports are located, and the number of inhabitants of those cities)
- The **green area represents** the realistic catchment area where TAG can get its outgoing passengers.

Conclusion

- Main competing airports limit the catchment area of Bohol-Panglao airport for O/D outgoing traffic segment.
- Considering the road quality and main competing airports, the realistic catchment area of Bohol-Panglao airport for O/D outgoing traffic segment covers currently about 1.4 million inhabitants.





IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.17 Competing airports

Conclusion

- In the future, some of the airports may represent potential threat for further development of TAG:
 - Main competing airport is Cebu airport (CEB) due to its relative proximity and very good ferry connection to islands in the region including Bohol island. Airport Cebu represents threat to TAG in both incoming and out-going traffic.
 - Ubay airport (RPSN) does represent threat to TAG due to its positioning as community airport envisaged to serve general aviation traffic.
 - Dumaguete (DGT), Siquijor (RPVZ), Camiguin (CGM), Hilongos (RPVH) and Maasin (RPSM) airports do not represent any threat to TAG due to extensive travelling time.





IV.3. MARKET/COMMERCIAL/TRAFFIC

1. Market Assessment

1.18 Summary

- Tourism sector in Bohol is still rather underdeveloped but with the right marketing activities its incoming potential can be projected into the future.
- The amount of incoming international tourists are coming to the island via TAG is very low, showing the future potential for TAG if the flights to target markets are offered.
- The catchment area of TAG shows lower outgoing potential of 1.4 million inhabitants but high incoming potential, where the strategic focus should lie on.
- Airport Cebu is main competition to TAG due to its relative proximity and very good ferry connection to islands in the region including Bohol island.
- Bohol is becoming more and more recognized as tourism destination with the tourism strategy focused not only on beaches but other products supporting the expansion of tourism routes.
- A main focus should be placed on making the island more accessible as such, the development of TAG would boost the traffic mainly for incoming tourism but also for outgoing travel.
- MICE is another potential driver bringing international and domestic tourists to the island via TAG.
- Cruise & Fly concept will enhance Bohol attractiveness.





IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment - SWOT Analysis



parking, hotel, entertainment centre

including casino, etc.)

48



IV.3. MARKET/COMMERCIAL/TRAFFIC 1. Market Assessment - Strategic Diagnosis

Strategic Success Factors

- Geographical location as gateway to Bohol
- Attractive volume international and domestic tourism
- Long-term international and domestic tourism potential
- Extension potential for nonaviation activities
- Attractive Catchment Area
- Cruise & Fly airport potential
- MICE potential

Strategic Problem Zones

- Make TAG more attractive for domestic and international carriers
- Expansion of direct connections giving special attention to incoming leisure tourism
- No attractive aeronautical tariff regime for Concessionaire
- Underdeveloped non-aeronautical services and revenues



IV.3. MARKET/COMMERCIAL/TRAFFIC 2. Traffic Analysis

Total Passenger Traffic

- Historic traffic data at TAG Airport spans from 2010 to 2023.
- Traffic segments include:
 - o Domestic
 - International (introduced in 2018)
 - o General Aviation
 - o Military
- The 2010-2018 period reflects traffic at Tagbilaran Airport; starting in 2019, data pertains to Panglao Bohol International Airport.
- From 2010 to 2013, passenger traffic development was inconsistent. However, from 2014 to 2019, TAG Airport experienced consistent growth in total passenger traffic, with the introduction of the International segment in 2018.
- The pandemic years (2020-2022) led to a decline in traffic, particularly in 2020 and 2021, followed by the beginning of recovery in 2022.
- In 2023, overall traffic exceeded the pre-pandemic volume of 2019 by 24.1% with a remarkable growth of international passengers.



Historical PAX Development



IV.3. MARKET/COMMERCIAL/TRAFFIC 2. Traffic Analysis

Passengers and Airlines

- Air Asia/Zest Air, Cebu Pacific, and PAL Airlines have dominated the TAG Airport market throughout the investigated period (2016-2022), consistently holding over 95% of the total passenger volume.
- Korean Air entered the TAG Airport market briefly in 2022, marking its first appearance.
- Other notable carriers include Jeju Air, with 49,746 passengers in 2022, and Cebgo, which had no traffic recorded in 2021-2022.





IV.3. MARKET/COMMERCIAL/TRAFFIC 2. Traffic Analysis

ATMs and Airlines

- Air Asia/Zest Air, Cebu Pacific, and PAL Airlines also dominated the TAG Airport market in terms of ATM volumes throughout the investigated period (2016-2022), averaging nearly 75% from 2016 to 2019 and rising to 94.4% in 2022.
- General Aviation traffic accounts for 23% of the total ATM volumes.



IV.3. MARKET/COMMERCIAL/TRAFFIC 2. Traffic Analysis

Monthly Distribution (PAX)

- The busiest months for passenger (PAX) volume are May (in 2016, 2018, 2019, and 2022) and December (in 2017), each representing 10.5% of the total annual PAX traffic.
- Calculated one-way PAX Peak Hour:
 - o 2019: 326 PAX/h
 - o 2023: 449 PAX/h





1000

900

800

700

600

500

400

300

200

100

0

January

February

2016

111ga

2017

way

2018

IV.3. MARKET/COMMERCIAL/TRAFFIC 2. Traffic Analysis

Monthly Distribution (ATM)

- The busiest month for ATM volume corresponds to the busiest months for PAX traffic:
 - May (2016, 2018, 2019, 2022) accounts for
 9.6% of the total ATM volume
- Calculated two-way ATM Peak Hour:
 - o 2019: 3 ATM/h
 - o 2023: 4 ATM/h



AUBUST

-2020

Septembe

KIU,

2019

Monthly Traffic Distribution (ATM)



November

2022

October

December



IV.3. MARKET/COMMERCIAL/TRAFFIC 3. Commercial Analysis

Commercial Analysis

Actual status shows very low non-aeronautical income for TAG.

The main reasons seem to be the following:

- Low attractivity and variety of shops and F&B outlets
- Reduced space for commercial activities:
 - Landside Terminal space for commercial activities 234 sqm
 - Airside Terminal spade for commercial activities 998 sqm
- Low landside development



IV.4. Existing Site Layout



- 3. Powerhouse
- 4. ATC / Administration
- 5. ARFF
- 6. Water Tank / Pump House



IV.4. Existing Terminal Level 0







- 1. Entrance security
- 2. Check-in
- 3. Baggage sorting
- 4. Gates international remote
- 5. Gates domestic remote
- 6. Immigration

- 7. Baggage reclaim International
- 8. Baggage reclaim domestic
- 9. Duty Free Shop arrival



Legend

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



IV.4. Existing Terminal Level 1



Legend

- 1. Gates international contact
- 2. Gates domestic contact

Design capacity 1.8 MAP	Aircraft positions 7 Code-C
Passenger terminal	Check-in
14.000	20
sqm	counters
Security screening	Baggage reclaim
4	2
lanes	belts

Legend

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop

IV.4. AIRPORT ACCESS



Access Road

There is a new dual-carriage way road connects the southern part of the island with the Dauis -Panglao Road. There is a stretch of road that is located inside the airport site running parallel to the runway and airside fence.

This poses a few security and safety issues. First due to the elevation of the road in relation to the perimeter road and airside fence, allows for easy access to the airside. There have also been incidents reporting of laser points and drone activity in the area. It is recommended to raise the height of the fence in the area to provide efficient protection and potentially install CCTV as well.

The road also intercepts the approach lights of runway 21. There is a checkpoint in the area to control access and monitor the area.



Main Access Road



IV.4. AIRPORT ACCESS



View of Perimeter Road from Access Road

Access Road and Airside Fence

Threshold 21 road intersection

IV. 4. AIRPORT ACCESS



Secondly, there are multiple houses and small commercial outlets alongside the road which have direct access to the airport site road and share the plot boundary.

Furthermore, access from the southern part of the road is not possible as left turn is currently blocked, forcing vehicles to U-Turn at a later point. It is also recommended to resolve the access in a more efficient manner providing equal access for vehicles from both directions.

There is a security check point on the main access road to the airport controlling all vehicles accessing the site. There is no automated or manual plate recognition system.

During the visit no traffic congestion was observed on any of the access roads or at the checkpoint



Buildings on the edge of site fence.

IV.4. AIRPORT ACCESS



Transport Provisions

There are regular buses connecting the airport with the city of Tagbilaran. There is no designated taxi rank. Taxi services can be hired directly from the driver on the car park or on the 3 mobile desks located in the curbside.





IV.5. TECHNICAL ASSESSMENT: Perimeter fence

Site and Perimeter fence

The site has a fence around the property boundary, The property boundary is continuous around the airfield and located adjacent to the airside fence. The southern area is located outside the access road limiting with some properties having direct access to the road interrupting the fence. There are also a few areas near the main entrance where the site fence is not visible or can be identified. The fence is metal with concrete block columns. There is no CCTV or aby intrusion or security control system, The airside fence is metal also with no CCTV in any area. As previously mentioned, due to the level difference with the access road the current height does not provide sufficient coverage. There are several small watch towers alongside the perimeter, most of them where manned at the time of the visit. There are several crush gates alongside the perimeter road.





Ste and Airside Fences in the north area of the Airfield.

Watch Tower & Crush Towers alongside Airside Fence $63\,$



IV.5. TECHNICAL ASSESSMENT: Airfield

The Airfield configuration consists of a main runway (03/21) of 2,500 length and 45 m width. There is a turning pad on each of the thresholds. There is a 7.5 m paved runway shoulders, 2680 x200 m runway strip and 300 m runway end safety area at both thresholds

There are turning pads at both thresholds as well. All paved areas are using flexible pavement.

There are two perpendicular taxiways of 27.5 m width also in flexible pavement with shoulders of 7.5 m also paved and an overall strip of 100 m wide. The two taxiways connect the runway to an apron distribution taxi lane (in concrete) allowing access to 7 parking positions for Code C aircraft, three of which are contact positions. There is no dedicated area for general aviation, which considering the airport serves mainly as a tourist destination may allow it to attract some further traffic and business.

During the visual inspection, there were no major issues detected in the runway or taxiway pavements. There was no sign of deflection or pavement failure. Also, there was no water accumulation observed during the visit, despite there was rain for several days.



Runway markings and AGL.



IV.5. TECHNICAL ASSESSMENT: Airfield

There are some areas with minor rubber deposits around the thresholds that shall not constitute a safety risk now. The runway markings at the thresholds need to be repainted.

Although the markings on the runway and taxiway are correct in terms of the dimensions, location and number, there is a discrepancy in color on the taxiway edge (currently painted in orange instead of yellow that needs to be rectified).

During the visit the presence of multiple birds was observed. The airport staff cited multiple regular incidents of bird strikes.

There are also multiple issues with the vegetation control on the airfield area specially around the drainage channels. The absence of proper machinery and manpower leads to vegetation overgrow which also Favors further presences of birds.

Currently there is no specific procedure for bird management.



Taxiway markings with wrong colour.



IV.5. TECHNICAL ASSESSMENT: Airfield



Vegetation overgrows at drainage channels.



Bird Presence in Apron Area



IV.5. TECHNICAL ASSESSMENT: AGL & Navigation Aids

Overall set of Navigational Aids are considered adequate for the operational requirements of the airport as well as the category declared:

- AGL: There is only runway and taxiway lighting. All beacons seem to be in good condition with no apparent maintenance issues.
- There is ILS Cat I operating from runway 21. All components are functional and well maintained daily.
- There is functioning PAPI at both runway ends.
- There is also a D-VOR located adjacent to the runway, also operational and well maintained.
- The meteorological station and wind indicators are all operational and also subject to regular maintenance.





IV.5. TECHNICAL ASSESSMENT: AGL & Navigation Aids

The Nav Aids are adequate to the operational requirements of the airport fulfilling the runway availability according to ICAO requirements. The number of flights deviated due to weather conditions is marginal. Confirmation of this fact is pending the information about airport operations.



VOR-DME



IV.5. TECHNICAL ASSESSMENT: Apron Management

The apron is built in concrete with 7 parking positions, 4 for Code E with A330 as the largest aircraft and 3 Code Cs. The apron can be used for 4 code E or 7 code C simultaneously. Three of the Code E positions are contact. There are no major cracks observed in the pavement but multiple issues with the expansion joints material were observed. A general change of the material used is required.

There is sufficient parking for GSE vehicles alongside the head of stand road. All vehicles are diesel. All markings for the PBBs are correct and up to code.There are no fixed PCA units or 400 hz. There are several mobile 400 Hz units used mainly for Cebu Pacific. There is no docking system at the apron. Marshalling is used for docking operations. The boarding bridges are in good condition and subject to regular maintenance. The passenger boarding bridges units with the condensers located at apron level and are connected to the terminal building by means of a have AC long fixed link.



Stop bar of Code E& Cstands



IV.5. TECHNICAL ASSESSMENT: Apron Management



Apron Markings and GSE stagging areas



Fixed link to PBBs



IV.5. TECHNICAL ASSESSMENT: Apron Management

The GSE road consist in two lanes around the airfield perimeter. It is built with flexible pavement and lanes are properly mark. There is no visible damage to the pavement. Apron has a head of stand (flexible pavement) and back of stand (concrete) double lane GSE road. In the area in front of the terminal there is also a secondary GSE staging area and road to release traffic and congestion to the main apron. This area is used for the BHS vehicles as well as buses for remote departures and arrivals.



Apron and GSE Road & Perimeter Road



Head of Stand GSE Road



IV.5. TECHNICAL ASSESSMENT: Landside parking and curbside

There is an open-air car park with no shading in front of the terminal building accessible to the public and with a controlled entrance by a guardhouse. There is no car park management system or exit barrier. All charges are collected manually.

The car park was mostly full during the entire visit. Further consideration to change the charging structure and increase the capacity via densification may be necessary to better manage the facility and increase revenue generation.

There is a toilet block adjacent to two retail outlets used mainly for waiting area for taxi drivers.



Departure curb

Car Park


IV.5. TECHNICAL ASSESSMENT: Landside parking and curbside

The curbside in front of the building is a large area sheltered area. There are 2 airlines offices (Philippine Airlines and Air Asia) as well as 2 ATM machines and 1 money changing kiosk.

There is a 4-lane road providing access to the curbside. There are pedestrian crossings linking to the car park in front. Parking is allowed for drop-offs and pick-ups alongside the road. No congestion was observed during the site visit.

There is a small convenience store and toilet block in the parking area.



Curb side



IV.5. TECHNICAL ASSESSMENT: Terminal

The Terminal Building expands across 2 levels:

• The ground floor comprises the checking-in area, security screening, passport control, back office, arrival area as well as bus gates.

• The first floor includes boarding gates, arrival corridor and back of house BHS system.





IV.5. TECHNICAL ASSESSMENT: Terminal departure

Departure Flow

Following the process at Filipino and Asian airports, passengers need a valid ticket to access the terminal building. There is a manual access control point at the curbside monitored by an external security company. Following the verification, the passengers are required to screen all their luggage and go through an arc metal detector.

This security control acts a baggage whole security check as the current baggage handling system is not operational. It is also used to screen some goods from the cargo terminal to be used as bulk cargo as some of the cargo operators like Philippine Airlines do not have screening machines at the cargo terminal.



Terminal Entrance Security Screening



IV.5. TECHNICAL ASSESSMENT: Terminal departure

There are currently two entry points and two sets of machines, both operational. No congestion was observed during the visit.

The overall check-in hall is well indicated and has plenty of space. In includes Cargo screened at Check in Area, the check in counters, three retail outlets, government service desk and ample seating.

There are 20 check-in counters and 4 additional and self-checking counters. The airlines operating at the terminal are:

Philippine Airlines (PAL) 6 traditional counters

Air Asia 4 traditional counters & 1 self-Checking

Cebu Pacific 5 traditional counters and 3 self-checking kiosks.

Jeju Air: 4 traditional counters

Air Swift: 1 traditional counter



Cargo screened at Check in Area



IV.5. TECHNICAL ASSESSMENT: Terminal departure

Although the overall number of counters should be sufficient for the traffic volumes and peak passenger numbers (pending a calculation to confirm based on the flight schedule), the airport team highlighted that they experience shortage sometimes due to the fact the counters are fixed allocated to the airlines hence there is no flexibility to deal with peaks.







IV.5. TECHNICAL ASSESSMENT: Terminal departure

All traditional counters except the last 2 Jeju Air counters (counters # 19 & 20) are connected to a unidirectional baggage belt connected to an incline belt to the first floor where the baggage handling system is located.

At the time of the site visit the BHS system was not operational. According to the airport technical team they were waiting for some further technical improvements (details were not specified). A dedicated screening machine at the end of the check in counters was used for the screening of bags and cargo. Bags were manually transported to the baggage make up area located in the vicinity of counter 20.





IV.5. TECHNICAL ASSESSMENT: Terminal departure



Baggage Belts connecting to BHS area



Baggage Screening Machine and access to make up area



IV.5. TECHNICAL ASSESSMENT: Terminal departure



Orculation and Seating area.



IV.5. TECHNICAL ASSESSMENT: Terminal departure



Check in area commercial outlets.



IV.5. TECHNICAL ASSESSMENT: Terminal departure

After check-in passengers can access the security control area which is shared between international and domestic providing flexibility to tackle peaks.

There are a total of 4 lanes using traditional screening machines and arches.

There are two types of machines L3 and Smiths Detections. The L3 were originally provided with the loan from airport and the Smith Detection are coming from the old airport.



Security screening area



IV.5. TECHNICAL ASSESSMENT: Terminal departure

The departures hall is divided into two levels. The ground level has bus gates and most of the seating as well as commercial outlets. On the upper level the contact boarding gates can be found as well as a shared departure-arrival shared corridor.

International and Domestic areas are segregated but they are connected via glass doors so could be potentially used as swing gates to help manage peaks.

There are a total of 4 gates, 2 remote domestic ones (ground floor gates 8 & 9),2 contact domestic gates on upper level (gates 6 &7) and 2 remote international ones (1 & 2) at the ground floor and 2 on the first floor (3& 5). Gate 5 acts as a swing gate with domestic gate 8. The space on the ground floor is ample and well maintained but there is insufficient seating and commercial offering. There are only 2 small F&B kiosks located on the ground floor.

In total the seating on the ground floor are 260 seats and 257 upstairs in the domestic area.

There is no access control system for the airside gates. Counters at the domestic gates do not have any scanner, boarding pass readers or machinery for automatic passenger control.



Departures Hall



IV.5. TECHNICAL ASSESSMENT: Terminal departure



Ground Hoor Domestic Remote gate area.



IV.5. TECHNICAL ASSESSMENT: Terminal departure

The upper level is narrow and cannot accommodate additional seating. The fact the contact gates are located in the area where the lesser number of seats are located leads to congestion during simultaneous boarding.

Both levels are connected by stairs, 1 escalator and 1 lift. There are toilets in the area all in good condition.



Upper domestic departure level.

The international departure flow mirrors the domestic one with the addition of passport control. The number of seats in the upper floor is 206 and 40 downstairs.



IV.5. TECHNICAL ASSESSMENT: Terminal departure

Gates 3& 5 are located in the upper level and Gate 1 & 2 are located in ground level

There are 8 Passport control checks on departure and 8 on arrival. All were manned during the arrival and departure of international flights.





International Remote Gate

Departure & Arrival passport control



IV.5. TECHNICAL ASSESSMENT: Terminal departure

There are no commercial outlets in the international departure area.

Overall, there is space for further densification of seats or increase of the commercial offering. Reconfiguration of the space is recommended to comply with international standards in terms of seating and provide additional revenue generation opportunities. Further flexibility using swing gates between the international and domestic areas can be also achieved.



First Floor connecting corridor between domestic and international areas.



IV.5. TECHNICAL ASSESSMENT: Terminal arrival

Arriving passenger from Contact stands will use the same airside corridor on the first floor. The corridor has a swing gate allowing for the international gate to be used as domestic.

Domestic passengers connect via lift / escalator or stairs to the baggage reclaim area located on the ground floor.



Arrival corridor and connection to baggage daim.



IV.5. TECHNICAL ASSESSMENT: Terminal arrival

Arriving passengers from remote positions will walk on the apron to the same hall accessing it from a lobby located on the opposite side. It is important to mention there is no dedicated path for passengers at the apron and although the current activity and number of vehicles circulating is low there are some safety concerns for the lack of control. Equally passengers have direct access to tuck and dollies with departing baggage.

There is a shared arrival hall for international and domestic passengers segregated by a screen allowing for swing operation between the belts. In the normal configuration there are 2 by 45 m flat belts, one for domestic and one for international. The space is considered adequate and there is provision for toilets, trolleys, and general information services.

Nevertheless, the number of belts and space may be insufficient depending on the peak. This is an area where further expansion may be considered moving forward.



Arrival Hall



IV.5. TECHNICAL ASSESSMENT: Terminal arrival

There is an independent exit for international and domestic areas. The international area has a custom check point located at the exit equipped with 2 screening machines.

Arrivals curb side for domestic and international passengers is shared with departures area. There are no restrictions for meters and greeters or passengers to remain in the area which is fully sheltered. All vehicles are allowed to access the area for pick up / drop off.

Besides 2 airlines offices (Philippine airlines and Air Asia) there is a money changing booth, two ATM machines and 3 transport & tourist desks.



Arrival Hall



IV.5. TECHNICAL ASSESSMENT: Baggage handling

There is a baggage handling system at the airport although is not operational at the moment, due to software issues. Maintenance team was not able to confirm the exact nature of the issue or when was scheduled to be repaired. Also, there was no indication that despite the system allows for multiple levels of screening this will reduce or eliminate the need to baggage screening at the entrance of the terminal.

System is configured with a single collecting belt connected to 18 of the check in counters. The belt has an incline section at the end near counter 20, connecting with the bag processing area located at level 1 (room is accessible via the domestic departure area).





IV.5. TECHNICAL ASSESSMENT: Baggage handling

Upcoming belt is connected to a Level 3 screening machine. After the screening there is single loop and a rejection point linked to a roller deck beside another screening machine to conduct further level of screening. Cleared bags are link to a down conveyor and a single make up area.

Currently as mentioned before, since the system is not operational all bags area manually screened at level 1 at the screening machine located besides check in counter 20 and then manually transferred to the makeup area.

Arrival baggage operation is entirely manual. Baggage is transported in dollies to the outside of the reclaim area and manually place on the belts.





IV.5. TECHNICAL ASSESSMENT: Terminal maintenance and comfort levels

There are two main electrical rooms serving the terminal building, one located by the baggage make up area and the other between the arrival and departure area on the curb side. Both rooms are in good condition but issues with the mechanical ventilation specially on the besides the make-up area can create a long-term maintenance issue on some of the critical systems for the terminal.

There is a general control room for MEP systems located on the ground floor adjacent to the check in hall which allow for monitoring and configuration of main MEP systems in the terminal.

The chillers are located in the roof as well as multiple solar panels providing energy for the building operation. The overall status of the equipment can be considered good and no major maintenance issues have been reported or mentioned during the site visit.

The overall maintenance and cleanliness are considered adequate. All essential services and systems were operational and regular cleaning operations were always observed.

Temperature at all areas was within confront level. No issues were reported in terms of performance of HVAC systems. Major power failure occurring in the island during 2023 let to generators being operational for over 1 month leading to some of the HVAC loading to be shut down and creating discomfort for passengers.



IV.5. TECHNICAL ASSESSMENT: Terminal maintenance and comfort levels



Terminal Main Electrical Room



Terminal Roof Chillers and Solar Panels



IV.5. TECHNICAL ASSESSMENT: Terminal maintenance and comfort levels



Terminal Systems Control Room

IV.5. TECHNICAL ASSESSMENT: Cargo terminal

The Cargo Terminal building is in the western side of the terminal entirely on the landside. There is a perimeter road leading to an airside gate on the western end of the campus.

The building is a single-story facility divided into 4 areas each dedicated to an independent cargo operator: Cebu Pacific, Air Asia, Philippine Airlines

Each section works independently from each other. All of them are mostly empty with no dedicated cargo equipment or internal compartmentalization. Only the Cebu Pacific area has a screening machine for small packages. Therefore, all major items or any of the items from the other operators need to be transported to the terminal to be scanned.

Currently there are two operators, Philippine Airlines occupying two thirds of the building and Cebu Pacific. There is no separate mail area well as dangerous goods or vaults. The operation in the terminal is 100% manual. Since there are no dedicated freighters operating at the airport, all cargo is belly cargo.

The goods transported are basically private packaging with some minor volumes of banana locally produced.







IV.5. TECHNICAL ASSESSMENT: Control tower

Control Tower is attached to the Administration building, The admin building is organized in two floors and comprises the offices of the main administration and security departments of the airport. The building is well maintained in general and does not have or space issues.

The cabin has 360 degrees view although consoled only covered the airfield. There are two consoles operating at all times with 2 active controllers. Each shift is composed of 6 controllers.

The visibility of the airfield is good including the apron and other movement areas. Area control is done from the central CAAP offices in Manila.



Control Tower



IV.5. TECHNICAL ASSESSMENT: Fire Fighting Station

The fire fighter station is in the airside on the eastern side of the terminal building. The building has a single level with a garage in the center dividing the common areas in two.

The Station is category 7 with 3 vehicles stationed. There is a rapid access vehicle. The vehicles have direct access to one of the taxiways and runway.

There is a practice area with a fuselage located in the vicinity of the station.



Fire Station Building



Fire Fighting Station Car park



IV.5. TECHNICAL ASSESSMENT: Control Tower & Administration building

Control Tower is attached to the Administration building, The admin building is organized in two floors and comprises the offices of the main administration and security departments of the airport. The building is well maintained in general and does not have or space issues.

The cabin has 360 degrees view although consoled only covered the airfield. There are two consoles operating at all times with 2 active controllers. Each shift is composed of 6 controllers.

The visibility of the airfield is good including the apron and other movement areas. Area control is done from the central CAAP offices in Manila.



Control Tower



IV.5. TECHNICAL ASSESSMENT: Power plant

The power plant building is located between the terminal building and the control tower and administrative building.

It is a single level construction well maintained and hosts all the main MV and AGL regulators. The overall distribution system is considered adequate pending verification of the maximum load connected which was not provided at the time of the site visit.

There have been multiple incidents with the energy supply due to meteorological events in the island that led to the use of generators for 3 months on a row. Providing alternative sources of power to ensure a more consistent supply should be considered, especially as the airport grows and the energy demand becomes larger.



Generators

Generators



IV.5. TECHNICAL ASSESSMENT: Utilities network

The overall utilities network of the airport has been designed for its current size and not for any future expansion. The outside connections for the services experience limitations due to the lack of options island wide.

There is no information on consumption provided at the time of writing this report so a capacity -demand assessment cannot be completed.

As a summary:

- The water supply is provided by a private company, to 3 water tanks of 200 m3 each. Although the supply is reliable according to the maintenance team, there is an alternative supply from a water spring.
- There is a single electrical connection and a single transformer. Further redundancy shall be considered, especially after the recent events where supply was interrupted for at least 3 months. Further consideration to increase solar generation and other alternatives could be an option to reduce external dependency.
- There is no district cooling network at the airport.

- There are a series of open-air drainage channels to collect rainwater run offs. There are two large water ponds for water collection and treatment. An oil separator should be installed in the proximity of the airfield using the large pond located between the terminal and the cargo building.
- Sewage system is connected to the water treatment plan. Further details are provided in the Environmental Team

There is no fuel farm on the airport site. Trucks have an unpaved parked area near the access to the airport where they have a small deposit where the trucks change to the bowsers that fill the aircraft. Fuel is transported in bowsers from Cebu by boat to the area.



IV.5. TECHNICAL ASSESSMENT: Utilities network



Fuel parking area.



IV.5. TECHNICAL ASSESSMENT: Security assessment

Special consideration was given to the fulfillment of security procedures at the airport. In general, all main access gates are manned, and staff does ID / batch checks. There is no vehicle inspection or screening of any kind for staff. There is no CCTV or perimeter intrusion system in the airfield.

Secured areas in the landside are controlled by security guards but most of the ancillary buildings do not have access control systems and present a major security risk for airport systems.

There is a large network of CCTV cameras alongside the public areas covering most of the terminal building. Inside the terminal there are multiple gates providing access to airside that do not have access control system.

A security audit of the terminal and other buildings is required to further unify the security protocols and cover the areas currently not controlled.



Airside Gate at Terminal with simple lock and no access control system.



IV.5. TECHNICAL ASSESSMENT: Key findings for implementation on the project

- Since the airport facilities are relatively new, the overall status of all of them can be considered acceptable but further maintenance budget will be required in the upcoming years as the facilities age. This has to be properly budgeted by the proponent, especially regarding equipment replacement strategies.
- Similarly, joint repairs at apron and painting upgrades on the movement area are required.
- A security audit is required, to further strengthen the procedures and correct certain deficiencies identified in most of the buildings.
- Further consideration needs to be given to safety of operations due to the proximity and oversight of access road over the perimeter fence
- The overall electrical supply strategy must be reconsidered due to the recent long-lasting power failures. Alternative sources of power and secondary feed are strongly recommended as the current solution of using the generators for multiple months as the main source will not be sustainable as the airport traffic and demand growths. Even with the addition of new generators to add further capacity the fuel consumption and environmental issues created will create further problems.

- The terminal building has a reasonable size, but the internal distribution is not efficient. While there is a very generous check-in hall with ample seating that is not required as the general population cannot access the terminal, the boarding areas lack both seating and commercial outlets. The proponent shall present a proposal to further optimize the existing footprint prior to proposed any expansion. The addition of a new baggage belt must be considered.
- The baggage handling system must be made operational resolving the current manual handling. Equally all cargo operators shall be required to have their own screening facilities, or a joint screening facility must be installed in the cargo terminal to eliminate the transport and handling of cargo at passenger terminal.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Key risks and recommendations

Key E&S Risk	Recommendation
 Airport's Environmental Management System (EMS) has gaps with IFC PS1 requirements, notably: (a) limited implementation of E&S management plans, (b) no procedures to monitor and measure environmental performance, (c) lack of project specific Stakeholder Engagement Plan (SEP), Grievance Mechanism (GM) (d) no periodic reporting on E&S performance. Alignment of E&S assessment, Emergency Response and Preparedness Plan (EPRP) with PS1 couldn't be verified as the documentation was not available for review 	 Expand the existing EMS into IFC PS1 aligned ESMS to manage the E&S risks and impacts on ongoing basis. As part of the ESMS, concessionaire to prepare (a) focused E&S assessment to identify and assess E&S risks and impacts from O&M of existing facilities and terminal reconfiguration and enable the development and implementation of PS aligned management plans and (b) PS1 aligned SEP, GM and EPRP
 The existing workforce are below the benchmarks compared with airports of similar size. There is a cooling period of one year applicable for transfer of permanent staff to entities that are regulated, supervised or licensed by CAAP. The cooling period could restrict CAAP staff accepting the concessionaire offer of employment. CAAP intends to waive off the one-year cooling period for operational employees and consequently, the Concessionaire will provide an offer of employment to operational employees. 	 Concessionaire to offer employment to all CAAP operational employees and fire brigade staff. The offer shall be on terms and conditions no less favorable than those existing prior to transfer. For employees who are not offered employment and employees not consenting for transfer, CAAP to prepare a transfer plan in consultation with the workers.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Key risks and recommendations

Key E&S Risk	Recommendation
 Existing wastewater treatment plant (WWTP)'s chlorine dozing system is malfunctioning resulting in effluent load of discharges beyond regulatory limits. Contaminated Stormwater runoff is discharged without treatment and no monitoring prior to discharge which is a regulatory non-compliance 	 Concessionaire to retrofit and operate WWTP to meet the national standards and WBG EHS Guidelines for Airports (whichever is stringent); stormwater needs to be managed in accordance with WBG General EHS Guidelines including installation, maintaining of oil / water separator at all run-off collection areas. Undertake periodic monitoring of the effluent and stormwater discharges
 Gaps in the waste management practices include: (a) open burning of biohazardous waste (also a regulatory non-compliance) leading to significant health and safety risk (b) onsite storage of hazardous wastes since beginning of airport operations as there is no hazardous waste disposal solution 	 Concessionaire to develop and implement plans for disposal of stored hazardous waste. CAAP to immediately cease the burning of biohazardous waste and store the waste in a designated area with secondary containment and engage companies with legal permits for collection, treatment and disposal of biohazardous waste.
 Critical fire risks at cargo terminal due to non-functional fire detection and alarm systems. Gaps in Life and fire safety (LFS) provisions at terminal building were also observed 	 Concessionaire to undertake risk-based LFS review of the airport based on IFC PS requirements and implement time-bound LFS remedial actions. CAAP to address LFS risks of airport operations in the interim with temporary emergency measures - (a) Inspect the fire detection system (heat and smoke detectors) for cargo terminal and, if the system cannot be easily repaired, provide temporary detection & alarm devices (b) provide "fire-watch" (i.e. security service guards) and first responders at terminal and cargo buildings for rapid detection and response to a fire event.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Gaps in E&S assessment, Emergency Preparedness, Stakeholder engagement

An Environmental Management System (EMS) was developed for airport operations in 2022 and is in the process of obtaining ISO 14001 certification. EMS has gaps compared with IFC PS1 requirements and the implementation is limited. Notable gaps include:

- E&S policy does not define the commitment to comply with all applicable environmental laws and international standards that Philippines is a signatory to. Further, the policy statement doesn't cover objectives and commitments regarding environmental, labor and social performance.
- E&S risk assessment is limited to the regulatory Environmental Impact Assessment ('EIA') undertaken in 2011. As, the document was not available for review, alignment of the operational E&S management plans with IFC PSs could not be established. Scoping consultants noted that there is no screening of E&S risks and impacts and limited implementation of E&S management plans.
- E&S organizational structure defined in the EMS is yet to be established. Presently, E&S risk management function is dispersed across various departments.
- Various regulatory non-compliances were observed including breach of Environmental Compliance Certificate (ECC) conditions which presents a material risk to people and environment. Monitoring is limited to wastewater discharges.
- The airport has not developed a formal Stakeholder Engagement Plan (SEP) engagement consists of quarterly meetings with nearby communities and Barangays (local administration units), focusing on awareness campaigns on management of vegetation and stray animals.
- There is no project specific Grievance Mechanism (GM). Communities share their grievances to Barangay captains which are communicated to airport during the quarterly meetings. There are no grievance logs. Nevertheless, Barangay captains informed scoping consultants that communities have in the past expressed concerns around the airport's environmental and social performance (including concerns on noise exposure) which remain unaddressed.
- The Emergency Preparedness and Response Plan (EPRP) developed for airport operations was not available for review.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Gaps in E&S assessment, Emergency Preparedness, Stakeholder engagement

Recommended provisions to be included in the PPP agreement:

PPP contract to require compliance with IFC PS, national legislation, and relevant aspects of WBG EHS Guidelines and WBG EHS Guidelines for Airports.

- CAAP to obtain the required outstanding E&S permits and Concession Agreement to define the responsibility for fulfilling the liabilities imposed for delay in securing the relevant permits (as soon as possible and in any case as Condition Precedent (CP))
- Concessionaire to expand the existing EMS to a PS1 aligned Environmental Social Management System (ESMS). As part of the ESMS, undertake focused E&S assessment to identify and assess the environmental and social risks and impacts from operation and maintenance of existing facilities and terminal reconfiguration under first Capacity Augmentation and enable the development and subsequent implementation of PS aligned management plans. The focused E&S assessment to include at minimum: assessment of options for hazardous waste removal and disposal, site investigation for land and groundwater contamination, noise modeling for present and future scenarios (end of concession period) of air traffic movements in order to identify the area within DNL 60 dB (A) and map the buildings existing at the time of the exercise.
- For future developments (terminal expansion etc.) and for airport Master plan updates, concessionaire to undertake that associated E&S risks and impacts are assessed and mitigation measures are identified in accordance with national laws and IFC PS.
- Concessionaire to prepare and implement EPRP, SEP and GM aligned with IFC PS 1.


IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Labour and Working Conditions

- 332 worker are employed at the airport including: 45 Civil Aviation Authority of Philippines (CAAP) employees (including open ended and fixed term contract), 152 third party contracted workers (LSERV (outsourced labour agency / provider), several core airport functions are undertaken by LSERV employees include fire fighting, administrative support, facility cleaners, and maintenance roles) and 135 retainers. Staffing levels at the airport is below the benchmarks of similar airports in the region.
- Civil Aviation Authority Act requires cooling period of one year before transfer of permanent staff to entities that are regulated, supervised or licensed by CAAP. The cooling period could restrict CAAP staff accepting the concessionaire offer of employment. CAAP intends to waive off the one year cooling period for operational employees and consequently, it was agreed in the PTC's that Aboitz will provide an offer of employment to operational employees.
- Terms and conditions of permanent employment contract are in accordance with Labor regime applicable to CAAP employees (CAAP service regulations). A combination of CAAP regulations, internal memoranda, guidelines, protocols, and other procedural documents sets out the procedures to managing workers, which have gaps when compared with PS2 requirements. Notably, lack of provisions for: non-discrimination, transparency, and engagement in the context of transfers; for prevention of sexual harassment, gender-based violence, forced and child labor; and for managing and overseeing labor practices of contractors. Though there are various channels for employees to raise grievances, there is no grievance procedure developed including no system to manage and record grievances
- There is no policy on freedom of association. A union representing CAAP employees was approved by the civil service commission in January 2024. Negotiation of a collective bargaining agreement has not commenced.
- There is no limit on overtime hours under CAAP regulations, and it was indicated that significant overtime is recorded for technical staff.
- Job Order workers regularly face wage payment delays following renewal of their contracts (usually every 6 months) for up to two months.
- The airport does not currently have an approved Occupational Health and Safety (OHS) Policy or OHS management system in place. Ad hoc safety procedures are in place mostly relating to aviation safety.
- OHS risk assessments have not been completed for airport operations. There are no procedures on issuance of work permits, accidents and incident recording and investigation system, issuance of appropriate and adequate Personal Protective Equipment (PPEs). Scoping consultant identified OHS several practices not aligned with GIIP, including lack of PPE, employee exposure to hazardous waste, and weak H&S signage.
- Temporary accommodation (used by one migrant staff occasionally) is adjacent to chemical storage, in confined space and is not aligned with IFC's 'Workers' Accommodation: Processes and Standards A Guidance Note'.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Labour and Working Conditions

Recommended provisions to be included in the concession agreement

- Concessionaire to develop and maintain written human resources (HR) policies and procedures which are consistent with applicable labor law and PS2 requirements, including coverage of third party workers consistent with PS2. The policies and procedures should at minimum include terms of employment, employment non-discrimination, freedom of association, code of conducts to avoid gender-based violence (GBV), forced labor, and child labor, and process detailing how policies and procedures will be cascaded down to contractors employed on the project, including contractor monitoring
- Concessionaire to establish grievance mechanism through which workers, including third party workers, may raise workplace concerns. The grievance mechanism should be communicated to workers, including management, in a clear and understandable manner; allow for timely resolution of complaints; and be designed in such a way to ensure that anonymous complaints can be submitted and resolved.
- As part of the ESMS, concessionaire to develop Contractor/Subcontractor Management plan to manage ESHS planning and performance of contractors.
- Concessionaire to include contractual obligations for contractors to follow relevant PS 2 requirements
- Concessionaire to develop OHS policy in line with national law and PS2 requirements. The policy should be supported by OHS plans and procedures, including
 periodic risk assessments to identify relevant hazards and risks across different occupational categories. This should include provision of PPE, requirements for use of
 PPE and enforcement of PPE use; induction and ongoing safety training.
- Concessionaire to provide accommodation aligned with IFC's 'Workers' Accommodation: Processes and Standards A Guidance Note'.
- Concessionaire to make an offer of employment to all operational employees and fire brigade employees and at its discretion offer employment to all other workers.
 The offer of employment shall be at terms and conditions that are no less favorable terms than those prior to the date the offer is made and as per Legal
 Requirements.
- For the employees not consenting to their transfer to the Concessionaire and workers not offered employment by Concessionaire, CAAP to carry out an analysis of alternative employment opportunities within the public sector ("Alternative Employment Plan") that will be based on the principle of non-discrimination and will reflect the Grantor's consultation with workers, their organizations, and comply with applicable collective bargaining agreements. At all stages of the process, the Grantor will comply with all applicable Legal Requirements and contractual requirements related to notification of public authorities and provision of information to and consultation with workers and their organizations.
- CAAP to pay salaries and employment benefits of (a) transferring employees arising prior to the Existing Assets Handover Date and (b) Employees other than the Transferring Employees after the Existing Assets Handover Date, including any retirement and severance payments by virtue of the termination of their employment 110^w with CAAP.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Water Supply, wastewater treatment, waste management

- Water supply for non-potable use is through piped water from a private water supplier ~ 50km from the airport. Water treatment is undertaken within
 the airport and is aligned with Good International Industry Practice (GIIP), including an initial multimedia filtering system, softening process followed by
 chlorination. Nevertheless, monitoring of water quality is not undertaken which is a regulatory non-compliance.
- Drinking water supplied to the terminal is through bottled water, however the water quality test reports were not evidenced to scoping consultants.
- Airport is connected to an existing wastewater treatment Plant (WWTP). WWTP's chlorine dosing system has been malfunctional since 2023 resulting in
 exceedances of effluent load beyond regulatory requirements. WWTP discharges to constructed wetland and finally to coastal waters. Blue water is
 returned to origin.
- Wastewater discharge permit expired in December 2020 which is regulatory non-compliance.
- Stormwater runoff is collected from across the airside and landside and discharged through a soaking area for land infiltration. Stormwater from apron
 and material recovery facilities (MRF) is passed through oil-water separators. Stormwater from other airside facilities is not passed through oil-water
 separators which is not aligned with GIIP. No monitoring is undertaken prior to stormwater discharge which is a regulatory non-compliance. It couldn't
 be confirmed if the stormwater drainage capacity would withstand climate change impacts. Nevertheless, flooding has not been recorded since
 beginning of operations.
- The airport has developed waste management procedures that are aligned with GIIP. Waste is segregated and temporarily stored within the site's MRF, however the MRF is not included in the facilities permitted under clearance certificate. Several risks in the waste management practices were observed including: (a) open burning of biohazardous waste within airport boundary (not legally permitted) leading to significant health and safety risk (b) MRF is not provided with adequate hardstanding and minor staining on the ground was noted by Scoping Consultant (c) hazardous wastes stored in dedicated containers is not disposed since beginning of airport operations as there is no hazardous waste disposal solution in Bohol.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Water Supply, wastewater treatment, waste management

Recommended provisions to be included in the concession agreement

- Grantor to expand the clearance certificate to include the MRF.
- Concessionaire to develop plans for removing stored hazardous waste. This includes disposal of hazardous waste in the nearest available hazardous waste treatment facility if this exists, has a valid license, and it is operated as per national standards OR design an onsite treatment facility for hazardous waste to dispose hazardous waste accumulated within the airport in line with WBG EHS Guidelines for Waste Management. Concessionaire to engage companies with valid legal permits for collection, transportation, treatment and disposal of hazardous and non-hazardous waste and to obtain and verify the chain of custody of waste to monitor its effective transportation and disposal in line with national regulations
- Concessionaire to expand the existing SOP on waste management to a pollution prevention and control management plan and a waste management plan in compliance with PS3 requirements.
- Concessionaire to audit the design of the waste storage area and retrofit to align with GIIP requirements (including adequate ventilation, fire protection systems, hard paved surface, separate storage with labelling for hazardous waste).
- Concessionaire to retrofit and operate wastewater treatment plant to meet the national standards and WBG General EHS Guidelines (whichever is stringent) and undertake periodic monitoring of effluent discharge. The sludge generated from the wastewater treatment operation should be disposed in line with the national regulations.
- Concessionaire to maintain, where necessary upgrade, the stormwater drainage system considering the climate change scenario; stormwater needs to be
 managed in accordance with WBG General EHS Guidelines including installation, maintaining of oil / water separator at all run-off collection areas.

Recommendation: CAAP to immediately cease the burning of biohazardous waste and store the waste in a designated area with secondary containment and engage companies with legal permits for collection, treatment and disposal of biohazardous waste



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Air Traffic Noise Emissions

- Noise metric and threshold (DNL of 60 dB(A)) as defined in the bill introduced in Senate of Philippines (Senate Bill No. 465) is adopted for estimating the air traffic noise exposure risk.
- As part of the E&S scoping study, preliminary noise modelling was undertaken using AEDT to model noise exposure from current operations and from future traffic increases (till end of the concession).
- The noise contours were overlayed satellite images to estimate the number of structures affected by air traffic noise levels above the threshold.
- The total estimated number of structures (counted in satellite images and observed) with noise exposure beyond DNL 60 dB(A) is 216 structures in 2019⁺ and at the end of concession increases to ~ 700 structures (for traffic projection as per PTC) and ~ 900 structures (for traffic projection by technical consultant), assuming no more development occurs around the airport. Cost of insulation is estimated at 6 Mil USD increasing to 18 Mil USD (for traffic projection by technical consultant) by end of concession.

Recommended provisions to be included in Concession Agreement:

- Collaborate with airline operators to develop SOPs to implement measures for quieter aircraft to reduce noise impacts in line with ICAO Balanced approach. Develop noise contours at the start of concession for present and future scenarios (end of concession period) in order to identify the area within DNL 60 dB (A) and map the buildings existing at the time of the exercise in order to establish a cut-off.
- Undertake noise modelling every 5 years thereafter to develop "annual passive noise abatement program (ANP)" each year which identifies year wise impacted structures (established at the time of cut-off determined by baseline mapping) with exposure beyond DNL 60 dB (A). For the structures identified in the ANP, Concessionaire to provide a noise insulation package as per ICAO Balanced approach, Relevant Rules and Procedures including any future Legal Requirements.

Recommendation: At the time of renegotiating the concession agreement for capacity augmentation to 10.4 MMPA, CAAP to factor insultation requirement of ~ 900 structures costing ~ 26 Million USD.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Contaminated Land

- The outcome of the Phase 1 ASTM- type site assessment indicates there is a low-level risk of soil and groundwater contamination within the airport footprint. Potential Sources of contamination include:
 - Storage and use of oils and chemicals not aligned with GIIP (e.g. no secondary containment).
 - Burning of biohazardous waste.
 - Fire training, with kerosene and fire fighting foams over exposed ground.
 - Wastewater effluent with pollution load beyond regulatory limits discharged to surface waters (constructed wetland and coastal waters).
 - Undertreated stormwater effluent infiltrated to land.
- Potential sources of contamination at refuelling area (outside of airport boundary; leased and operated by third party) include:
 - Staining observed on ground where fuel tankers (used to refuel the aircraft) are parked
 - Aboveground jet fuel tank is located on a concrete bund of inadequate capacity
- As part of airport expansion, Technical consultant's proposal proposes construction of VIP terminal area in the refueling area. However, current project land boundaries doesn't include refueling area as part of concession.



Potential areas of contamination in airport operations areas



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Contaminated Land

Recommended provisions to be included in Concession Agreement

- As Condition Precedent (CP), undertake phase 2 site investigation (in accordance with ASTM E1903 19 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process) to determine the distribution and extent of contamination on site.
 Phase 2 site investigation of refueling areas to be undertaken prior to inclusion of the area within the airport boundary
- Based on the results of the Phase 2 assessment a site remediation plan to be prepared and implemented (site conceptual model to be prepared in accordance with ASTM E2081 00(2015) and remediation for ground water contamination to follow principles of ASTM E1943-98(2015)). As per the 'as-is, where-is' principle of the negotiated PTC, it is understood that the cost of implementation of remediation will be under concessionaire responsibility.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Life and Fire Safety (LFS)

- Fire Safety in the airport is managed by third party (LSERV) and the airport's Aircraft rescue and fire fighting (ARFF) services. ARFF services is aligned with ICAO requirements with the fire brigade staff numbers aligned with industry standards and NFPA 1010 and the staff having adequate certification and training.
- LFS risk-based analysis of airport facilities identified several hazard conditions :
 - Terminal Building reporting of frequent false alarms from the luggage unloading area on the ground floor possibly from dust accumulation on smoke detectors, limited evacuation plans, absence of service providers to maintain FM200 suppression systems provided in electronic control panel room
 - Cargo terminal Non-functional fire detection and alarm systems, inadequate exit signage and emergency lighting, lack of segregation of stored cargo.
 - No dedicated water supply to the Fire Hydrant system. Common Overhead water tank that is connected to piped private water supplier caters to requirement for entire airport operations including hydrant system. This constitute risk for uninterrupted supply and ability to meet the requirement of sufficient pressure. Supply was interrupted for three months in 2023 due to failure of the piped water system.
 - Fuel farms (operated by third party service providers and outside PPP scope) are provided with only fire extinguishers as fire suppression system. Adequacy of the testing, maintenance and certification of fire extinguishers couldn't be verified.



IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Life and Fire Safety (LFS)

Recommended provisions to be included in Concession Agreement

- Concessionaire to commission a qualified and accredited Fire Protection Engineer (FPE) to undertake risk-based Life and Fire Safety (LFS) review of
 the airport based on internationally accepted LFS code as per IFC PS requirements and implement time-bound LFS remedial actions as defined in
 the risk-based LFS review. Concessionaire to develop a L&FS master plan for any future master plan updates, terminal expansion, retrofits and any
 future construction in full compliance with local building codes, local fire department regulations, and internationally accepted LFS code as per IFC
 PS requirements. After completion of Works, FPE to certify that the relevant Works has been constructed in accordance with the LFS master plan,
 and where gaps are identified, develop a corrective action plan
- EPRP to be prepared by concessionaire to consider risks from activities linked to airport operations but outside the scope of concession.

Recommendation: LFS risks of airport operations needs to be addressed in the interim, at least with temporary emergency measures. It is recommended that CAAP undertakes immediate corrective actions: (a) Inspect the fire detection system (heat and smoke detectors) for cargo terminal and, where cannot be easily repaired, provide temporary detection & alarm devices (b) provide "fire-watch" (i.e. security service guards) and first responders at terminal and cargo buildings for rapid detection and response to a fire event.

IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Land Acquisition and Involuntary Resettlement

- Land acquisition for the airport occurred between 2012-2018, with private owners (~50 families) relocated to a new area. Resettlement documentation was not available for review during scoping.
- Scoping consultant's engagement with Barangay representatives indicated that compensation for land was calculated based on prices for agricultural land (i.e. not including structures), with relocated families provided alternate housing with security of tenure. They are required to pay a monthly amortisation charge to the developer for their new resettled properties. Water and electricity were not originally supplied, with houses now connected to electricity, but water remains an issue.
- A parcel plan provided by the technical consultants (Figure 1) suggests that land titles for some parcels have not been transferred to CAAP (in red). Details of any legal proceedings on these parcels is awaited from CAAP's legal team. It is also not known if all other land parcels in the airport perimeter are under CAAP ownership. Nevertheless, based on the Past-Resettlement Approach, the land acquisition process is considered completed.
- Based on the technical consultant's growth projections, expansion beyond AIC proposals may be needed, requiring land acquisition of ~30 Ha (marked as white boundary in Figure 2). The areas are not densely populated, but approx. 9 households (potentially formal and informal), a hotel resort, a Government office and 5 businesses (mainly shops), would require relocation. Legal team opines that based on PTCs, providing the additional 30 Ha land for airport development is not possible under the USP.





IV.6. ENVIRONMENTAL AND SOCIAL RISKS

Land Acquisition and Involuntary Resettlement

Recommended provisions to be included in Concession Agreement

 In case of any land acquisition and involuntary resettlement during the concession period, concessionaire to develop a PS5 compliant Resettlement Action Plan (RAP) to manage risks and impacts This is to include a Livelihood Restoration Plan (LRP) to identify impacted land users, assess risks and impacts and develop appropriate mitigation measures to improve or at least restore impacted livelihoods.

Recommendation: Considering that lack of access to water for the resettled households is an ongoing impact, it is recommended that CAAP or Concessionaire manage ongoing impacts from historic resettlement through a Community Investment Program including access to water for displaced households (provision to be included in CA after discussion with CAAP on responsibility allocation).





1. MARKET POTENTIAL

1.1 Development Plans

- Central Visayas aims to be known nationally and internationally as a premier tourism destination, logistics hub, and center of trade & industry, science & technology innovation.
- Bohol is taking-off to become the region's prime eco-cultural tourist destination and agro-industrial center. Investment areas in the identified Special Economic Zone are focused on eco-tourism, light industries and agro-industrial development.
- The old Tagbilaran city airport is planned out for an economic zone type of development.
- In 2024 two major investors are opening up in Bohol, the Shoemart Supermalls, the country's largest retail mall (in the city) and the JW Marriot Panglao Resort and Spa (Marriot remains the world's largest hotel chain in terms of the number of rooms globally) in Panglao.
- A Korean investor is looking for a suitable green area for a golf course development, the first one in Bohol.







1.2 Tourism plan – Bohol

1. MARKET POTENTIAL

Vision as per Provincial Development Plan

An eco-cultural tourist destination, globally competitive in its sufficiency to the standards of the industry, proud of its distinct and unique Boholano heritage; upholding environmental and cultural sustainability, economic value but giving utmost importance to the well-being of its people, security and client satisfaction.

Potential to be used

- Strategic location / accessibility
- Culture & history
- Nature
- Quality of its labor force

Statement

• Bohol positioned as one of the key sun-beach-island destinations for domestic and international tourism.



1. MARKET POTENTIAL

6

5

1.3 Key Drivers for TAG Traffic

for tourism

(OFW)



Domestic incoming tourism

• Increase frequency and add new direct flights to top Philippines cities, as Iloilo, Bacolod, Laguindingan, Tacloban, Tuguegarao, Bicol, Zamboanga, etc.

International incoming tourism

• Direct flights to target markets as China, Japan, Taiwan, South Korea

potential, it is adding value and brings

additional revenues.

2

3

4





V. INVESTMENT OUTLOOK 2. STRATEGIC POTENTIAL

2.1 Potential Vision

"Bohol-Panglao Airport positioned not only as main entry airport to Bohol Province but also important final leisure destination for international and domestic tourists (incoming & outgoing)."



2. STRATEGIC POTENTIAL

2.2 Aviation Strategy

• Focusing on

- 1. international incoming tourism in the TAG key target markets
- 2. Filipino diaspora in the TAG key target markets
- 3. the interest in MICE activities in Bohol
- 4. Cruise & Fly potential if Bohol becomes a boarding destination
- The Filipino Diaspora is a population of about 12 million people spread all over the World. The top five countries / regions are as follows (in million):
 - USA 4.0
 - Canada 1.0
 - Saudi Arabia 0.9
 - UAE 0.9
 - Europe 0.8
- There are about 70 MICE events with up to 50.000 participants in the Philippines (50 in Manila, 9 in Cebu, rest in different cities, but none in Bohol) although the leisure potential may be attractive for MICE events.
- Implementing Bohol as boarding destination for Cruise & Fly system brings additional passenger flow to the airport.



2. STRATEGIC POTENTIAL

2.3 Selected Target Markets and Destinations

Domestic Traffic

For the domestic traffic the following potential destinations / regions can be defined (the core regions with the big hubs are excluded as this traffic exists already):

Bicol region Eastern Visayas Western Visayas Northern Mindanao Cagayan Valley Zamboanga Peninsula

These regions are of interest for future point-to-point traffic between TAG and Intl. and Dom 1 airports.

Statement

By 2040, position TAG as an international gateway, leading agricultural hub, and major industrial, tourism, and trade center in the region.

TAG can also be the regional hub and central airport on Bohol island.



International Traffic

- For the international traffic, the following potential destinations / regions / countries can be defined:
 - 1. Korea with Seoul and Busan already existing direct flights
 - 2. China with Hongkong, Beijing, Guangzhou and Nanjing as target destinations
 - 3. Japan with Tokio and Osaka as target destinations
 - 4. Taiwan with Taipei as target destination
- There are already many visitors from these regions visiting Philippines including Bohol Province in the last years and the volume is growing. Re-introduction of direct flights to Busan and Seoul in 2023 boosted the tourism demand from South Korea.
- The potential extension of the runway for Cat E aircraft and potential long-haul traffic to Middle East and USA is considered as an upside.

3. TRAFFIC POTENTIAL

3.1. Unconstrained Traffic Forecast – PAX

- The illustration on the right depicts the projected unconstrained growth of all PAX segments at TAG Airport.
- The illustration combines a Bottom-Up approach (2027-2031) with a Top-Down approach (2032-2058) for forecasting International and Domestic PAX growth.
- The Add-on PAX segment is forecasted based on a market survey and the assumptions outlined above.





3. TRAFFIC POTENTIAL

3.2. Unconstrained Traffic Forecast - ATM

- The forecast for Air Traffic Movements (ATM) is a derived value that correlates the forecasted PAX numbers for each traffic segment with the average aircraft load factor for that segment.
- The average aircraft load factor is determined by the typical aircraft type used for operations in each segment.
- When forecasting ATM, both historical data and relevant assumptions were carefully considered.

90 0 00 80 000 70 000 60 000 50 000 40 000 30 000 20 000 10 000

2036 2038 2040

General Aviation ATM

2044 2046 2048 2048 2052 2054

Military ATM

2056 2058

2042

2028

International ATM

2030 2032 2034

2010 2012 2014 2016 2018 2020 2022 2024 2026

Domestic ATM

Total ATM Forecast



3. TRAFFIC POTENTIAL

3.3. Unconstrained Traffic Forecast – Total Cargo

- Historical cargo volumes (2010-2022) show a fluctuating trend.
- No correlation was found between cargo development and the Philippine GDP.
- The forecast is based on the historical average of cargo per ATM.
- The starting point in 2024 is 0.366 tons per ATM, with an expected growth to 0.434 tons per ATM by 2058.







3. TRAFFIC POTENTIAL

3.4. Unconstrained Traffic Forecast – PAX & ATM Peak Hours (Total)

- There are a lot of different definitions of the peak hour at the airport, i.e. when the majority of passengers receive an adequate service level and only an insignificant part can face certain inconveniences.
- The calculation of PAX peak hour is of paramount importance for further calculation of infrastructure parameters, as it is inexpedient to use the maximum peak hour as an indicator, which can lead to economically unacceptable and wasteful investments.
- It is necessary to determine such level which will allow to provide such airport capacity, when the provided level of services is on the acceptable level.
- **Typical peak hour passenger (TPHP)** is applied by Federal Aviation Administration and represents the value equal to a multiplication of certain coefficient (depending on air traffic) on the total amount of annual passenger traffic.

PAX Peak Hours	2025	2030	2035	2040	2050	2058
Share of PAX Peak month	11,20%	11,00%	11,00%	11,00%	11,00%	11,00%
Peak Month PAX	236 286	411 163	556 199	710 554	1 062 887	1 406 351
Average day PAX in Peak month	7 622	13 263	17 942	22 921	34 287	45 366
PAX Peak Day coefficient	1,26	1,26	1,25	1,23	1,21	1,20
Peak Day PAX in Peak month	9 604	16 712	22 427	28 193	41 487	54 439
Peak Hour coefficient	0,0917	0,0917	0,0917	0,0917	0,0917	0,0917
Peak Hour PAX (2-way)	881	1 533	2 058	2 587	3 806	4 994
Share of one way PAX	65,00%	65,00%	65,00%	65,00%	65,00%	65,00%
Total Peak Hour PAX (1-way)	573	997	1 337	1 681	2 474	3 246

ATM Peak Hours	2025	2030	2035	2040	2050	2058
Share of ATM Peak month	10,50%	10,50%	10,40%	10,40%	10,30%	10,30%
Peak Month ATM	1 393	2 423	3 204	4 056	5 919	7 759
Average day ATM in Peak month	45	78	103	131	191	250
ATM Peak Day coefficient	1,20	1,20	1,20	1,20	1,20	1,20
Peak Day ATM in Peak month	54	94	124	157	229	300
Peak Hour coefficient	0,0917	0,0917	0,0917	0,0917	0,0917	0,0917
Peak Hour ATM (2-way)	5	9	12	15	22	28
Share of one way ATM	50,00%	50,00%	50,00%	50,00%	50,00%	50,00%
Peak Hour ATM (1-way)	3	5	6	8	11	14

• As no historical data was provided, the calculation is based on Top-Down approach identifying the Busiest Month, Average Day, Busy Day and then Peak Hour.

3. TRAFFIC POTENTIAL

3.5. Secondary Parameters – Meeters & Greeters

- Three Passenger Segments Identified:
 - Oversees Workers (OWS): Estimated to represent 0.25% of total passengers in 2023.
 - Travelers Visiting Friends & Relatives (VFR): Assumed to constitute 65% of total passengers in 2023.
 - Other Travelers.

• Forecast Assumptions:

- OWS Share: Expected to increase from 0.25% in 2023 to 0.28% by 2058. The Meeters & Greeters (M&G) per passenger will decrease from 5.0 (2023) to 2.9 (2058).
- VFR Share: Projected to decrease from 65% in 2023 to 61% by 2058. The M&G per passenger will decline from 0.50 (2023) to 0.27 (2058).
- Other Travelers: Starting at 34.75% in 2023, this segment is anticipated to grow to 38.78% by 2058. The M&G per passenger will reduce from 0.20 (2023) to 0.15 (2058).
- **Illustration** displays the projected changes and trends for each segment.





4. COMMERCIAL POTENTIAL

4.1. SBU Terminal Retailing

4.1.1 Landside Passenger Terminal

- The landside of the passenger terminal has potentially the following target groups to serve:
 - Departing passengers
 - Greeters
 - Employees working on airport site
 - Arriving passengers
 - Meters
- For these target groups the following initiatives shall be undertaken generating additional nonaeronautical income:
 - The dedicated commercial space shall be allocated by 50% for F&B mainly cafeterias and some Philippine restaurants and take away outlets. In the existing terminal shall be after Phase 1 an area reserved for meters and well-wishers including the F&B outlets with seating area.
 - Approximately 20% shall be reserved for shops covering the assortment for travel goods, souvenirs, flowers. Additionally, after Phase 1 there should be also implemented a supermarket of about 400 sqm with 75% food and 25% non-food products.
 - 90% of the outlets will be domestic brands and only 10% international brands.
 - The remaining 30% of the commercial space in this area will be used for offices, car rental kiosks, tourism & hotel kiosks, ATMs, etc. After 2030 there shall be also a bank branch mainly for the salary accounts of the employees working on airport site
- Increase the landside commercial space with the extensions of the passenger terminal from 234 sqm in the existing terminal up to 1.300 sqm with the first terminal extension.







4. COMMERCIAL POTENTIAL

4.1.2 Airside Passenger Terminal

- In this area the main target groups are domestic and international travellers.
- Consequently, in this area the following long targets for space allocation are as follows:
 - Shops 40%
 - F&B outlets 15%
 - DFS (arrival + departure) 35%
 - Lounges 10%
- While the shops will be about 70% international brands and 30% domestic brands, the F&B outlets will have 50% domestic and 50% international brands.
- The F&B outlets will consist of cafeterias, ice cream and juice bar, grab and go, Tapas bar, Philippine restaurant, etc.
- Increase the airside commercial space with the extensions of the passenger terminal from 998 sqm in the existing terminal up to 5.700 sqm with the first terminal extension.





4. COMMERCIAL POTENTIAL

4.2. Landside Development in front of the passenger terminal

Unfortunately, there is not a lot of space available in front of the passenger terminal and therefore only limited landside commercial activities can be envisaged:

- Car Parking
- Solar Park: 6.300 21.300 sqm from 2031; located above parking lots
- Supermarket in the passenger terminal but with the entry only from outside the passenger terminal
- Hotel
- Hi-tech center for IT stat-ups





5. TECHNICAL DEVELOPMENT CONCEPT

The methodology for the calculation of the required capacity of airport facilities draws on Annex 5: *Minimum Performance Specifications and Standards for Operation and Maintenance of Project Facilities* to the CA.

Terminal Development

The terminal concept shall be developed in accordance with planning guidelines set out in the IATA Airport Development Reference Manual 12th Edition. The applied Level of Service target is Optimum providing sufficient space to accommodate necessary functions in a comfortable environment.

As such, all space, queuing time and seating guidelines applied in the calculation of the required capacity of passenger processing elements are to be within the Optimum range

Master Plan Development Concept

The capacity of the initial master plan shall be based on benchmarks stemming from experience on airport projects and knowledge of industry standards. However, it is important to note that said benchmarks are indicative and appropriate solely for high level planning. The design of each airport facility will require a detailed assessment of the capacity demand and stakeholder requirements. Furthermore, it is imperative that the master plan be updated periodically throughout the concession period as set out in the CA to reevaluate the validity of set benchmarks.

Airside Development

The required capacity of the apron aircraft stands is calculated based on the peak hour movements derived from the traffic forecast. The criteria factored into the calculation include the average gate occupancy time, peak hour movements, landing ratio, aircraft code ratios and add-on for long term positions.

The required runway length is dictated by technical requirements of the design aircraft as well as the impact of local conditions including the reference temperature, slope and elevation.

The dimensioning and separation distances of airside movement areas shall comply with ICAO guidelines.



5. TECHNICAL DEVELOPMENT CONCEPT: CAPACITY ASSESSMENT

Terminal capacity

The following table summarizes the results of the capacity calculation of passenger processing facilities performed in accordance with IATA ADRM commensurate with LoS Optimum. The capacity is driven by the domestic and international passenger and movement peaks derived from the traffic forecast.

The concept foresees three development phases within the concession period: Phase 1 [2026-2035] Phase 2 [2036-2045] Phase 3 [2046-2054]

Each column represents the end capacity for the respective phase. The surplus slope demonstrates that the provided design capacity either satisfies or exceeds the calculated demand.

The table lists gross processing areas.

SUMMARY - TERMINAL Design year/peak hour/mppa			PHASE 1 2035/1251/4.7			PHASE 2 2045/1936/7.5			PHASE 3			
									2	2054 /2644/10.4		
		existing	calculated	layout	surplus	calculated	layout	surplus	calculated	layout	surplus	
Departure hall	m ²	750	813	2500	1687	1259	2500	1241	1719	2500	781	
Self service kiosks - counters	units	0	9	10	1	17	20	3	27	30	3	
Check-in/Bag drop - counters	units	20	32	40	8	50	50	0	70	70	0	
Check-in/Bag drop - queuing	m ²	270	399	540	141	542	650	108	667	950	283	
Boarding pass control	units	0	3	6	3	4	6	2	5	6	1	
Security screening - lanes	units	4	7	8	1	11	12	1	11	12	1	
Security screening - queuing	m ²	100	210	300	90	330	450	120	440	450	10	
Emigration - counters (trad.)	units	6	3	10	7	5	10	5	6	10	4	
Emigration - queuing (trad.)	m ²	60	40	100	60	67	100	33	80	100	20	
Emigration - counters (auto.)	units	0	3	5	2	4	5	1	5	5	0	
Emigration - queuing (auto.)	m ²	0	30	50	20	40	50	10	50	50	0	
Gate area - domestic	m ²	1240	1532	2750	1218	2378	2750	372	3264	3400	136	
Gate area - international	m ²	620	1034	2050	1016	1504	2050	546	2031	2050	19	
Gate area - total	m ²	1860	2489	4800	2311	3852	4800	948	5261	5450	189	
Immigration - counters (trad.)	units	8	5	12	7	7	12	5	8	12	4	
Immigration - queuing (trad.)	m ²	130	50	150	100	70	150	80	80	150	70	
Immigration - counters (auto.)	units	0	2	5	3	3	5	2	5	5	0	
Immigration - queuing (auto.)	m ²	0	20	50	30	30	50	20	50	50	0	
Baggage reclaim belts - NB	units	2	3	4	1	4	4	0	6	6	0	
Baggage reclaim belts - WB	units	0	0	0	0	0	0	0	0	0	0	
Arrival hall	m ²	0	271	1100	829	419	1100	681	573	1500	927	



5. TECHNICAL DEVELOPMENT CONCEPT: CAPACITY ASSESSMENT

Master plan capacity

The following table summarizes the results of the capacity calculation of airport facilities performed in accordance with the industry benchmarks. The capacity is driven by the annual passenger volumes, cargo tonnage and aircraft fleet derived from the traffic forecast presented.

Each column represents the end capacity for the respective phase. The surplus slope demonstrates that the provided capacity either satisfies or exceeds the calculated demand. The listed building areas are reflected in the master plan layouts later in this report.

The table lists gross floor areas.

SUMMARY - MASTER PLAN Design year/peak hour/mppa		PHASE 1		PHASE 2			PHASE 3					
			2035 /1251/4.7		2045 /1936/7.5			2054 /2644/10.4				
		existing	calculated	layout	surplus	calculated	layout	surplus	calculated	layout	surplus	
PAX Terminal	m ²	14000	28383	47000	18617	45004	53000	7996	62380	58500	-3880	
VIP Terminal	m ²	n.a.	710	1200	490	1125	1200	75	1560	2000	440	
Cargo Facilities	m ²	700	2294	2300	6	3549	3600	51	4807	4850	43	
GSE Equipment Staging	m ²	n.a.	3311	3500	189	5251	5300	49	7278	7300	22	
GSE Station	m ²	n.a.	3311	3500	189	5251	5600	349	7278	7300	22	
Airport Maintenance Staging	m ²	n.a.	1183	1200	17	1875	1900	25	2599	2600	1	
Airport Maintenance Station	m ²	n.a.	1892	2200	308	3000	3550	550	4159	4200	41	
ARFF	m ²	1500	2000	2000	0	2000	2000	0	2000	2000	0	
Airport Administration	m ²	1350	2365	2850	485	3750	5250	1500	5198	5250	52	
Waste Water Treatment Facility	m ²	n.a.	284	300	16	450	500	50	624	700	76	
Powerhouse Building	m ²	1000	624	1000	376	990	1000	10	1372	1400	28	
Solid Waste Treatment Building	m ²	n.a.	568	600	32	900	950	50	1248	1300	52	
Parking - PAX and Employee	m ²	11500	26017	26050	33	41254	42000	746	57182	58000	818	
Parking - Taxi Buffer / Shuttle	m ²	n.a.	1900	1900	0	3020	3200	180	4160	4200	40	
Parking - Rental Car	m ²	n.a.	3252	3300	48	5157	5200	43	7148	7200	52	
Bus Terminal	m ²	n.a.	350	350	0	700	700	0	875	900	25	
Curb Side - Departure	m	90	173	180	7	268	270	2	366	560	194	
Curb Side - Arrival	m	90	173	180	7	268	270	2	366	560	194	



5. TECHNICAL DEVELOPMENT CONCEPT: CAPACITY ASSESSMENT

Airside capacity

Runway length calculation

The required runway length is dictated by technical requirements of the design aircraft as well as the impact of local conditions including the reference temperature, slope and elevation. Based on the flight distances at ISA conditions were derived from schedule for the years 2014-2023, the prevalent aircraft at Bohol Airport include Airbus A320 in the lead, with Airbus A321 trailing behind. The tables below summarize the aerodrome conditions followed by the results of the runway length calculation.

The presented aircraft weight variants correspond to the aircraft weights of the fleet of airlines operating at TAG according to received data. The take-off manufacturer aircraft characteristics brochures. The results reveal that the 2500 m long runway equipped with a 150 m long clearway can accommodate the prevalent A320 as well as the A321-neo without inhibitions, whereas some weight limitations apply to the A321-200.*

The following task is to determine the take-off weight limitations of the current runway and assess the payload/range demands to arrive at a strategy for the timing of a potential runway extension.

Future Code-E operations beyond the concession period: For reference an Airbus A330 (Cebu Pacific fleet) was included in the calculations to study the future introduction of Code E traffic. The introduction of A330 traffic would require a runway extension to a total length of 3500 m. No Code E operations are considered in the traffic forecast of this benchmark report.

Runway designation	03/21
Runway dimensions	2500x45 m + Shoulders
Clearway length	150 m
Ref. temperature	34 °C
Elevation	43 FT [13.1 m]
Slope	0.099% uphill towards THR 21

Measure	A320-200	A321-neo	A321-200
MTOW	77000 kg	93500 kg	89000 kg
Take-off at ISA	2000 m	2150 m	2300 m
Corrected take-off	2413 m	2594 m	2775 m
RWY length	2413 m	2594 m	2775 m*

5. TECHNICAL DEVELOPMENT CONCEPT: CAPACITY ASSESSMENT

Airside capacity

Payload/range considerations

In order to determine the necessity of a runway runway in relation to the forecasted load factors and destinations must be assessed. Applying the runway calculation methodology in

reverse, a 2500 runway length in local conditions implies a 2050 m take-off length at ISA allowing for the below take-off weight of the aircraft currently operating at TAG for which constraints have been identified on the previous page.

The next step in the analysis is to consider this weight As such, taking the 89,000 kg weight variant into limitation in terms of payload/range demands.

Measure	A321-200
MTOW	89000 kg
RWY length	2500 m
Take-off at ISA	2050 m
тоw	87000 kg

The following chart for an A321-200 shows that limitations to payload begin at a range of ca. 3800 km in the concession period, the potential extension of (red vertical line), that is when the combined weight of the runway for Code E aircraft and potential long-haul extension, the payload/range allowance of the current the aircraft, maximum payload and needed fuel reach traffic to Middle East and USA would be considered the maximum take-off weight of the aircraft – 89 000 kg for this weight variant.

> The forecasted international destinations including Seoul, Busan, Hongkong, Beijing, Guangzhou, Nanjing, Tokyo, Osaka and Taipei are within a range of 3500 km, hence below the payload/range tipping point indicated by the red vertical line.

> consideration, an A321-200 with a take-off weight of 87,000 kg carrying the same amount of fuel would incur a 9% payload reduction from 23 t to 21 t. Furthermore, considering the forecasted load of max. 162 pax per movement out of 185/220 possible (depending on interior class arrangement) and the forecasted cargo load of approx. 0,5 t, the weight deficit should be acceptable within the concession period.

While the traffic forecast considers Code C traffic only as an upside in the long run. The evolution of the deciding factors including pax/cargo load and range requirements as well as airline procedures will ultimately determine the timing of a runway extension.







5. TECHNICAL DEVELOPMENT CONCEPT: CAPACITY ASSESSMENT

Airside capacity

Apron capacity

The required capacity of the apron aircraft stands is calculated based on the peak hour movements derived from the traffic forecast. The criteria factored into the calculation include: Average gate occupancy time Peak hour movements Landing ratio Aircraft code ratios Add-on for long term positions The following table illustrates the results of the apron capacity calculation per phase throughout the concession period. An add-on of 20% for long term positions was applied.

Measure	2035	2045	2054
Gate occupancy time [min]	60	60	60
Peak hour movements	11	17	24
Landing ratio	70%	65%	60%
Aircraft code ratios			
Code C	100%	100%	100%
Code E	0%	0%	0%
Calculated apron stands	8	12	15
Add-on for long term stands	20%	20%	20%
Total apron stands	10	15	18



5. TECHNICAL DEVELOPMENT CONCEPT: Airport property



Land purchase areas:

1. 220.000 sqm

2. 63.500 sqm

Legend





5. TECHNICAL DEVELOPMENT CONCEPT: PHASING APPROACH





5. TECHNICAL DEVELOPMENT CONCEPT: DEVELOPMENT POTENTIAL





5. TECHNICAL DEVELOPMENT CONCEPT:

ULTIMATE VISION INDICATES THE DEVELOPMENT POTENTIAL



- 4. ATC / Administration
- 5. ARFF
- 6. Water Tank / Pump House


5. TECHNICAL DEVELOPMENT CONCEPT:

ULTIMATE VISION INDICATES THE DEVELOPMENT POTENTIAL



- 3. Powerhouse
- 4. ATC / Administration
- 5. ARFF
- 6. Water Tank / Pump House

- 10. Airport Maintenance Station
- 11. GSE Station

9. Airport Administration



5. TECHNICAL DEVELOPMENT CONCEPT:

ULTIMATE VISION INDICATES THE DEVELOPMENT POTENTIAL



- 1. PAX Terminal
- 2. Cargo
- 3. Powerhouse
- 4. ATC / Administration
- 5. ARFF
- 6. Water Tank / Pump House

- 7. Sewage Treatment Plant
- 8. VIP/GA Terminal
- 9. Airport Administration
- 10. Airport Maintenance Station
- 11. GSE Station



5. TECHNICAL DEVELOPMENT CONCEPT:

ULTIMATE VISION INDICATES THE DEVELOPMENT POTENTIAL



- 2. Cargo
- 3. Powerhouse
- 4. ATC / Administration
- ARFF 5.
- 6. Water Tank / Pump House

- 8. VIP/GA Terminal
- 9. Airport Administration
- 10. Airport Maintenance Station
- 11. GSE Station



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Existing – Level 0







- 1. Entrance security
- 2. Check-in
- 3. Baggage sorting
- 4. Gates international remote
- 5. Gates domestic remote
- 6. Immigration

- 7. Baggage reclaim International
- 8. Baggage reclaim domestic
- 9. Duty Free Shop arrival

Design capacity	Aircraft positions	
1.8	7	
MAP	Code-C	
Passenger terminal	Check-in	
14.000	20	
sqm	counters	
Security screening	Baggage reclaim	
4	2	
lanes	belts	



- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Existing – Level 1



Legend

- 1. Gates international contact
- 2. Gates domestic contact

Design capacity	Aircraft positions
1.8	7
MAP	Code-C
Passenger terminal	Check-in
14.000	20
sqm	counters
Security screening	Baggage reclaim
4	2
Ianes	belts

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 1 – Level 0



- 1. Entrance security
- 2. Check-in
- Baggage sorting
 Gates international remote
- 5. Gates domestic remote
- 6. Immigration

- 7. Baggage reclaim International
- 8. Baggage reclaim domestic
- 9. Duty Free Shop arrival
- 10. Arrival hall

Design capacity 4.7 MAP	Aircraft positions 10 Code-C
Passenger terminal 47.000 sqm	Check-in 40 counters
Security screening 8 Ianes	Baggage reclaim 4 belts

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 1 – Level 1



Legend

- 1. Security screening
- 2. Emigration
- 3. Duty Free Shop departure
- 4. Gates international contact
- 5. Gates domestic contact

Design capacity	Aircraft positions
4.7	10
MAP	Code-C
Passenger terminal	Check-in
47.000	40
sqm	counters
Security screening 8 lanes	Baggage reclaim 4 belts

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 2 – Level 0



Design capacity	Aircraft positions
7.5	15
MAP	Code-C
Passenger terminal	Check-in
53.000	50
sqm	counters
Security screening	Baggage reclaim
12	4
lanes	belts

Legend

- 1. Entrance security
- 2. Check-in
- 3. Baggage sorting
- 4. Gates international remote
- 5. Gates domestic remote
- 6. Immigration

- 7. Baggage reclaim International
- 8. Baggage reclaim domestic
- 9. Duty Free Shop arrival
- 10. Arrival hall

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 2 – Level 1



Legend

- 1. Security screening
- 2. Emigration
- 3. Duty Free Shop departure
- 4. Gates international contact
- 5. Gates domestic contact



- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 3 – Level 0



Design capacity	Aircraft positions
10.4	18
MAP	Code-C
Passenger terminal	Check-in
58.500	70
sqm	counters
Security screening	Baggage reclaim
12	6
lanes	belts

- 1. Entrance security
- 2. Check-in
- 3. Baggage sorting
- 4. Gates international remote
- 5. Gates domestic remote
- 6. Immigration

- 7. Baggage reclaim International
- 8. Baggage reclaim domestic
- 9. Duty Free Shop arrival
- 10. Arrival hall

- Legend
- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phase 3 – Level 1



Legend

- 1. Security screening
- 2. Emigration
- 3. Duty Free Shop departure
- 4. Gates international contact
- 5. Gates domestic contact

Design capacity Aircraft positions 18 10.4MAP Code-C **Passenger terminal** Check-in 58.500 70 counters sqm Security screening **Baggage reclaim** 12 6 lanes belts

- Passenger circulation area
- Processing area (queuing/gate)
- Secondary area (staff, technics)
- Processors
- Commercial landside
- Commercial airside
- Commercial Duty Free Shop



5. TECHNICAL DEVELOPMENT CONCEPT: TERMINAL DEVELOPMENT CONSIDERATIONS

Phasing overview







5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY

CAPEX / REPEX overview



V. INVESTMENT OUTLOOK 5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY



Methodology

The capital expenditure plan contains all development measures foreseen in the presented master plan. The total sum of envisaged investments, distributed over time, is depicted for the main groups of airport assets.

The following conditions and assumptions are incorporated in the capital expenditure programme:

- Where available, locally sourced unit rates have been applied
- The capital investment programme is exclusive of value added tax costs, expropriation costs and other financial effects
- The capital expenditure is broken down in two sections: direct costs and indirect costs. Direct costs reflect the costs related to the construction and realization of the asset itself while indirect costs reflect the costs for the

engineering, design and overall management of the project as well as insurances, contingencies, supporting services, permit acquisition etc. The indirect costs are calculated as a percentage of the direct construction costs in the cost estimate and estimated at 25%

• All values shown are real values. Nominal values are shown in the Business Plan only

Expansion / CAPEX

The expansion investments are spread over three main development phases. The share per phase is depicted in the following pie chart:



Maintenance / REPEX

The REPEX consist of the following maintenance categories:

- Rehabilitation of movement areas (runway, taxiway system and aprons)
- Reconfiguration of passenger terminal areas
- Capital Maintenance of all other infrastructure based on an estimate of the CAPEX investments in relation to the REPEX investments

Phase 1 Phase 2 Phase 3



5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY

Expenditure Timeline



Capex Repex



5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY

Expenditure Timeline



Phasing

V. INVESTMENT OUTLOOK

5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY

PHASE 2 [REPEX] [TOTAL] [CAPEX] [TOTAL] PHASE 1 [CAPEX] [REPEX] Capital Maintenance 459 386 516 459 386 516 0 397 723 896 **Capital Maintenance** 0 397 723 896 Aircraft Maneuvering Areas 1 544 252 625 2 129 299 875 3 673 552 500 Aircraft Maneuvering Areas 521 553 750 521 553 750 0 Land Purchase 0 0 0 641 737 875 Land Purchase 0 641 737 875 1 214 804 506 Passenger Terminal 1 768 747 500 2 983 552 006 2 216 036 531 12 237 427 281 Passenger Terminal 10 021 390 750 Other Buildings 494 342 250 0 494 342 250 612 636 688 **Other Buildings** 612 636 688 0 297 436 813 Infrastructure Facilities 0 297 436 813 282 319 313 Infrastructure Facilities 282 319 313 0 **Transportation Facilities** 178 159 738 0 178 159 738 273 399 988 273 399 988 **Transportation Facilities** 0 Landside Facilities 0 0 0 Landside Facilities 0 0 Λ Demolition Ω 0 0 Demolition 0 0 Λ 292 674 800 Vehicles and appliances 0 292 674 800 345 283 700 Vehicles and appliances 345 283 700 0 PHASE 2 [2035-2044] 4,575,613,725 3,803,490,897 8,379,104,622 12,698,322,063 2,613,760,428 15,312,082,490 PHASE 1 [2025-2034]





Investment in PHP



Investment in PHP

162

V. INVESTMENT OUTLOOK

5. TECHNICAL DEVELOPMENT CONCEPT: CAPEX METHODOLOGY

Phasing

Investment in PHP

PHASE 3	[CAPEX]	[REPEX]	[TOTAL]
Capital Maintenance	0	521 665 762	521 665 762
Aircraft Maneuvering Areas	151 930 875	205 598 000	357 528 875
Land Purchase	0	0	0
Passenger Terminal	1 736 244 875	1 724 131 978	3 460 376 853
Other Buildings	234 510 219	0	234 510 219
Infrastructure Facilities	324 648 313	0	324 648 313
Transportation Facilities	153 215 863	0	153 215 863
Landside Facilities	0	0	0
Demolition	0	0	0
Vehicles and appliances	598 048 300	0	598 048 300
PHASE 3 [2045-2054]	3,198,598,444	2,451,395,740	5,649,994,184



TOTAL CAPEX / REPEX	[CAPEX]	[REPEX]
Capital Maintenance	0	1 378 776 174
Aircraft Maneuvering Areas	2 217 737 250	2 334 897 875
Land Purchase	641 737 875	0
Passenger Terminal	13 526 383 125	5 154 973 016
Other Buildings	1 341 489 156	0
Infrastructure Facilities	904 404 438	0
Transportation Facilities	604 775 588	0
Landside Facilities	0	0
Demolition	0	0
Vehicles and appliances	1 236 006 800	0
TOTAL	20,472,534,231	8,868,647,065
	29 341 181	296





Investment in PHP



VI. LEGAL ENVIRONMENT



VI. LEGAL ENVIRONMENT



Please refer to the separate memo on Legal Environment





VIII. KEY ADVISORS



