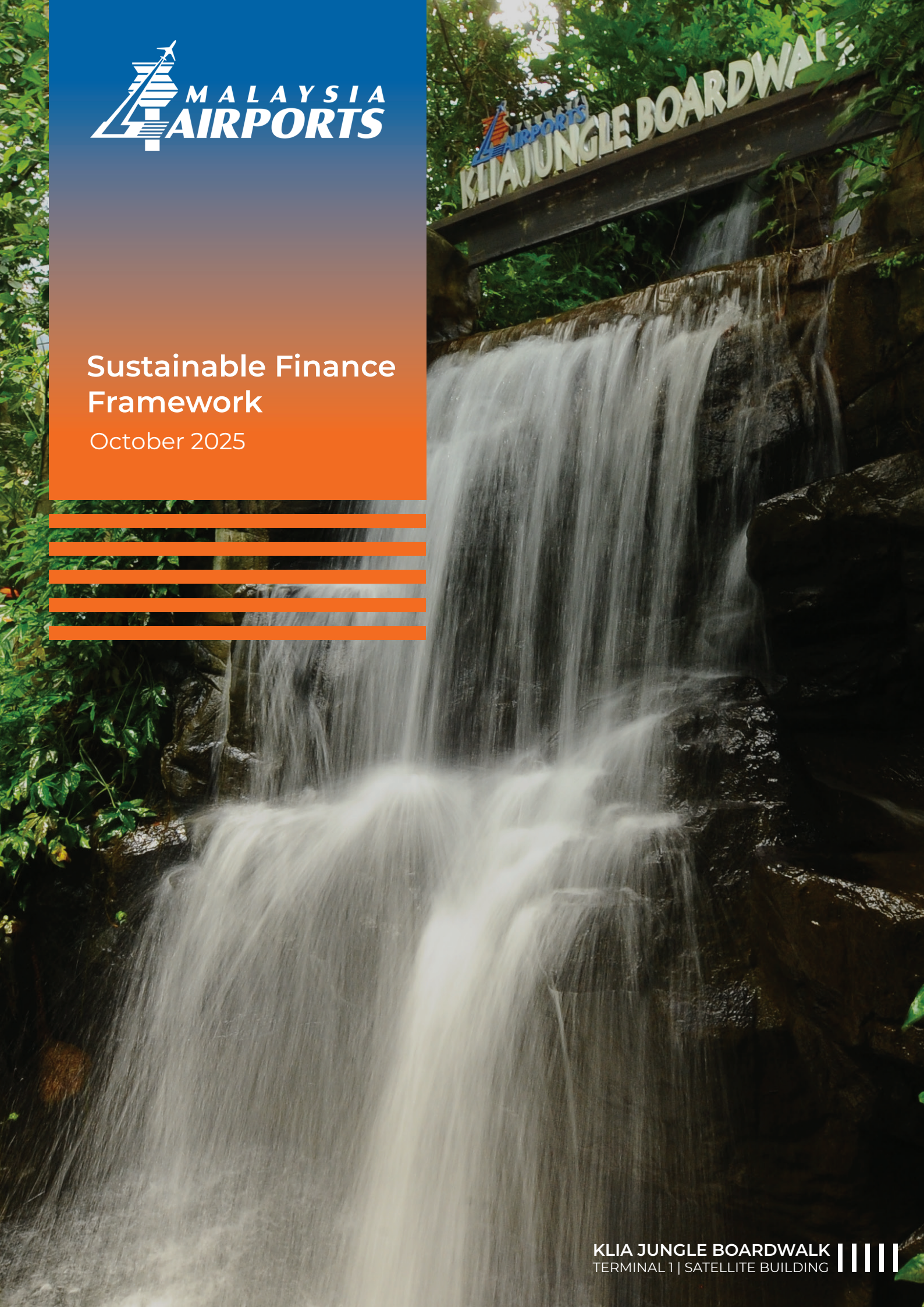
MALAYSIA AIRPORTS

Sustainable Finance Framework

October 2025



KLIA JUNGLE BOARDWALK
TERMINAL 1 | SATELLITE BUILDING

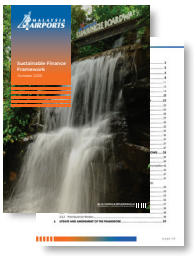
Table of Contents

GLOSSARY

ACA	Airport Carbon Accreditation
A-CDM	Airport Collaborative Decision Making
ACI	Airports Council International
ACMF	ASEAN Capital Markets Forum
ACR	American Carbon Registry
AOR	Sultan Abdul Halim Airport, Alor Setar
APLMA	Asia Pacific Loan Market Association
APU	Auxiliary Power Unit
ATB	ASEAN Taxonomy Board
ATM	Air Traffic Management
ASQ	Airport Service Quality
AWS	Alternative Water Supply
BAU	Business-As-Usual
BEI	Building Energy Intensity
BESS	Battery Energy Storage System
BIPV	Building Integrated Photovoltaics
BKI	Kota Kinabalu International Airport
BREEAM	Building Research Establishment Environmental Assessment Method
BTU	Bintulu Airport
CAPA	Centre for Aviation
CAPEX	Capital Expenditure
CAR	Climate Action Reserve
CCO	Continuous Climb Operations
CCUS	Carbon Capture, Utilization and Storage
CDO	Continuous Descent Operations
ÇEDBİK	Turkish Green Building Council
CO_2	Carbon dioxide
CPDLC	Controller Pilot Data Link Communications
CRESS	Corporate Renewable Energy Supply Scheme
CTFH	Climate Transition Finance Handbook
DAC	Direct Air Capture
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen
e-GSE	Electric Ground Support Equipment
EHSOR	Environment, Health, Safety, Operational Risk
EMP 2.0	Environmental Masterplan 2.0
EMS	Environmental Management System
EPC	Energy Performance Certificate
ESG	Environmental, Social, Governance
EV	Electric Vehicles
eVTOL	Electric Vertical Take-Off and Landing
FSC	Forest Stewardship Council
GBI	Green Building Index
GBP	Green Bond Principles
GBS	ASEAN Green Bond Standards
GDA	Gateway Development Alliance
GET	Green Energy Tariff
GHG	Greenhouse Gas
GLP	Green Loan Principles
GPU	Ground Power Units
GreenRE	Green Real Estate
GRESB	Global Real Estate Sustainability Benchmark
GSE	Ground Support Equipment
GSS	Green, Social, and Sustainability
HVAC	Heating, Ventilation, and Air Conditioning
ICAO	International Civil Aviation Organization
ICMA	International Capital Market Association
IoT	Internet of Things
IPCC	Intergovernmental Panel on Climate Change
IPH	Sultan Azlan Shah Airport, Ipoh
IRENA	International Renewable Energy Agency
ISCC	International Sustainability and Carbon Certification
KBR	Sultan Ismail Petra Airport, Kota Bharu
KCH	Kuching International Airport
KPI	Key Performance Indicator
KUA	Sultan Ahmad Shah Airport, Kuantan

KUL	Kuala Lumpur International Airport
LBU	Labuan Airport
LDU	Lahad Datu Airport
LED	Light Emitting Diodes
LEED	Leadership in Energy and Environmental Design
LGK	Langkawi International Airport
LMA	Loan Market Association
LMN	Limbang Airport
LSTA	Loan Syndications and Trading Association
LTAG	Long-Term Aspirational Goal
MA Sepang	Malaysia Airports Sepang Sdn Bhd
MADB	Malaysia Aviation Decarbonisation Blueprint
MAHB/ Malaysia Airports	Malaysia Airports Holdings Berhad
MASB	Malaysia Airports Sdn Bhd
MKM	Mukah Airport
MKZ	Melaka Airport
MSME	Micro Small and Medium Enterprise
MSPO	Malaysian Sustainable Palm Oil
MTCS	Malaysian Timber Certification Scheme
MyGAP	Malaysian Good Agricultural Practice
MYY	Miri Airport
MZV	Mulu Airport
NACGSA	National Corporate Governance & Sustainability Award
NETR	National Energy Transition Roadmap
NRW	Non-Revenue Water
OPEX	Operational Expenditures
PCA	Pre Conditioned Air
PED	Primary Energy Demand
PEFC	Programme for the Endorsement of Forest Certification
PEN	Penang International Airport
RAS	Rural Air Services
RE	Renewable Energy
RECs	Renewable Energy Certificates
RSPO	Roundtable on Sustainable Palm Oil
SAF	Sustainable Aviation Fuel
SAW	Istanbul Sabiha Gökçen International Airport
SBG	Sustainability Bond Guidelines
SBP	Social Bond Principles
SBS	ASEAN Social Bond Standards
SBTi	Science Based Targets initiative
SBW	Sibu Airport
SC	Securities Commission Malaysia
SDK	Sandakan Airport
SELCO	Self-Consumption
SFT	Sustainability Finance Transaction
SLBP	Sustainability-Linked Bond Principles
SLBS	ASEAN Sustainability-Linked Bond Standards
SLLP	Sustainability-Linked Loan Principles
SLP	Social Loan Principles
SME	Small and Medium Enterprise
SPO	Second Party Opinion
SPT	Sustainability Performance Target
SRI	Sustainable and Responsible Investment
STOLports	Short Take-Off and Landing Ports
SUS	ASEAN Sustainability Bond Standards
SZB	Sultan Abdul Aziz Shah Airport, Subang
TBO	Trajectory-Based Operations
TGG	Sultan Mahmud Airport, Kuala Terengganu
TNB	Tenaga Nasional Berhad
TWU	Tawau Airport
UN SDGs	United Nations Sustainable Development Goals
UNPRI	UN Principles for Responsible Investment
VCS	Verified Carbon Standard
WEPLS	Water Efficiency Product Labelling Scheme

EXECUTIVE SUMMARY



Malaysia Airports has developed this integrated Sustainable Finance Framework, which combines the **Use of Proceeds** and **Sustainability-Linked formats**, as its guiding principles for Malaysia Airports and its subsidiaries (the "Group") to enter into Sustainability Finance Transactions (SFTs). Under this Framework, SFTs may be undertaken by the Group, as well as by special purpose vehicles and joint ventures, in accordance with the structures set out in Section 4 and Section 5.

USE OF PROCEEDS (UOP) FINANCING

Malaysia Airports' Use of Proceeds SFTs include Sustainable and Responsible Investment (SRI), Green, Social, Sustainability, and Transition SFTs used exclusively for Eligible Projects:

Eligible Green Projects	Eligible Social Projects	Eligible Transition Projects
▪ Energy Efficiency ▪ Renewable Energy ▪ Clean Transportation ▪ Green Building ▪ Terrestrial and Aquatic Biodiversity Conservation ▪ Sustainable Water and Wastewater Management ▪ Pollution Prevention and Control ▪ Environmentally Sustainable Natural Resources Use ▪ Climate Change Adaptation	▪ Socioeconomic Advancement and Empowerment ▪ Employment Generation	▪ Low-Carbon Aviation Infrastructure

SUSTAINABILITY-LINKED FINANCING

Malaysia Airports' Sustainability-Linked SFTs include SRI-Linked and Sustainability-Linked SFTs measured through predefined Key Performance indicators (KPIs) and Sustainability Performance Targets (SPTs):

KPIs	SPTs
Scope 1 and Scope 2 GHG emissions	▪ **SPT 1.1a:** Reduce absolute Scope 1 and Scope 2 GHG emissions by **45% for KUL** compared to a 2016 baseline, by 31/12/2030 ▪ **SPT 1.1b:** Reduce absolute Scope 1 and Scope 2 GHG emissions by **30% for MASB** compared to a 2023 baseline, by 31/12/2030 ▪ **SPT 1.2a:** Reduce absolute Scope 1 and Scope 2 GHG emissions by **100% for KUL** compared to a 2016 baseline, by 31/12/2040 ▪ **SPT 1.2b:** Reduce absolute Scope 1 and Scope 2 GHG emissions by **100% for MASB** compared to a 2023 baseline, by 31/12/2040
Proportion of renewable energy used against total energy consumption	▪ **SPT 2:** Increase the proportion of renewable energy used against total energy consumption to **20% for KUL and MASB** compared to a 2023 baseline, by 31/12/2030
Airport Carbon Accreditation (ACA) level	▪ **SPT 3:** Achieve at least **ACA Level 4** for KUL, by 31/12/2035

1 BACKGROUND[1]

Malaysia Airports was first incorporated in 1992, when it was corporatised as Malaysia Airports Berhad from its previous standing as a state-run airport operator. In 1999, Malaysia Airports Holdings Berhad (MAHB) was incorporated as a public limited company and listed on Bursa Malaysia, becoming the first Asian airport operator to go public and only the sixth in the world to do so. As of 2025, Malaysia Airports has been privatised by the Gateway Development Alliance (GDA) Consortium after being publicly listed for 25 years.

Today, Malaysia Airports is one of the world's largest airport operator groups based on the total number of passengers handled annually. As at 31 December 2024, Malaysia Airports manages 39 airports across Malaysia — 5 international airports, 17 domestic airports, and 17 Short Take-Off and Landing Ports (STOLports) — and 1 international airport in Türkiye.

Airport Services | **Duty Free and Non-dutiable Goods** | **Hotel** | **Project and Repair Maintenance** | **Agriculture and Horticulture**

Malaysia Airports' operations in Malaysia comprise five key business activities: airport services, duty-free and non-dutiable goods, project and repair maintenance, hotel, and agriculture and horticulture. For overseas operations, in addition to the ownership and management of Istanbul Sabiha Gökçen International Airport in Istanbul, Türkiye, Malaysia Airports also provide services for operations and maintenance of airports and airport-related services.

Malaysia Airports' core business is the management, operation, maintenance, and development of airports. Malaysia Airports draws its revenue from **(i) aeronautical operations,** which include aircraft landing and parking fees, passenger service charges, and other airline charges, and **(ii) commercial activities,** comprising airport-related services such as duty-free shops and other retail outlets, hotel operations, and commercial leasing. Over the past several decades, Malaysia Airports has developed a business model that focuses not only on the airport business but also on optimising the commercial and growth opportunities presented by the travel and aviation industry.

As Malaysia Airports moves forward, the vision is to be a global airport group that champions connectivity and sustainability by delighting people and businesses with world-standard services while delivering sustainable value to all stakeholders.

The diversification of Malaysia Airports' business activities has not only allowed Malaysia Airports to keep aviation charges at a competitive level but also to maintain robust and sustainable returns to shareholders. Moreover, the model has allowed Malaysia Airports to cross-subsidise the vital, but less lucrative operations of the smaller landing strips and airports where rural communities depend on air transport to connect with the closest townships or cities, especially in Sabah and Sarawak. Malaysia Airports sees the continuing operation of these remote airbases as a crucial part of its social responsibility as a corporate citizen.

[1] References: https://www.malaysiaairports.com.my/en/about-us/corporate-profile/our-profile

Malaysia Airports' Awards and Industry Recognition[2]

Malaysia Airports' recognition from prominent industry players stands as testimony to its world-class services:

Malaysia Airports Awards and Industry Recognition	
Putra Brand Awards	▪ 2024 Putra Brand Awards o Gold Award | Transportation, Travel & Tourism ▪ 2023 Putra Brand Awards o Bronze Award | Transportation, Travel & Tourism
Airports Council International (ACI)	▪ ACI Airport Service Quality (ASQ) Awards o Kuala Lumpur International Airports (KUL) • Level 2 Accreditation for ACI Airport Customer Experience Accreditation Programme • 2022 | Easiest Airport Journey; Airport with the Most; Dedicated Staff; Most Enjoyable Airport; Cleanest Airport o Langkawi International Airport (LGK) • 2022 - 2024 | Best Airport (2-5 mppa) ▪ Green Airports Recognition 2022: Carbon Management o Kuala Lumpur International Airports (KUL)
Centre for Aviation (CAPA)	▪ CAPA Large Airport of the Year 2024 o Kuala Lumpur International Airports (KUL)
Malaysia Urban Planning Awards	▪ Anugerah Penghargaan Khas Persekitaran Mesra Autisme 2024
Alpha Southeast Asia's Institutional Investor Awards	▪ 2024 Corporate Awards | o Top 5 for Best Senior Management IR Support o Top 5 for Best Strategic CSR o Top 5 for Strongest Adherence to Corporate Governance ▪ 2022 Corporate Awards | o Most Improved Investor Relations (Malaysia) o Top 5 for Best Senior Management IR Support o Top 5 for Best Strategic CSR (Malaysia)
Minority Shareholders Watch Group	▪ 2024 National Corporate Governance & Sustainability Award (NACGSA) o Ranked 30th in Top 50 Excellence Award
Skytrax	▪ KUL o Ranked 8th in Skytrax's World's Best Airports 2025 (50 - 60 mppa) ▪ Kuala Lumpur International Airports T2 o Ranked 6th for World's Best Low-Cost Airline Terminals 2025
Bluesky Awards for Aviation Achievement	▪ Istanbul Sabiha Gökçen International Airport (SAW) o 2024 | Digital and Innovative Airport of the Year; Aviation R&D Innovation Project of the Year; Aviation Innovation Technology Project of the Year o 2023 | Digital Airport of the Year; Aviation Accessibility Project of the Year; Aviation Technology Project of the Year; Aviation Design Project of the Year; Aviation Green Innovation Project of the Year; Aviation Social Responsibility Project of the Year; First and Achievements in Aviation o 2022 | Digital Airport of the Year

[2] Selected accolades won by Malaysia Airports across 2022 - 2025.

2 SUSTAINABILITY AT MALAYSIA AIRPORTS

VISION A Global Airport Group that Champions Connectivity and Sustainability

Malaysia Airports recognises that to achieve its corporate vision, Malaysia Airports needs to go beyond creating economic value for shareholders. Rather, there is a need to balance profit-making and operational excellence, conducting business in a manner that is responsible, sustainable, and creates long term value for stakeholders. In this regard, operations must be built on the foundations of sustainability which combine business goals with solid Environmental, Social, and Governance (ESG) considerations.

Malaysia Airports is committed to growing responsibly and will continue to manage and reduce impact on the environment caused by its business operations whilst supporting and strengthening community engagement especially within the vicinity of its operations.

Any updates to Malaysia Airports' sustainability strategy will be made available on Malaysia Airports' corporate website https://www.malaysiaairports.com.my/en, or reflected within its reporting.

Malaysia Airports' Priority United Nations' Sustainability Development Goals

Malaysia Airports Sustainability Framework

Malaysia Airports has been guided by a Sustainability Policy since 2010. In 2024, Malaysia Airports established a revised Sustainability Framework that aims to provide a more holistic approach in addressing the Group's Material Matters and aligning with its organisational strategy.

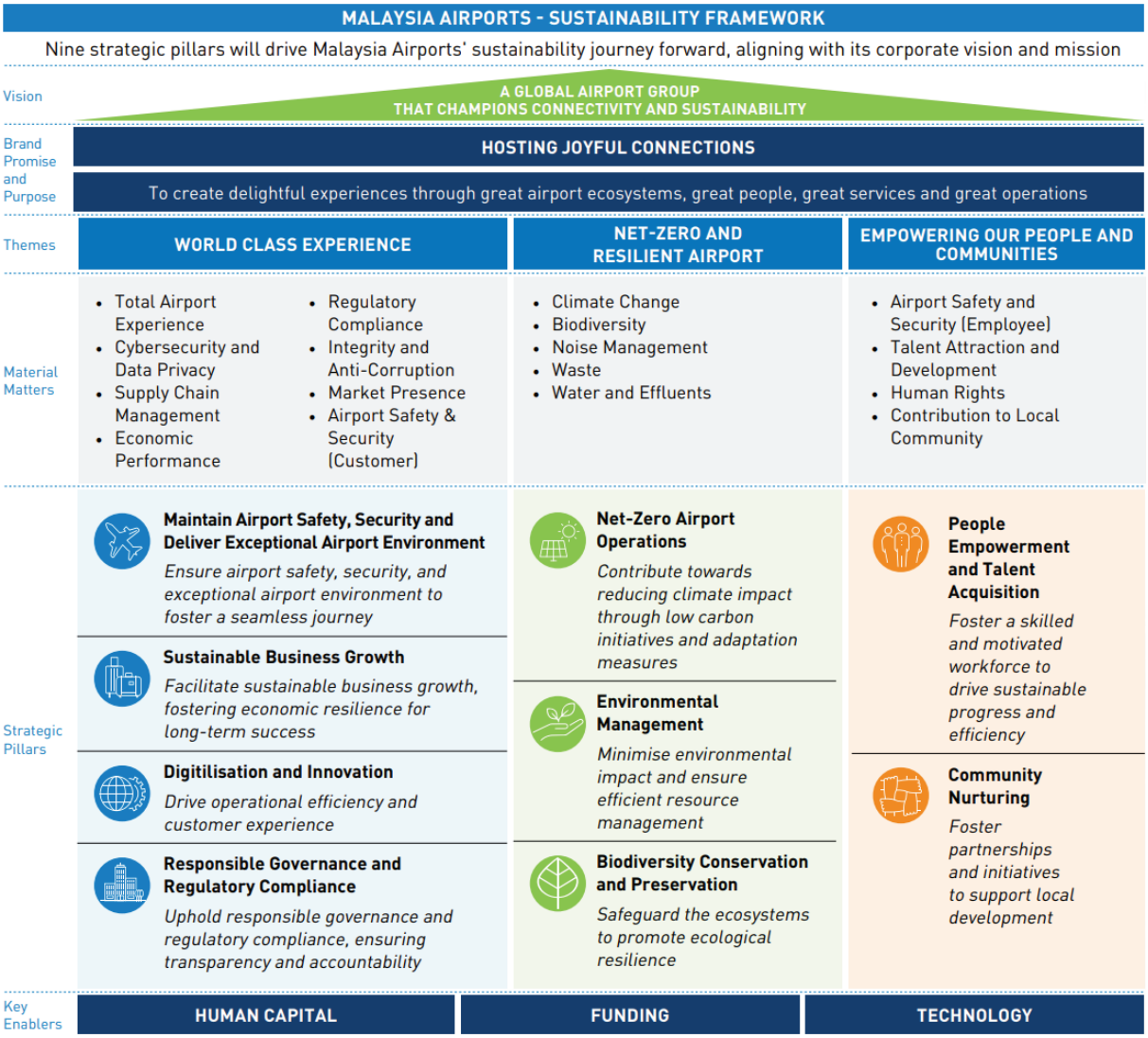


Figure 1: MAHB Sustainability Framework

Sustainability Accreditation[3]

Operating airports with an environmental consciousness is vital for Malaysia Airports. At Malaysia Airports, such efforts are supported by internationally recognised methodologies:

Sustainability Certification at Malaysia Airports			Current Status
	Airports Council International (ACI) Airport Carbon Accreditation Program	The Airport Carbon Accreditation (ACA) Program supports airports in achieving structured, measurable, and transparent progress in carbon reduction. ACA aims to drive the aviation industry toward sustainable, long-term climate goals.	▪ Kuala Lumpur International Airports (KUL) – **Level 3** ▪ Langkawi International Airport (LGK) – **Level 1** ▪ Kota Kinabalu International Airport (BKI) – **Level 1**
	Green Building Index (GBI) Certification	The GBI certification aims to create sustainable, energy-efficient, and low-impact buildings that prioritize occupant health, resource conservation, and community connectivity.	▪ Kuala Lumpur International Airports 2 Main Terminal Building – **GBI Silver**
	Leadership in Energy and Environmental Design (LEED) Certification	LEED certification seeks to create sustainable, energy-efficient, and environmentally responsible buildings that improve occupant health, support community well-being, and reduce ecological impact.	▪ Kuala Lumpur International Airports 2 Main Terminal Building – **LEED Gold**
	Environmental Management System (EMS)	The main goal of an EMS is to manage and reduce the environmental impact of an organization through compliance, efficiency, risk management, and continuous improvement. These objectives promote sustainability, enhance corporate responsibility, and contribute to the organization's long-term viability and reputation.	▪ 10 Airports have obtained EMS Certification

[3] As at 31 December 2024

2.1 Malaysia Airports' Climate Transition Agenda

Aviation Industry Climate Commitment

- In 2021, ACI member airports at a global level commit to reach net zero carbon emissions by 2050 and urge governments to provide the necessary support in this endeavour[4].
- At the 41st Assembly of the International Civil Aviation Organization (ICAO) in October 2022, member states adopted the Long-Term Aspirational Goal (LTAG)[5] for international aviation of Net-Zero Carbon Emissions by 2050.

To succeed, this LTAG will require the coordinated efforts of the entire industry (airlines, airports, air navigation service providers, manufacturers), backed by supportive government policies.

Decarbonising the Malaysian Aviation Landscape

Malaysia, as a member state of ICAO, supports LTAG as a collective global aspirational goal. In line with this goal, Malaysia's National Energy Transition Roadmap (NETR)[6] published in 2023 is poised to promote the adoption of Sustainable Aviation Fuel (SAF), recognising its potential to deliver substantial reduction in all emissions.

In line with the key initiatives outlined under the NETR's Energy Transition Lever: Green Mobility- Aviation, the Ministry of Transport Malaysia has developed its sustainable aviation blueprint known as Malaysia Aviation Decarbonisation Blueprint (MADB)[7], outlining a comprehensive strategy for decarbonising the Malaysian aviation sector including providing a clear pathway for achieving net zero emission by 2050, whilst ensuring the sector can grow sustainably.

As highlighted in the MADB, the design, operations and ease of use of airports significantly impact aircraft ground emissions. Together with other aviation industry stakeholders, Malaysia Airports is a **member of the MADB Steering Committee**, which was established to monitor and review the implementation of initiatives outlined in the MADB and is chaired by the Ministry of Transport.

[4] References: https://aci.aero/2021/06/08/net-zero-by-2050-aci-sets-global-long-term-carbon-goal-for-airports/
[5] References: https://www.icao.int/environmental-protection/Documents/Assembly/Resolution_A41-21_Climate_change.pdf
[6] References: https://ekonomi.gov.my/sites/default/files/2023-08/National%20Energy%20Transition%20Roadmap.pdf
[7] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20Bl%20FA.pdf

Enabling Malaysia's transition as a Sustainable Aviation Hub

Malaysia Airports supports the global, national, and aviation industry sustainability aspirations, and is committed to advancing sustainability across airport operations - aligning with its broader mission to adopt eco-friendly infrastructure and practices.

Malaysia Airports has established several key targets towards decarbonisation in its Environmental Masterplan (EMP) 1.0 and 2.0.

This includes the setting of clear targets towards decarbonisation in the long term:

1. Achieve **Net Zero Scope 1 and 2 by 2040** for Kuala Lumpur International Airport (KUL) and Malaysia Airports Sdn Bhd (MASB);
2. Achieve **Net Zero Scope 1, 2, and 3 by 2050** for KUL and MASB.

The EMP 2.0 has been highlighted as one of six Airport Measures within the MADB, supporting the pathway of Net Zero 2050.

The EMP 2.0 covers the eight key environmental aspects which are most relevant to the Group's business activities, and to which the Group has the greatest potential to bring positive impact.

The eight key elements highlighted above (namely energy, water, waste, carbon, land contamination, noise pollution, air quality and wildlife), are managed, reviewed annually and updated periodically to reflect new and emerging requirements, as well as to keep pace with advances in airport sustainability initiatives and future aspirations.

2.2 Malaysia Airports' Sustainability Governance

At Malaysia Airports, sustainability and sound corporate governance are at its core, fostering a culture of accountability, integrity, and transparency. This foundation guides the Group's strategic direction and its commitment toward a sustainable future.

The Group's sustainability governance structure leverages the collective expertise and experience of its Board of Directors, Board Environment, Health, Safety, Operational Risk (EHSOR) Committee, various Sustainability Working Committees across subsidiaries and business divisions, and the Sustainability Department. Through this structure, Malaysia Airports strives to ensure that sustainability is fully embedded into its value chain and practices, driving long-term sustainable value creation.

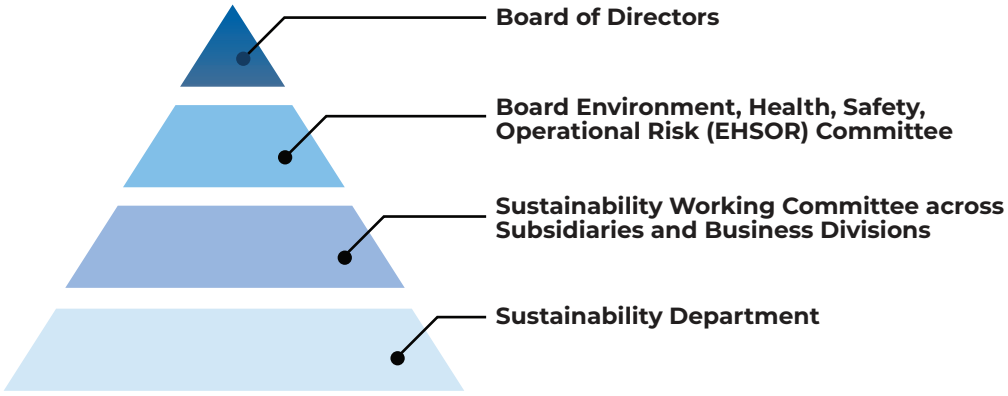


Figure 2: MAHB's Sustainability Governance Structure

Board of Directors

- The **Board of Directors (the Board)** provides overall strategic direction and approval with regards to Malaysia Airports' sustainability related matters.
- The Board has overall responsibility and commitment to establishing and maintaining sound risk management and internal control systems; designed to manage rather than eliminate risks.

Board Environment, Health, Safety, Operational Risk (EHSOR) Committee

- The **Board EHSOR Committee** endorses, reviews and monitors the effectiveness of sustainability strategies, policies, principles, practices, and priorities in line with the business strategy and objectives of the Company, including commitment to net zero carbon.

Sustainability Working Committee

- As part of its sustainability initiatives in 2025, Malaysia Airports is reactivating its **Sustainability Working Committee**, which is responsible for recommendation and strategic coordination of all sustainability related projects and matters to be brought to the Board Level.
- The Sustainability Working Committee will meet quarterly and will comprise of relevant parties across key subsidiaries and business divisions.

Sustainability Department

- The **Sustainability Department** plays a role in overall strategy and does constant monitoring of progress of all sustainability related matters and undertakes capacity building to the rest of the core functions across the organization.

2.3 Malaysia Airports' Strategy towards Net Zero Carbon Emissions by 2050

In collaboration with relevant aviation industry stakeholders, Malaysia Airports supports the decarbonisation aspirations of the aviation sector such as guided by ACI, and the MADB, which will enable the operation of next generation aircraft and the fuels that will power them.

The Airports Council International (ACI)'s Long-Term Carbon Goal Study for Airports[8]

Aligned with the Intergovernmental Panel on Climate Change (IPCC) recommendation to limit temperature rise to 1.5°C above pre-industrial levels, the goal of ACI member airports as a sector is to transition to Net Zero Carbon emissions by 2050.

Several emission reduction opportunities have been identified based on ACI's scenario-based analysis and modelling of meaningful emission reduction opportunities to decarbonise, and mapped against a likely timeline for broad application:

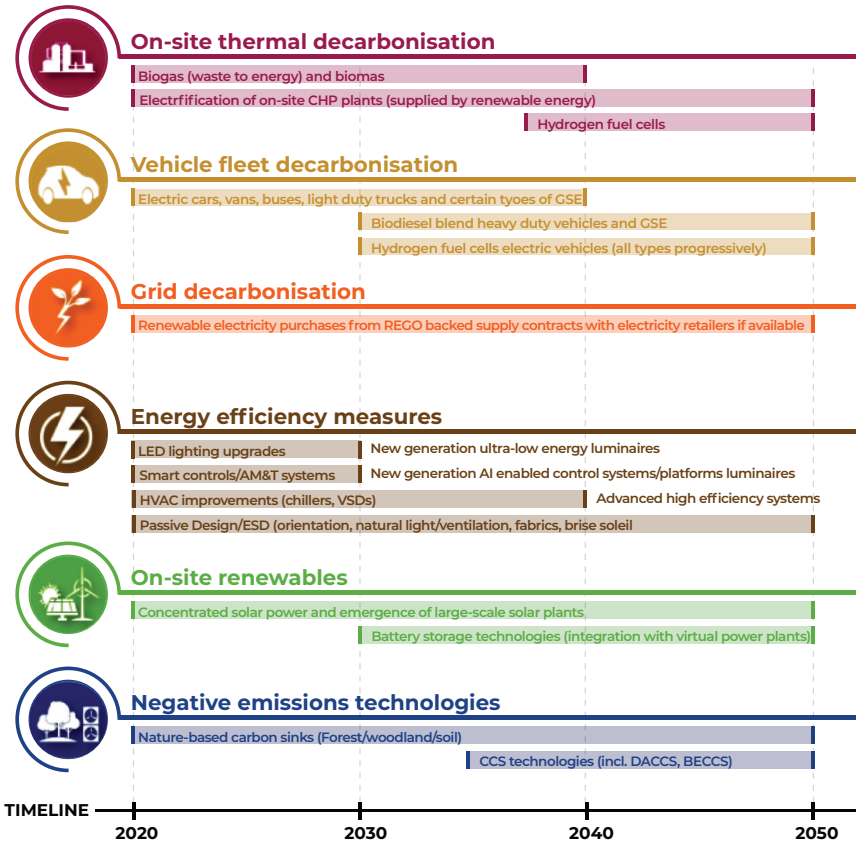


Figure 3: ACI Emission Reduction Measures and Implementation Timeline

The potential scale of contributions of the emission reduction opportunities that over time would decarbonise the sector is highlighted below, but subject to strong influenced by

[8] References: https://store.aci.aero/product/long-term-carbon-goal-study-for-airports-report-2021/

local, regional and global policies, availability and maturity of technologies, partnerships and collaborative actions:

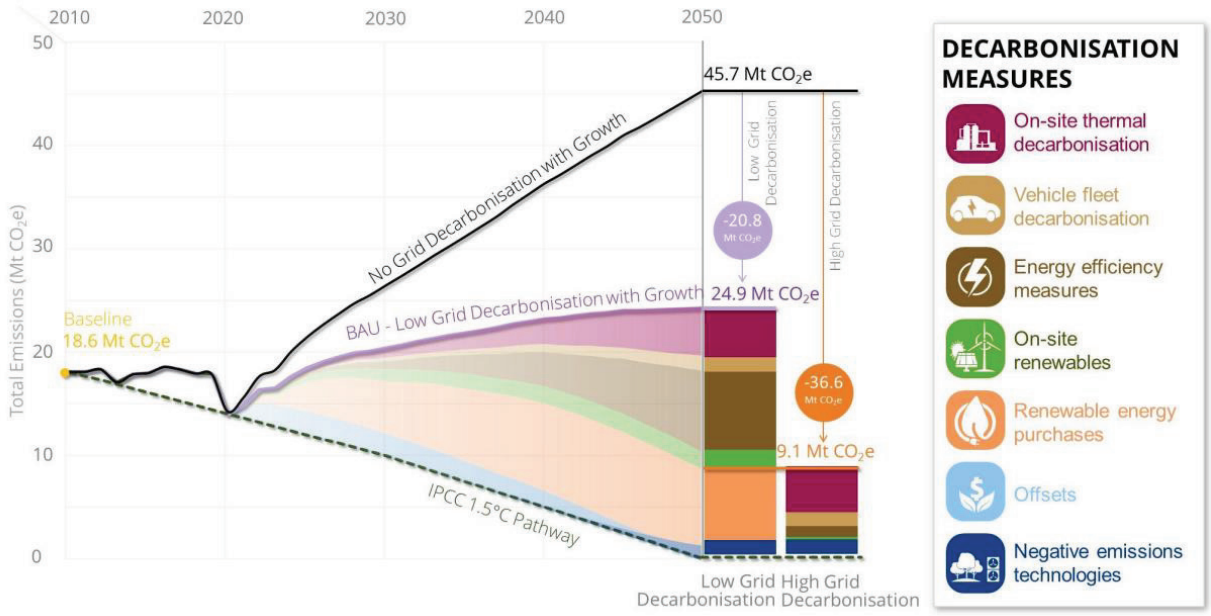
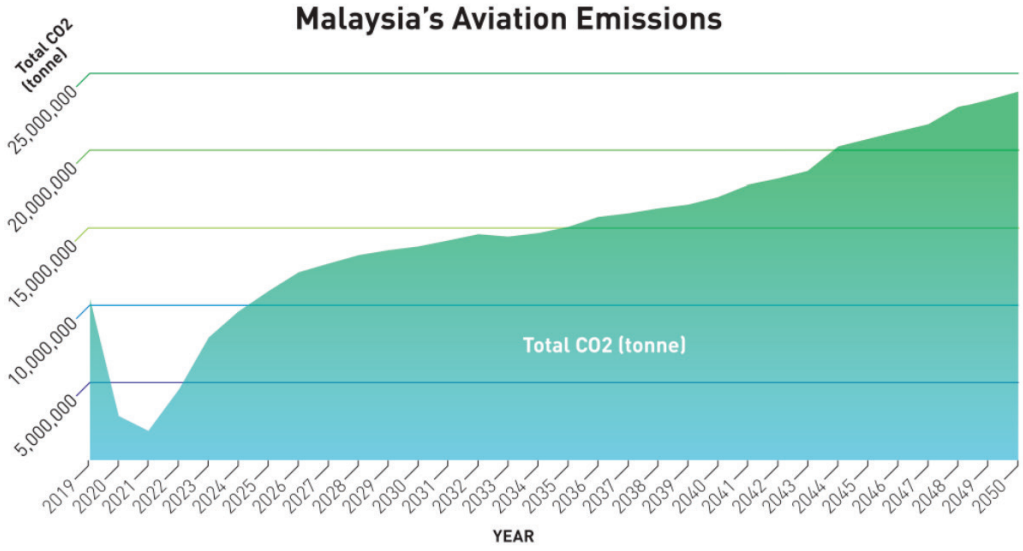


Figure 4: ACI Global Emissions Reduction Pathway and Emission Reduction Measure Contributions

Malaysia Aviation Decarbonisation Blueprint (MADB)[9]

In Malaysia, all major local airlines and cargo operators that operate internationally and emit significant carbon emissions have begun providing their fuel consumption data from 2010. This data collection and growth estimations are based on publications and references by ICAO. The result is shown in the following graph[10] as the Business-As-Usual (BAU) baseline data for Malaysia's aviation emissions below. Domestic emission makes up between 20 to 30% of total emissions.



[9] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20BI%20FA.pdf
[10] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20BI%20FA.pdf

MADB has established a comprehensive framework of industry-wide measures towards achieving Net Zero by 2050. This framework sets the stage for targeted strategies and initiatives aimed at mitigating emissions, and forecasts the following long-term 2050 decarbonisation targets from in-sector measures based on Malaysia's revised Neutral Emission Reduction Scenario[11]:

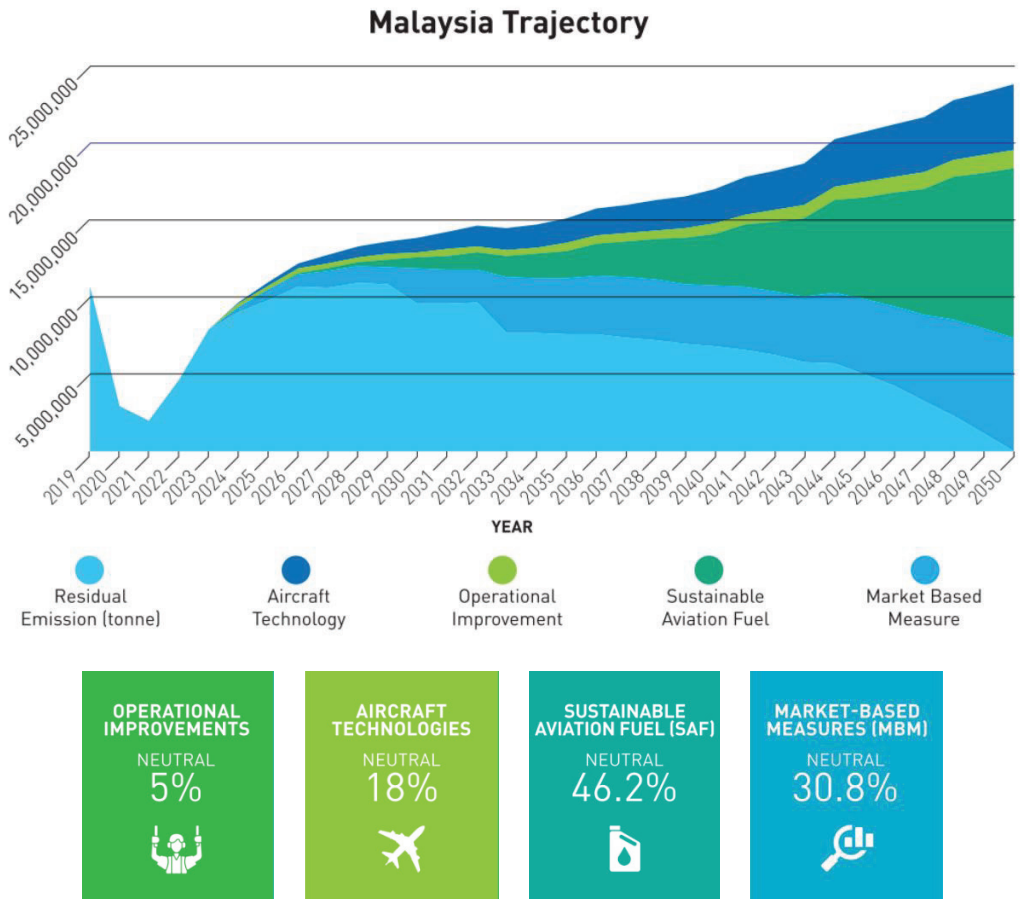


Figure 5: Malaysia's Trajectory Towards Net Zero in the Aviation and Airport Sector

[11] Malaysia decided to adopt the Neutral Scenario as it was considered the most achievable at the point of discussion given that the sector was still deeply affected by the COVID-19 pandemic. Additionally, the shared concern regarding higher SAF prices and low availability did not warrant a higher utilisation percentage in the decarbonisation target.

Malaysia Airports' Journey to Net Zero Carbon 2050

One of the key features of Malaysia Airports' Environmental Masterplan, is its roadmap towards Net Zero Carbon Emissions by 2050. Targets and milestones for Net Zero Scope 1 and Scope 2 emissions are set by 2040 and Net Zero 1, 2 and Scope 3 emissions by 2050.

Moving towards long-term targets for Net Zero Carbon Emissions by 2050, Malaysia Airports is refining its decarbonisation strategy and will be undergoing the appointment of sustainability experts and consultants for the development of the Malaysia Airports decarbonisation roadmap in 2025.

Malaysia Airports has embraced sustainability initiatives that are environmentally conscious in its airport operations since establishment of its Environmental Masterplan 1.0 in 2020.

2021	2022	2023	2024	2025
Spurring Bold Action	**Inspiring Brave Ambitions**	**A Breakthrough Year**	-	-
1. KUL Sustainability Charter	1. ESG Framework Transition 2. Environmental Masterplan 2.0 3. Integrated Reporting and Establishment ESG Performance Disclosure	1. ESG Framework (Appointment of Consultant) 2. Establishment of Board Sustainability Committee 3. Establishment of Management Sustainability Committee 4. Engagement with solar developers for Aeropolis Solar Park 5. Engagement with Electric Vehicle (EV) Operators for Airside EV Charging	1. ESG Framework Completion 2. Materiality Analysis 3. Enrolment for ACA Level 1 for BKI and LGK	1. Development of Decarbonisation Roadmap 2. Development of extensive GHG data inventory for overall airports 3. Enrolment for ACA Level 1 for Penang International Airport (PEN) & Kuching International Airport (KCH) 4. Adoption of GBI for Airport Planning and Expansion 5. Re-activation of Sustainability Working Committee across Subsidiaries and Business Divisions

As part of its **Phase 1 (2023 – 2026)** journey towards net zero emissions (primarily addressing Scope 1 and Scope 2 emissions), Malaysia Airports has rolled out initiatives towards the reduction of Scope 1 and Scope 2 emissions for KUL by 25% and for all other airports in Malaysia by 15%:

A. Renewable Energy	B. Alternative Water Supply
▪ Solar Energy (14 MWp – Rooftop & Carpark) at Kuala Lumpur International Airports T1 ▪ Installation of solar panel at 7 Domestic MASB airports capacity (8.5MWp): - o Completed in 2021: Melaka, Kuantan o Completed in 2022: Penang, Langkawi o Completed in January 2023: Kota Kinabalu o On-going: Alor Setar & Ipoh	▪ Alternative Water Supply (AWS)- to produce potable water (10 ML/day) from the existing retention (Southern Balancing Pond) in Kuala Lumpur International Airports vicinity

C. Rainwater Harvesting	D. Electric Vehicle Charging Station	E. Energy Efficiency
▪ Rainwater harvesting ▪ Flushing system and irrigation for T2, Kuala Lumpur International Airports ▪ Fire vehicle tests at Melaka Airport	▪ Malaysia Airports has also set up public electric charging stations with ChargEV (3 – 22 kw AC) at the KUL parking lot as part of its effort to embrace green technology	▪ Replacement of lighting to Light Emitting Diode (LED) at Terminal Buildings ▪ Airfield ground lighting LED fitting replacement ▪ Purchase of Green Energy Tariff (GET)

Moving towards the long term target of Net Zero by 2050, Malaysia Airports will be employing decarbonisation levers guided by global and national aviation decarbonisation strategy.

International Civil Aviation Organization	Ministry of Transport
ICAO Environmental Standards: ▪ Annex 16 Vol I (Aircraft Noise) ▪ Annex 16 Vol II (Limit Aviation Emission)	Malaysia Airports supports all six Airport Measures identified within the Malaysia Aviation Decarbonisation Blueprint: ▪ Airport collaborative decision making (A-CDM) ▪ Substituting Auxiliary Power Unit (APU) with ground power & preconditioned air cart ▪ Energy efficiency ▪ Ground electrification and green energy supply ▪ Aviation waste management ▪ Airport Environmental Management Plan

Malaysia Airports' key sustainability initiatives in line with the MADB:

Airline Synergy

Airport Collaborative Decision Making (A-CDM)

- Reduction of taxi times to reduce C02 emissions.

Substituting APU with Ground Power Units (GPU) & Preconditioned Air (PCA) Carts Targeted Outcome

- Airport operators/ ground handlers to supply GPU and PCA carts during transits and aircraft servicing such as cleaning and maintenance.

Ground Electrification and Green Energy Supply

- Transition to electric ground vehicles and low carbon intensive biofuels. Targeted vehicles include tugs, push-back trucks and baggage trolleys.

Building Optimisation

Energy Efficiency

- To reduce overall Greenhouse Gas Emissions under Scope 1 and 2. Key targets would be optimisation of cooling and lighting.
- Integrate renewable energy such as solar to increase renewable energy mix. Malaysia Airports currently has 22.5 MWp solar power capacity in six airports. Building automation systems are to be adopted to ensure savings by monitoring air temperature, lighting and pressure.

Airport Environmental Management Plan (EMP) 2.0 – Airport Carbon Accreditation

- Focus on 8 key elements namely energy, water, waste, carbon, land contamination, noise pollution, air quality and wildlife management.
- To be reviewed annually.

Green Building Certification

- To look into identifying Green Building Index (GBI) certification viability for all airports. Emphasis will be placed on airports that have scheduled refurbishment and greenfield development.
- Alignment to other certifications such as Global Real Estate Sustainability Benchmark (GRESB), Green Real Estate (Green RE) and Leadership in Energy & Environmental Design (LEED).

Other Initiatives

Carbon Sequestration

- Identify any suitable opportunities to include green zones and tree planting programmes where suitable.
- Identify options for mechanical carbon capture for suitable locations.

Support Use of Sustainable Aviation Fuel (SAF)

- Provide support for fuelling infrastructure for SAF to enable airlines to receive, store and uptake pre-blended SAF at the airport.

Based on currently identified decarbonisation projects for building optimisation and airline synergy, Malaysia Airports would in the short term (spanning 2025 – 2029) require an estimated total investment of at least **MYR 2 billion**.

The MADB in section 9.3 Climate Transition Financing, acknowledges that effective financing mechanisms are necessary to support the transition toward sustainable practices and meet ambitious decarbonisation targets in the aviation sector.

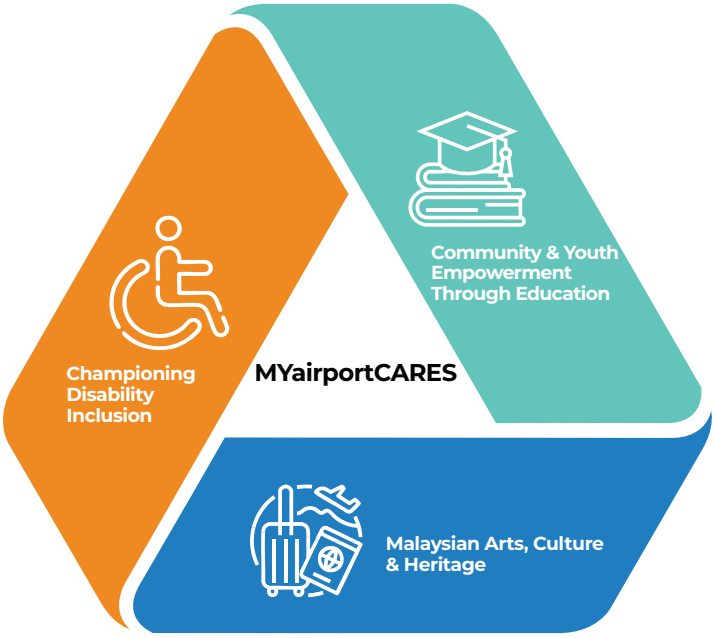
To absorb a portion of the associated costs of decarbonisation within the aviation industry, carbon fees will be introduced, based on commercial considerations. Collaboration

between the various stakeholders within the aviation industry will be vital to facilitate knowledge sharing and best practices for maximising effectiveness of carbon pricing initiatives in the aim of driving sustainable development within the aviation sector.

Just Transition for the Airport Community

Alongside Malaysia Airports' decarbonisation strategies, Malaysia Airports continues to engage with the communities that it serves. Malaysia Airports develops and executes community-centric programmes that promote the well-being of these communities, focusing on those who are underserved and those in need. In times of humanitarian crises, Malaysia Airports steps forward to alleviate the hardship of those in need of a helping hand.

At Malaysia Airports, community engagement efforts are built around three key areas:



3 SUSTAINABLE FINANCE AT MALAYSIA AIRPORTS

In support of Malaysia Airports' sustainability strategies and implementation, this Sustainable Finance Framework (the Framework) has been established to demonstrate how Malaysia Airports and its subsidiaries (the Group) intend to enter into Sustainability Finance Transactions (SFTs) to fund green, social and transition projects, that support the Group's vision to be 'A Global Airport Group that Champions Connectivity and Sustainability'.

Malaysia Airports has developed this integrated Sustainable Finance Framework which combines the Use of Proceeds and Sustainability-Linked formats which can be used independently on a case-by-case basis, retaining full flexibility in terms of specific sustainability objectives and projects that the Group intends to support. Under this Framework, SFTs may be undertaken by the Group, as well as by special purpose vehicles and joint ventures, in accordance with the structures set out in Section 4 and Section 5 below.

The SFTs may be issued in any currency and for any tenor and may include other terms and conditions (including covenants) to reflect the financing strategy and plans of the Group, as well as the outcome of the commercial discussions between the Issuer/ Borrower and Manager/ Arranger/ Lender. The SFTs may be issued in any jurisdiction and market reflecting the Group's current and future business needs.

Under this Framework, Malaysia Airports will be able to undertake different types of SFTs and/ or any other financing instruments in different formats and currencies as follows:

1. **Use of Proceeds financing instruments** i.e., Sustainable and Responsible Investment (SRI), Green, Social, Sustainability (GSS) and Transition Sukuk/ Bonds, and GSS and Transition Loans/ Financing and any other financial instrument to which an eligible asset or project as defined in Section 4, or a group of those, are allocated.

2. **Sustainability-Linked financing instruments** i.e., SRI-Linked Sukuk and Sustainability-Linked Bonds/ Loans/ Financing and any other financial instrument for which the financial and/ or structural characteristics will vary depending on whether Malaysia Airports achieves the pre-determined Sustainability Performance Target(s) (SPT(s)) as defined in Section 5.

This Framework adopts the principles and/ or guidelines set by the International Capital Market Association[12] (ICMA), ASEAN Capital Markets Forum[13] (ACMF), Securities Commission Malaysia[14] (SC), Loan Market Association (LMA)/ Asia Pacific Loan Market Association (APLMA)/ Loan Syndications & Trading Association (LSTA)[15], ASEAN Taxonomy Board (ATB) as specified below. These documents provide a set of voluntary guidelines that recommend transparency and disclosure and promote integrity in the development

[12] Reference: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/
[13] Reference: https://www.theacmf.org/initiatives/sustainable-finance
[14] Reference: https://www.sc.com.my/api/documentms/download.ashx?id=5bded761-bf84-44cc-b1ea-19a61dbe06ff
[15] Reference:https://www.lsta.org/content/?_industry_sector=guidelines-memos-primary-market&_asset_type=publication

of the sustainable finance market by clarifying the approach for raising Sustainable Finance.

With respect to bonds/ Sukuk, issuance will be aligned with the following frameworks as appropriate for the type of bond issued or as they may be subsequently amended:

- Green Bond Principles (GBP) 2025, Social Bond Principles (SBP) 2025, Sustainability Bond Guideline (SBG) 2021, and Sustainability-Linked Bond Principles (SLBP) 2024 issued by ICMA;
- ASEAN Green Bond Standards (GBS) 2018, ASEAN Social Bond Standards (SBS) 2018, ASEAN Sustainability Bond Standards (SUS) 2018, and ASEAN Sustainability-Linked Bond Standards (SLBS) 2022 issued by ACMF; and
- SRI Sukuk Framework 2014 and SRI-Linked Sukuk Framework 2022 issued by SC.

Loan transactions will be aligned with the following frameworks developed by LMA, APLMA, and LSTA or as they may be subsequently amended:

- Green Loan Principles (GLP) 2025, Social Loan Principles (SLP) 2025, and Sustainability-Linked Loan Principles (SLLP) 2025.

In addition, to underscore Malaysia Airports' role in expediting the energy transition agenda, Malaysia Airports' framework has been developed in line with the four disclosure guidelines of the Climate Transition Finance Handbook (CTFH)[16] 2023 as published by the ICMA:

1. Issuer's climate transition strategy and governance;
2. Business model environmental materiality;
3. Climate transition strategy to be 'science-based'; and
4. Implementation transparency.

Further, Malaysia Airports' Eligible Projects as defined in Section 4.1, is where relevant, guided by the Technical Screening Criteria of the ASEAN Taxonomy for Sustainable Finance Version 3[17] developed by the ASEAN Taxonomy Board.

The Framework may be updated from time to time to include other sustainable financing instruments that may be issued in the future. Malaysia Airports retains the option to issue sustainability financial instruments separate from this Framework, where deemed appropriate.

[16] Reference: https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Climate-Transition-Finance-Handbook-CTFH-June-2023-220623v2.pdf
[17] References: https://asean.org/book/asean-taxonomy-for-sustainable-finance-version-3/

4 MALAYSIA AIRPORTS' FRAMEWORK FOR USE OF PROCEEDS FINANCING

Use of Proceeds instruments, are any type of financial instruments where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/ or existing Eligible Projects as defined in Section 4.1.

This Framework for Use of Proceeds financing instruments adopts the principles and/ or guidelines as follows:

- Green Bond Principles (GBP) 2025, Social Bond Principles (SBP) 2025, and Sustainability Bond Guidelines (SBG) 2021 issued by ICMA;
- ASEAN Green Bond Standards (GBS) 2018, ASEAN Social Bond Standards (SBS) 2018, and ASEAN Sustainability Bond Standards (SUS) 2018 issued by ACMF;
- SRI Sukuk Framework 2014 issued by SC; and
- Green Loan Principles (GLP) and Social Loan Principles (SLP) 2025 issued by LMA, APLMA, and LSTA.

Malaysia Airports' Framework for Use of Proceeds is based upon the four core components of the above-mentioned market guidelines, principles and standards:

1. Use of Proceeds;
2. Project Evaluation and Selection;
3. Management of Proceeds; and
4. Reporting.

4.1 Use of Proceeds

Malaysia Airports is committed that the proceeds of each transaction will be used exclusively for financing and/ or refinancing[18] projects, assets, or activities (Eligible Projects) that meet the eligibility criteria for the eligible green, social, and/ or transition categories (Eligible Categories) set out below.

i. Eligible Types of Investments
   - Eligible Projects can include investments and capital expenditures (CAPEX) and operational expenditures (OPEX) meeting the eligibility criteria outlined below

ii. Lookback[19] Period for OPEX
   - Any refinancing of OPEX in relation the Eligible Projects, will be subject to a maximum look-back period of up to 36 months from the time of issuance

For the avoidance of doubt, the proceeds can be used by Malaysia Airports for working capital requirements relating to an Eligible Project, refinancing of existing debt relating to an Eligible Project, fees and expenses in relation to each Eligible Project and/ or inter-company advances to Malaysia Airports and its subsidiaries in relation to each Eligible Project, so long as the proceeds are not used to fund new or existing assets, businesses, projects and/ or products falling outside the Eligible Projects identified.

[18] Where relevant, MAHB will specify the amount of proceeds being allocated for refinancing and for which Eligible Projects to be refinanced within the corresponding transaction documentations.
[19] "Look-back period" refers to a maximum period in the past that an Issuer will look back to identify assets/earlier disbursements to such Eligible Projects that will be included in the allocation and impact reporting.

4.1.1 Eligible Green Projects

Where applicable, Malaysia Airports' Eligible Green Projects under this Framework are guided by the Malaysia Aviation Decarbonisation Blueprint[20]:

Eligible Green Project Category	Eligible Criteria	Alignment with UN SDGs
Energy Efficiency Sustainability Benefits: Climate Change Mitigation	Initiatives, projects, technologies, products, or hardware systems dedicated to reducing energy consumption and GHG emissions, including power saving features, machine learning and artificial intelligence applications, such as, but not limited to: ▪ Air Traffic Management (ATM) systems improvement and automation for better efficiency, such as for: o improved aircraft turnaround, such as with Airport Collaborative Decision Making (A-CDM) and digital technologies, upgrades to Controller Pilot Data Link Communications (CPDLC) o flight profile optimization, such as with implementation of Continuous Climb Operations (CCO), Continuous Descent Operations (CDO), traffic planning precision, point merge system, trajectory-based operations (TBO) for optimization ▪ Substitution of aircraft Auxiliary Power Units (APUs) while aircrafts are stationary on the ground, such as with: o Ground Power Units (GPUs) o Preconditioned Air (PCA) Units ▪ Investment in Battery Energy Storage System (BESS) ▪ Energy efficient technologies, initiatives, products, or equipment for improvement of Building Energy Intensity (BEI) for airport buildings, such as: o airport asset replacements (such as assets which are energy efficient-labelled, or which result in reduced energy consumption by at least 15%), including airfield ground lighting, baggage screening machines, people movers, passenger boarding bridges o building management systems, light emitting diode (LED) lighting, smart meters, energy-efficient Heating, Ventilation, and Air Conditioning (HVAC) systems, automation of control system	
Renewable Energy Sustainability Benefits: Climate Change Mitigation	Design, construction, installation, operation, mobilisation and interfacing of renewable energy infrastructures and technology powered by solar, green hydrogen, and other renewable energy related infrastructure/ investments, such as, but not limited to: ▪ Solar powered projects, such as aeropolis solar park, solar rooftops and Building Integrated Photovoltaics (BIPV), solar farms, ground mounted solar, including self-consumption (SELCO) systems	

[20] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20BI%20FA.pdf

	▪ Projects to produce, liquefy, and distribute green hydrogen produced by electrolysis and powered by renewables ▪ Renewable energy investments, including but not limited to purchase of Renewable Energy Certificates (RECs) recognized by national and international standards/ organisations, such as through the Corporate Renewable Energy Supply Scheme (CRESS)	
Clean Transportation Sustainability Benefits: Climate Change Mitigation; Pollution Prevention and Control	Green (non-fossil fuel) mobility investments, infrastructures and maintenance such as, but not limited to: ▪ Airport fuel infrastructure modifications for the handling of pure supply (100%) of Sustainable Aviation Fuel (SAF) ▪ Electric vehicles, green-hydrogen powered vehicles, including for airside vehicle fleets and passenger shuttle vehicles ▪ Electric Ground Support Equipment (e-GSEs) across: o aircraft handling equipment (including electric ground power units, electric baggage tow units) o passenger handling equipment o aircraft servicing equipment ▪ Ground Support Equipment for aircraft with zero tailpipe CO2 emissions, such as: o aircraft servicing equipment o maintenance and safety equipment ▪ Zero-tailpipe emission taxiing equipment for assisted taxiing of aircrafts to reduce aircraft fuel burn and carbon emissions during ground movement ▪ Installation of charging facilities for electric vehicles (EV)/aircrafts, and refuelling facilities for alternative fuel vehicles including green hydrogen powered vehicles/aircrafts ▪ Infrastructure to support electric aircraft, including electric vertical take-off and landing (eVTOL) ports, and upgrades to the existing power grid	
Green Building Sustainability Benefits: Climate Change Mitigation; Natural Resource Conservation	Acquisition, construction, development, extension, or retrofit of existing, ongoing, and future buildings, terminals/ facilities with green building certification[21], that meet the following criteria: ▪ Leadership in Energy and Environmental Design (LEED) (Gold and above) ▪ Green Building Index (GBI) (Gold and above) ▪ Building Research Establishment Environmental Assessment Method (BREEAM) (Excellent and above) ▪ GreenRE (Gold and above) ▪ Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB) (Gold and above)	

[21] For the avoidance of doubt buildings awarded with a provisional green building certification, shall also be deemed as a Green Building, subject to the MAHB providing the corresponding final certification (proving the actual achievement) within a timely manner, once available.

	▪ Turkish Green Building Council (ÇEDBİK) certified (Very Good or above) ▪ Any other green building certifications that is equivalent to the above standards ▪ Buildings rated B11 or above in terms of energy performance in the local Turkish context, as determined via Energy Performance Certificate (BEP-TR) issued in accordance with Turkish regulation and/ or via the Turkish Building Code ▪ Refurbishment/ retrofit of airports buildings to achieve: o a 30% improvement in energy efficiency, emissions savings; OR o primary energy demand (PED) over initial performance; OR o has an Energy Performance Certificate (EPC) of at least A	
Terrestrial and Aquatic Biodiversity Conservation Sustainability Benefits: Biodiversity; Natural Resource Conservation	Protection, conservation and restoration of terrestrial and aquatic ecosystems, such as for enhancing management of protected areas, conservation of natural streams, protection of endangered species, and management of invasive species, via: ▪ Collaboration with local government, business sectors, non-government organisations or research institutions to conduct biodiversity research studies, mapping, and conservation, such as through bird profiling studies and wildlife hazard management studies ▪ Habitat protection and restoration activities/ programs[22] such as which target enhanced management of protected areas, conservation of natural streams, protection of endangered species, and management of invasive species	
Sustainable Water and Wastewater Management Sustainability Benefits: Pollution Prevention and Control	Sustainable infrastructure for efficient water usage and wastewater management, such as: ▪ Water Recycling Systems ▪ Rainwater harvesting and reuse ▪ Water efficient fixtures and fittings, such as fittings which have a 3-star Water Efficiency Product Labelling Scheme (WEPLS) by Suruhanjaya Perkhidmatan Air Negara	
Pollution Prevention and Control Sustainability Benefits: Pollution Prevention and Control	Projects, assets, installations, and technologies relating to the prevention, reduction, or elimination of pollution, including the mitigation of GHG emissions, such as: ▪ Waste Management Facilities that improve waste prevention, waste reduction/ waste minimization, waste filtering and waste management, and promote reduction, reuse, and recycling of waste	

[22] Where relevant, prior to undertaking such projects, environmental and social impacts assessments will be carried out to understand the feasibility of such measures and if they are required.

	▪ Carbon capture, utilization and storage (CCUS) systems related to nature-based and/ or technological solutions ▪ Direct air capture (DAC) installations ▪ Replacement of fluorine-based firefighting foam with bio-based materials	
Environmentally Sustainable Natural Resources Use Sustainability Benefits: Biodiversity; Natural Resource Conservation	Sustainable agriculture practices, such as: ▪ Integrated pest management ▪ Regenerative agricultural practices ▪ Procurement costs for third party sustainability certification for crops, such as under the following schemes: o Roundtable on Sustainable Palm Oil (RSPO) o International Sustainability and Carbon Certification (ISCC) o Malaysian Sustainable Palm Oil (MSPO) o Malaysian Good Agricultural Practice (myGAP) ▪ Natural carbon sequestration projects, such as habitat restoration, conservation of habitats, and afforestation or reforestation. Where relevant, only tree species that are well-adapted to the local site conditions shall be planted, and the above activities will also have a sustainable management plan with relevant certifications such as the: o Forest Stewardship Council (FSC) o Programme for the Endorsement of Forest Certification (PEFC) o Malaysian Timber Certification Scheme (MTCS) ▪ Purchase of carbon credits for the offset of own emissions, such as under the following schemes: o Verified Carbon Standard (VCS) o Gold Standard for the Global Goals o American Carbon Registry Standard (ACR) o Climate Action Reserve (CAR) Standard o Plan Vivo	
Climate Change Adaptation Sustainability Benefits: Climate Change Adaptation	Investments and expenditures beyond business-as-usual renovations and retrofits, relating to the adaptation of airport buildings to the impacts of climate change identified as a result of vulnerability assessments undertaken including infrastructure and ecosystem resilience, such as: ▪ Mitigation against weather risks, undertaken as part of a formal climate adaptation plan, including against flood and haze	

4.1.2 Eligible Social Projects

Eligible Social Project Category	Target Population	Eligible Criteria	Alignment with UN SDGs
Socioeconomic advancement and empowerment	Marginalised/ underprivileged communities[23]	Programs and projects that: ▪ Improve access to education, such as through educational aid (e.g. under the umbrella of Malaysia Airports' #MYairportCARES programme for students in need) and through provision of scholarships (e.g. under the Malaysia Airports Educational Scholarship Programme)	
	Mobility disadvantaged[24] Women with infants and children	▪ Improve social inclusion for the disadvantaged such as through development/ refurbishment/ maintenance of: o accessibility and barrier-free infrastructure and facilities for mobility disadvantaged population o baby care and breast-feeding rooms for women	
	Victims of humanitarian crises	▪ Provide humanitarian relief efforts to alleviate the suffering of communities devastated by humanitarian crises	
	Micro (MSME) and Small and Medium Enterprise (SME)[25]	▪ Promote entrepreneurship and business growth for MSME and SME, leading to macroeconomic empowerment to stakeholders within the Malaysia Airports ecosystem.	
Employment Generation	Marginalised/ underprivileged communities[22]	Programmes and projects such as those carried out within the radius of airports, that promote employment generation opportunities to unemployed[26] members from marginalised/ underprivileged communities, such as with: ▪ Employment programmes such as through the MySTEP program introduced by the Malaysian Government for fresh graduates	

[23] This is for the low-income population, unemployed, underserved or disadvantaged groups (which are as defined by Low income B40). Low income populations are defined as the B40 income population. The Household Income and Expenditure Survey and Basic Amenities 2022 defines the B40 population as the bottom 40% household income group. The monthly income of the B40 population is less than MYR 4,850 in 2019 and less than MYR 5,250 in 2022 per the latest government definition, and as it is updated from time to time.

[24] This includes individuals with disabilities, families with children and elderly.

[25] SME and MSME definition is as defined by the SME Corp. Malaysia and as it is updated from time to time.

[26] Unemployed is defined as those actively unemployed who did not work during the reference week but were interested to work and seeking for a job. Classified into two groups which are actively and is inactively unemployed per definition from Department of Statistic, Malaysia, and as it is updated from time to time. Actively unemployed: Persons who were available for work and were actively looking for work during the reference week.

4.1.3 Exclusion List for Green and Social Projects

Malaysia Airports' Utilisation of Proceeds for Green and Social Projects shall be excluded from financing projects or activities related to the following industries below (Green and Social Project Exclusion List), and as aligned with the ACMF's ASEAN GBS (e.g. fossil fuel generations projects), and ACMF's ASEAN SBS (e.g., activities that pose a negative social impact related to alcohol, gambling tobacco and weaponry):

i. Luxury sectors (precious metals/ precious minerals/ artworks and antiques wholesale or brokerage);
ii. Child labour or forced labour;
iii. Gambling;
iv. Adult entertainment;
v. Weapons and military contracting;
vi. Alcohol;
vii. Tobacco;
viii. Fossil-fuel generation related activities (including extraction, exploration, production, power generation or transport of fossil fuels); and
ix. Production or trade in any product or activity deemed illegal under international conventions and agreements, or subject to international bans.

The exclusion list also aligns with Responsible Investment policies and Sustainable Investment policies guided by the UN Principles for Responsible Investment (UN PRI), as adopted by Malaysia Airports' stakeholders.

4.1.4 Eligible Transition Projects

Where applicable, Malaysia Airports' Eligible Transition Projects under this Framework is guided by the Amber Tiers (i.e. Tier 2 (T2) and Tier 3 (T3)) of the ASEAN Taxonomy for Sustainable Finance Version 3, 51[001] Airport infrastructure, including low-carbon assets and facilities[27], and Malaysia Aviation Decarbonisation Blueprint[28]:

Eligible Transition Project Category	Eligibility Criteria	Alignment with UN SDGs
Low Carbon Aviation Infrastructure	Infrastructure to accommodate supply of alternative low carbon aviation fuels, as part of the aviation sector's transition away from fossil fuels. Low carbon aviation fuels include: ▪ Sustainable Aviation Fuel blends (of less than 100%)[29] ▪ Blue hydrogen (with at least 60% reduction in carbon intensity thresholds compared to fossil fuel processes) produced under steam reforming process using natural gas/ biogas with carbon capture and storage ▪ Turquoise hydrogen (with at least 60% reduction in carbon intensity thresholds compared to fossil fuel processes) produced through pyrolysis of methane ▪ Renewable diesel/ biodiesel blends (of higher than 5% blends), with lifecycle GHG emissions of at least 50% lower than the fossil fuel baseline and produced from: o non-waste feedstock sourced from certified crops, such as under the following schemes: • Roundtable on Sustainable Palm Oil (RSPO) • International Sustainability and Carbon Certification (ISCC) • Malaysian Sustainable Palm Oil (MSPO) • Bonsucro • Round Table on Responsible Soy Association (RTRS) o biofuel feedstock: • for which production does not occur on land with high biodiversity value within the last 10–15 years; AND • for which no land with a high carbon stock has been converted for the biofuel feedstock production; AND • where a food security impact assessment (FSIA) is conducted to demonstrate there is no competition with food and feed production o waste feedstock including forestry and agriculture residues such as wood chips, sawdust straw, cane trash, palm kernel shells or palm oil mill effluent (POME), such as:	

[27] References: https://asean.org/book/asean-taxonomy-for-sustainable-finance-version-3/
[28] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20BI%20FA.pdf
[29] Airport fuel infrastructure modifications for the handling of pure supply (100%) of Sustainable Aviation Fuel (SAF) is included under the Eligible Green Project Category: Clean Transportation in Section 4.1.1.

- Roundtable on Sustainable Biomaterials (RSB)-, RSPO-, or MSPO-certified palm oil operations
- wastewater and sewage sludge
- sustainably sourced used cooking oil

Low carbon aviation infrastructure for the low carbon aviation fuels as defined above, includes:

- Infrastructure for hydrogen, such as for:
  - storage and transport/ distribution/ refuelling
  - construction and development of production facilities (excluding operational expenditures)
  - aircraft servicing equipment (including automatic refuellers, fuel hydrant systems that reduce the need for fuel trucks and the emissions they generate)

- Supporting infrastructure to facilitate procurement or purchase of renewable diesel and biodiesel such as for:
  - storage and transport/ distribution/ refuelling
  - construction and development of production facilities (excluding operational expenditures)

- Carbon capture, utilization and storage (CCUS) systems such as to be placed at SAF refineries[30] which are built/ located at airports

For avoidance of doubt, the low carbon aviation infrastructure will not be dedicated to the transport or storage of fossil fuels.

[30] Applicable SAF refineries for purposes of CCUS installation, will meet the set thresholds for renewable diesel/ biodiesel blends as defined within Section 4.1.4 above.

4.2 Project Evaluation and Selection

Malaysia Airports has established processes and procedures to ensure that projects are properly identified and assessed in compliance with this Framework. Malaysia Airports' Sustainability Working Committee with guidance from Malaysia Airports' Board EHSOR Committee and Malaysia Airports Board will review, evaluate, and advise on sustainability initiatives in alignment with Malaysia Airports' broader strategy. Malaysia Airports' Sustainability Working Committee consists of representatives across Malaysia Airports subsidiaries and business divisions supported by Malaysia Airports' Sustainability Department. In respect to this Framework, the Sustainability Working Committee is responsible for:

- Overseeing the Framework implementation and allocation process including reviewing and approving allocation;
- Reviewing, selecting, validating and monitoring the pool of Eligible GSS and Transition Projects, based on the categories and criteria as specified in Framework, which is in alignment with Malaysia Airports' sustainability strategy;
- Reviewing and approving any proposed updates to this Framework, to reflect any changes on Malaysia Airports' sustainability strategies and initiatives and in the event that projects no longer meet the eligibility criteria[31];
- Reviewing and validating the relevant reports, including the Allocation and Impact Reports (as described in Section 4.4 below) for the annual reporting;
- Monitoring the ongoing evolution related to the sustainable finance markets in terms of disclosure and reporting to be in line with market best practices e.g., appointment of an independent auditor to provide an annual assurance report, to extent where feasible; and
- Monitoring ESG controversies[32] associated to the projects.

Eligibility Criteria include a set of both exclusion criteria and selection of environmental and social criteria which the Eligible Green and Social Project must meet to be financed or refinanced by SFTs.

To address the relevant environmental and social risks associated with the Eligible Categories, the Group has developed comprehensive policies, focusing on sustainability, environment, social, and governance (which cover energy, environmental management, occupational health and safety, and more), and will undertake necessary processes to identify and manage any potential risks. In relation to the Eligible Projects, Malaysia Airports has complied and will comply with the relevant environmental, social and governance standards or recognised best practices.

The **step-by-step process** for evaluation and selection of eligible project uses internal expertise as follows:

1. The Sustainability Working Committee will assess and identify projects that satisfy the Eligible Green, Social and Transition Projects criteria set forth in the **"Use of Proceeds"** section and in accordance with Malaysia Airports' sustainability

[31] Following divestment, liquidation, technology switch, concerns regarding alignment of underlying activity with eligibility criteria etc.
[32] Examples include data privacy and security, product governance and business ethics

objectives and strategies including assessment of the project's environmental and social risks.

2. The Sustainability Working Committee members include representatives from across the Malaysia Airports subsidiaries and business divisions, such as:
   - Finance Department
   - Sustainability Department
   - Corporate Planning Department
   - Corporate Quality Management Department
   - Engineering Strategic Division
   - Malaysia Airports Sepang Sdn Bhd (MA Sepang)
   - Malaysia Airports Sdn Bhd (MASB)
   - KL Airport Hotel Sdn Bhd
   - KLIA Aeropolis Sdn Bhd

3. On a bi-annual basis, and before any new finance is raised, the Sustainability Working Committee will review the assets/ projects included in the pool of Eligible GSS and Transition Projects and confirm that they meet the criteria for inclusion.

4. In case of divestment or an Eligible Project no longer meets the eligibility criteria, the proceeds will be allocated to other Eligible Projects as soon as practicable.

Malaysia Airports' Sustainability Working Committee with approval from the Board EHSOR Committee will be responsible for managing any future updates of the Framework, including any expansion of the Eligibility Criteria under the use of proceeds. Any changes to the Framework will be published on Malaysia Airports' website: https://www.malaysiaairports.com.my/en/sustainability.

4.3 Management of Proceeds

The proceeds from each SFTs will be deposited in the general funding account and be earmarked to Eligible Projects. To ensure that net proceeds from SFTs are appropriately tracked and allocated, Malaysia Airports will maintain a register of Eligible Projects managed by Malaysia Airports' Finance Department which will outline the following information:

i. Type of Funding Transaction
   - Key information including, issuer/ borrower entity, transaction date, tranche(s) information, principal amount of proceeds, repayment or amortisation profile, maturity date, and interest or coupon (and in the case of bonds, the ISIN number)

ii. Allocation of Use of Proceeds Information including:
   - Name and description of Eligible Projects to which the proceeds of the SFTs have been allocated in accordance with this Framework
   - Amount of SFT proceeds allocated to each project
   - The remaining balance of unallocated proceeds
   - Other relevant information such as information of temporary investment for unallocated proceeds

Malaysia Airports' internal records will show the allocation of the net proceeds of the relevant offering to Eligible Projects as long as the offering remains outstanding. Any balance of issuance proceeds which is not yet allocated to Eligible Projects will be held in accordance with Malaysia Airports' treasury policy.

In case of asset divestment or cancellation of a project, Malaysia Airports will reallocate proceeds to finance other Eligible Projects, compliant with the current Framework, as soon as practicable. Malaysia Airports will aim to fully allocate the proceeds of any Use of Proceeds Financing instruments issuance within 36 months.

The process for management of proceeds for Use of Proceeds Financing instruments will also be disclosed to investors within the issuance documentation.

4.4 Reporting

On an annual basis, at least until full allocation or in case of material changes, Malaysia Airports will provide the following reporting on its SFT(s) to the extent feasible, within its website at: https://www.malaysiaairports.com.my/en/sustainability

In the **Allocation Report**, Malaysia Airports will include:

i. The amount issued and outstanding for the SFTs;
ii. The total value of Eligible Projects;
iii. A description of the portfolio of Eligible Projects including a breakdown of the allocated amounts by ICMA/ LMA/ LSTA/ APLMA categories where appropriate;
iv. The amount and/ or percentage of new and existing projects (share of financing and refinancing); and
v. Any further information on how unallocated proceeds have been held.

The **Impact Report** will provide qualitative and quantitative performance measures and examples associated with each category of Eligible Projects. Impact reporting may include, but are not limited to:

Eligible Green Project Type	Example of Impact Metrics
Energy Efficiency	▪ Energy saved per year (kWh/year) ▪ Annual GHG emissions reduced/avoided (tCO2e)
Renewable Energy	▪ Installed renewable energy capacity (MW) ▪ kWh of power generated from renewable energy ▪ Tonnes of carbon dioxide (CO2) equivalent avoided
Clean Transportation	▪ Number of electric vehicles/ charging stations built/ procured ▪ Annual GHG emissions reduced/avoided (tCO2e)
Green Building	▪ Number of Green Buildings (per certification system) and the level/ rating achieved ▪ Carbon intensity (in kgCO2e/ sqm/ yr) ▪ Energy intensity (in kWh/ sqm/ yr)
Terrestrial and Aquatic Biodiversity Conservation	▪ Net change in area of habitat protected or restored, in hectares ▪ Number of species protected, or their habitats restored or enhanced
Sustainable Water & Waste Water Management	▪ Annual water savings in m^3/a and/ or in % ▪ Annual waste minimised, reused, recycled in % of total waste and/ or in tonnes
Pollution Prevention and Control	▪ Volume of air/ water pollutants prevented, avoided, or reduced as a result of the project in tonnes or any other relevant unit ▪ Volume of hazardous waste generated and treated as a result of the project in tonnes or any other relevant unit ▪ Annual absolute (gross) amount of waste that is separated and/ or collected, and treated (including composted) or disposed of (in tonnes p.a. and in % of total waste)

Environmentally Sustainable Natural Resources Use	▪ Farmland under soil conservation/ regenerative agricultural practices, (ha and % of acreage farmed) ▪ Increase in area under certified organic or sustainable agriculture (ha and % of acreage farmed)

Eligible Social Project Type	Example of Impact Metrics
Socioeconomic Advancement and Empowerment	▪ Number of beneficiaries ▪ Number of facilities for the mobility disadvantaged installed ▪ Number of scholarships disbursed
Access to Essential Services	▪ Number of rural community residents benefitting from increased access to basic necessities in areas otherwise inaccessible by road
Employment Generation	▪ Number of people with upskilled employment resulting from training ▪ Number of people trained in new vocational skills

Eligible Transition Project Type	Example of Impact Metrics
Low Carbon Aviation Infrastructure	▪ Annual GHG emissions reduced/ avoided in tonnes of CO2 equivalent ▪ Increase in volume of low carbon aviation fuel

The allocation and impact reporting will be disclosed annually, with the methodology of the indicators above where relevant and feasible. Such information will be provided on an annual basis until all the net proceeds have been allocated.

Any material developments, such as modification of the Framework, will also be reported in a timely manner on Malaysia Airports' website.

4.5 External Review

4.5.1 Pre-Issuance Review

Malaysia Airports will obtain an independent Second Party Opinion (SPO) from an external reviewer with recognised expertise, on the Sustainable Finance Framework indicating alignment to the components of the ICMA's GBP, SBP, and SBG, LMA's GLP and SLP, ACMF's GSS Bond Standards and SC's SRI Sukuk Framework. In addition, the Second Party Opinion on Malaysia Airports' Sustainable Finance Framework will also include reference to the alignment with ICMA's Climate Transition Finance Handbook and to the alignment with Malaysia Airports' overall sustainability strategy. This opinion will be available on Malaysia Airports' website: https://www.malaysiaairports.com.my/en/sustainability.

4.5.2 Post-Issuance Review

External verification of the tracking of the SFT proceeds may be provided by an independent third party appointed by Malaysia Airports. The verification will include an opinion on all allocation and impact reports produced in line with Section 4.4, and management of proceeds to verify the Group's internal tracking method. This review, if undertaken, will be made available on Malaysia Airports' website: https://www.malaysiaairports.com.my/en/sustainability.

5 MALAYSIA AIRPORTS' FRAMEWORK FOR SUSTAINABILITY-LINKED FINANCING

Sustainability-Linked financing instruments are any type of financial instruments for which the financial and/ or structural characteristics can vary depending on whether the issuer achieves predefined sustainability/ ESG objectives. These objectives are (i) measured through predefined Key Performance indicators (KPIs) as defined in Section 5.1 and (ii) assessed against predefined Sustainability Performance Targets (SPTs) as defined in Section 5.2.

This Framework for Sustainability-Linked financing instruments adopts the principles and/ or guidelines as follows:

- Sustainability-Linked Bond Principles (SLBP) 2024 issued by ICMA;
- ASEAN Sustainability-Linked Bond Standards (SLBS) 2022 issued by ACMF;
- SRI-Linked Sukuk Framework 2022 issued by SC; and
- Sustainability-Linked Loan Principles (SLLP) 2025 issued by LMA, APLMA, and LSTA.

Malaysia Airports' Framework for Sustainability-Linked financing instruments is based upon the five core components of the above-mentioned market guidelines, principles, and standards:

1. Selection of Key Performance Indicators (KPIs);
2. Calibration of Sustainability Performance Targets (SPTs);
3. Financial Characteristics;
4. Reporting; and
5. Verification.

5.1 Selection of Key Performance Indicators (KPIs)

Malaysia Airports has selected the following three KPIs, which are core, relevant, and material to Malaysia Airports' business and measure the sustainability improvements of the Group.

5.1.1 KPI #1: Scope 1 and Scope 2 GHG emissions

Definition

Absolute Scope 1 and Scope 2 Greenhouse Gas (GHG) emissions, which constitute all the GHG emissions across Malaysia Airports' operational activities, expressed in tonnes of CO2 equivalent (tCO2e).

The KPI covers absolute GHG emissions coming from:

i. Scope 1: Emissions from airport-controlled sources, which may include:
   - Vehicles/ GSEs belonging to the airport;
   - On-site waste management;
   - On-site wastewater management;
   - On-site power generation;
   - Firefighting exercises;
   - Boilers and furnaces;
   - De-icing substances; and/ or
   - Refrigerants and refrigerant losses.

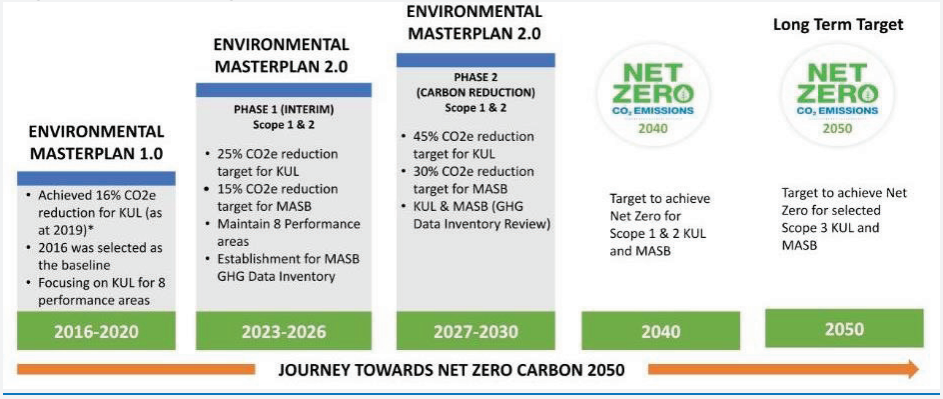
ii. Scope 2: Emissions from purchased electricity for own use, which may include:
   - Off-site electricity generation.

The list of possible emissions sources is not exhaustive. Furthermore, as the operational structure of every airport is different, not all emissions sources identified are present at every airport.

This KPI applies to the absolute GHG emissions coming from:

i. KL International Airport (KUL), which includes:
   - KUL Terminal 1;
   - KUL Terminal 2; and

ii. Malaysia Airports Sdn Bhd (MASB), which manages the international and domestic airports of the Group in Malaysia, other than KUL, as follows:
   - International Airports
     - Kota Kinabalu International Airport (BKI);
     - Kuching International Airport (KCH);
     - Langkawi International Airport (LGK); and
     - Penang International Airport (PEN).
   - Domestic Airports
     - Melaka Airport (MKZ);
     - Sultan Abdul Aziz Shah Airport, Subang (SZB);
     - Sultan Abdul Halim Airport, Alor Setar (AOR);
     - Sultan Ahmad Shah Airport, Kuantan (KUA);
     - Sultan Azlan Shah Airport, Ipoh (IPH);
     - Sultan Ismail Petra Airport, Kota Bharu (KBR);
     - Sultan Mahmud Airport, Kuala Terengganu (TGG);
     - Bintulu Airport (BTU);
     - Limbang Airport (LMN);

	○ Miri Airport (MYY); ○ Mukah Airport (MKM); ○ Mulu Airport (MZV); ○ Sibu Airport (SBW); ○ Labuan Airport (LBU); ○ Lahad Datu Airport (LDU); ○ Sandakan Airport (SDK); and ○ Tawau Airport (TWU).
Calculation methodology and benchmark reference	Absolute Scope 1 and Scope 2 GHG emissions may be calculated according to the GHG Protocol, ISO 14064-1, Airports Council International (ACI)'s Airport Carbon and Emissions Reporting Tool or an appropriate combination of these methodologies[33]. Malaysia Airports may use different tools and emissions factors that are deemed best suited to its operations. Malaysia Airports' emissions footprint covers a 12-month period and is a key component of its Airport Carbon Accreditation (ACA) certification by ACI.
Rationale	Malaysia Airports is committed to reducing its absolute Scope 1 and Scope 2 emissions in a phased and systematic manner towards achieving Malaysia Airports' Net Zero goal for Scope 1 and Scope 2 GHG emissions for KUL and MASB by 2040. Malaysia Airports' use of absolute emissions metric for this KPI, instead of an intensity-based emissions metric, underscores its commitment to achieving genuine absolute reductions in emissions, irrespective of changes in Malaysia Airports' operational activities or business growth. Malaysia Airports is committed to demonstrating tangible and consistent progress to reducing its emissions, in line with its Net Zero ambition.  Malaysia Airports has underscored its commitment towards building a sustainable business by launching the Group's journey towards Net Zero Carbon Emissions by 2050. This commitment is supported by the Group's EMP 2.0, which outlines the progression of the Group over a long-term roadmap towards a Net Zero carbon future. Malaysia Airports' Net Zero ambition is in line with Malaysia's long-term pledge to become a Net Zero emissions nation by 2050. The Scope 1 and Scope 2 GHG emissions targets are only applicable to Malaysia Airports' KUL and MASB operations, in line with its identified focus for

[33] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2023/08/Short-Guide-to-Airport-Carbon-Accreditation-November-2020.pdf

	Phase 1 of its journey towards Net Zero emissions (which covers the period from 2023 – 2026). Malaysia Airports is currently reviewing its decarbonisation strategy to expand its GHG emissions inventory to the rest of the businesses under Malaysia Airports. As at 31 December 2023[34], in terms of revenue generation, KUL and MASB contributed 50.3% of revenue to Malaysia Airports. Other contributors to its revenue are the operations of Istanbul Sabiha Gökçen International Airport (SAW) and non-airport operations such as hotels, agriculture and horticulture, and project and repair maintenance.
Relevant UN SDGs	

[34] MAHB Annual Report 2023, Malaysia Airports (Sepang) Sdn Bhd 2023 Audited Account, Malaysia Airports Sdn Bhd 2023 Audited Account

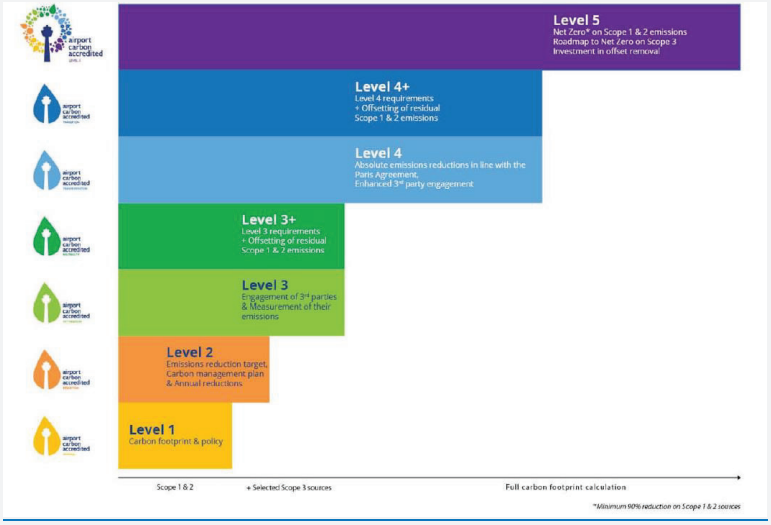
5.1.2 KPI #2: Proportion of renewable energy used against total energy consumption

Definition	Proportion of renewable energy used (in kWh) out of total energy consumption (in kWh), expressed in percentage value (%). The KPI covers Malaysia Airports' own energy consumption at: i. KUL; and ii. MASB. For the avoidance of doubt, the KPI excludes the energy consumption by airport tenants and third-party vendors. As the operational structure of every airport is different, the sources of energy consumption at each airport may vary and not all sources of energy consumption are present at every airport. Renewable energy is defined in accordance with the International Renewable Energy Agency's (IRENA) definition as follows: renewable energy means all forms of energy produced from renewable sources in a sustainable manner, which include, inter alia: ▪ Bioenergy; ▪ Geothermal energy; ▪ Hydropower; ▪ Ocean energy, including inter alia tidal, wave and ocean thermal energy; ▪ Solar energy, and ▪ Wind energy[35]. This definition includes (but is not limited to) the following sourcing/ delivery models: ▪ On-site self-consumption (SELCO) installations; ▪ Off-site SELCO installations; ▪ Green electricity tariffs, such as Tenaga Nasional Berhad's (TNB) Green Electricity Tariff (GET) Programme[36]; ▪ Renewable energy supply schemes, such as the Ministry of Energy Transition and Water Transformation's (PETRA) Corporate Renewable Energy Supply Scheme (CRESS)[37]; ▪ Green power purchase agreements; and/ or ▪ Renewable energy certificates recognized by national and international standards/ organisations. The list of sourcing/ delivery models is not exhaustive. Malaysia Airports is committed to exploring and adopting new approaches and technologies that align with its decarbonisation strategy and strategic business objectives.
Calculation methodology and	The KPI is calculated using the following formula: $$\frac{Total\ energy\ used\ from\ renewable\ sources\ (kWh)}{Total\ own\ energy\ consumption\ (kWh)} * 100\%$$

[35] References: https://assets.publishing.service.gov.uk/media/5a7c276b40f0b645ba3c708a/8242.pdf
[36] References: https://www.mytnb.com.my/business/special-schemes/greenelectricitytariff
[37] The Corporate Renewable Energy Supply Scheme was introduced by PETRA in 2024 as a platform to facilitate corporate sourcing of renewable energy directly from developers through an open grid access system to Peninsular Malaysia Electricity Supply Network.

benchmark reference	The numerator is derived from aggregating the total energy used from renewable energy sources in a 12-month period. The denominator is derived from aggregating the total own energy consumption from both renewable and non-renewable sources in the same 12-month period.
Rationale	Increasing the use of renewable energy against total own energy consumption translates to emissions reduction across Scope 1 and Scope 2 emissions, which are material to Malaysia Airports' operations. Malaysia Airports is currently navigating Phase 1 of its net zero emissions strategy, running from 2023 to 2026, with a core focus on cutting Scope 1 and Scope 2 emissions. Under Malaysia Airports' EMP 2.0, Malaysia Airports is committed to increasing the adoption of renewable energy, primarily solar, by installing photovoltaic solar panels on the rooftops of airport terminals and other buildings. Malaysia Airports will rapidly increase its use of renewable energy across its operations including converting available land within the vicinity of KUL to house a solar farm. Beyond the focus on renewable energy, Malaysia Airports also seeks to improve energy efficiency of its operations, focusing on optimising cooling and lighting. Energy efficiency initiatives allow Malaysia Airports to optimise energy consumption and improve operational excellence, which directly translate to emissions reduction and energy cost savings. In line with its Net Zero ambition for Scope 1 and Scope 2 GHG emissions by 2040 for KUL and MASB, Malaysia Airports will continue undertaking infrastructure and asset enhancement for energy efficiency, investing in renewable energy solutions, as well as pursuing strategic collaboration to ramp up its renewable energy generation. Moving forward, Malaysia Airports intend to scale up its airside and landside electrification initiatives, which will play a key role in reducing Malaysia Airports' Scope 3 emissions from several categories, including passenger surface access (i.e., passenger cars, ride hailing, taxis, buses, rail, and motorbikes) and airside vehicles. As part of Malaysia Airports' sustainability strategy and initiatives in 2025, Malaysia Airports has identified the electrification of ground fleet at airports as one of the strategic priorities under Strategic Pillar 5: Net Zero Airport Operations. With increased electrification across airside and landside, Malaysia Airports' efforts to increase renewable energy generation would ensure the electricity consumed is from clean energy sources.
Relevant UN SDGs	

5.1.3 KPI #3: Airport Carbon Accreditation (ACA) level

Definition	Airport Carbon Accreditation (ACA) is an airport-specific, global carbon management certification programme, based on internationally recognised methodologies. It is the only voluntary, institutionally endorsed global carbon management standards for airports. The ACA programme independently assesses and recognises the efforts of airports to manage and reduce their carbon emissions through seven levels of certification[38]: i. Level 1 (Mapping); ii. Level 2 (Reduction); iii. Level 3 (Optimisation); iv. Level 3+ (Neutrality); v. Level 4 (Transformation); vi. Level 4+ (Transition); and vii. Level 5. Through the different levels of certification, ACA acknowledges that airports are at different stages in their journey towards comprehensive carbon management. The KPI applies to: i. KUL. The ACA programme is site-specific, taking into account national or local legal requirements while providing a common framework for active carbon management based on internationally recognised methodologies.
Calculation methodology and benchmark reference	ACI EUROPE has the overall responsibility for ACA and manages it in close cooperation with the other ACI regions and support by ACI World. The main requirements of the programme at each accreditation level are as follows[39]: 

[38] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2023/08/Short-Guide-to-Airport-Carbon-Accreditation-November-2020.pdf
[39] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2023/12/ACA-Application-Manual-FINAL-EM.pdf

	The Airport Carbon Accreditation Application Manual (Issue 14) provides comprehensive information for airports planning to become accredited at one of the ACA levels or to renew/ upgrade their accreditation.
Rationale	Malaysia Airports has participated in the ACA programme since 2015 in its efforts to transition towards a sustainable, low-carbon future. Participating in the ACA programme has enabled Malaysia Airports to implement best practices in carbon management and achieve emissions reductions at the airports it manages. Each level of accreditation has its own suite of requirements across various program elements, ensuring a holistic approach to airport decarbonisation[40]: ▪ Policy statement; ▪ Carbon footprint; ▪ Target and implementation; ▪ Target trajectory; ▪ Target compliance; ▪ Carbon management; ▪ Stakeholder management; ▪ Neutrality; ▪ Renewal cycle; and ▪ Approved verifiers. Furthermore, ACA requires independent third-party verification, which provides confidence that Malaysia Airports' reported information, statements, and plans as part of the accreditation process represent a faithful, true, and fair account of its decarbonisation efforts. Malaysia Airports aims to strengthen its participation in the ACA programme, starting with the pursuit of the ACA Level 4 certification for KUL. As at 31 December 2023[41], KUL contributed to 35.2% of the Group's total revenue and 71.6% of total energy consumption. Achieving ACA Level 4 for KUL requires Malaysia Airports to, among others, set out a policy commitment to absolute emissions reduction and formulate a long-term absolute carbon emissions reduction target that is aligned with the Intergovernmental Panel on Climate Change (IPPC) 1.5°C or 2°C pathways. The commitment and target must be backed by a Carbon Management Plan, that defines KUL's trajectory to achieve its carbon emissions reduction target and the actions it expects to implement to remain on that trajectory, as well as a Stakeholder Partnership Plan, that demonstrates KUL's efforts to drive third parties at the airport towards delivering emissions reduction themselves. Further to the mandatory ACA Level 4 requirements, Malaysia Airports also intends to undertake the voluntary ACA Level 4 recommendation of setting a Scope 3 emissions reduction target, as part of the ACA Level 4 emissions reduction target for KUL. The Scope 3 emissions reduction target will intend to meet the two additional requirements as recommended in the Airport Carbon Accreditation Application Manual (Issue 14)[42]:

[40] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2023/08/Short-Guide-to-Airport-Carbon-Accreditation-November-2020.pdf
[41] MAHB Annual Report 2023, Malaysia Airports (Sepang) Sdn Bhd 2023 Audited Account, Malaysia Airports Sdn Bhd 2023 Audited Account.
[42] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2023/12/ACA-Application-Manual-FINAL-EM.pdf

	i. The total Scope 3 emissions included in the target shall be significant – in this case defined as Landing and Take-Off (LTO) emissions or any other sources being greater than 10% of the total (Scope 1, 2 and 3, but excluding aircraft LTO and cruise) emissions; and ii. The airport operator shall demonstrate that it exercises significant influence over those Scope 3 emissions sources which are included. This shall be demonstrated by means of the airport's Carbon Management Plan which shall state which Scope 3 sources are included in the target, the third-party owner of those emissions and how the airport operator exercises influence over those emissions. To demonstrate its unwavering commitment to environmental excellence and leadership in building a greener aviation sector in Malaysia, Malaysia Airports is also seeking to expand its participation in the ACA programme to include all international airports in Malaysia by 2026, with the ultimate aim of bringing ACA to its entire airport network.
Relevant UN SDGs	

5.2 Calibration of Sustainability Performance Targets (SPTs)

5.2.1 SPT for KPI #1: Scope 1 and Scope 2 GHG emissions

SPTs	The following SPTs have been identified for KPI #1: ▪ SPT 1.1a: Reduce absolute Scope 1 and Scope 2 GHG emissions by 45% for KUL compared to a 2016 baseline, by 31/12/2030. ▪ SPT 1.1b: Reduce absolute Scope 1 and Scope 2 GHG emissions by 30% for MASB compared to a 2023 baseline, by 31/12/2030. ▪ SPT 1.2a: Reduce absolute Scope 1 and Scope 2 GHG emissions by 100% for KUL compared to a 2016 baseline, by 31/12/2040. ▪ SPT 1.2b: Reduce absolute Scope 1 and Scope 2 GHG emissions by 100% for MASB compared to a 2023 baseline, by 31/12/2040. Malaysia Airports' SPTs for Scope 1 and Scope 2 GHG emissions reduction are in line with the interim emissions reduction milestones for 2030 and 2040, and the 2050 long-term carbon goal, recommended by the ACI, as part of its Long-Term Carbon Goal Study for Airports[43]: ▪ By 2030, between 25% (2°C) and 45% (1.5°C) reduction; ▪ By 2040, between 48% (2°C) and 73% (1.5°C) reduction; and ▪ By 2050, between 70% (2°C) and 100% (1.5°C) reduction.
Baseline	For KUL, the baseline is 144,663 tCO2e in 2016. ▪ The 2016 baseline year for KUL has been selected in line with the sustainability strategy set since the establishment of Malaysia Airports' EMP 1.0, signalling Malaysia Airports' early commitment to its journey to Net Zero by 2050. For MASB, the baseline is 80,762 tCO2e in 2023. ▪ The 2023 baseline year for MASB has been selected as 2023 is the first year in which Malaysia Airports measured and reported MASB's Scope 1 and Scope 2 GHG emissions.
Historical performance	Based on Malaysia Airports' historical performance, the SPTs are deemed to be ambitious, and they support Malaysia Airports' ambition to achieve Net Zero for Scope 1 and Scope 2 GHG emissions for KUL and MASB by 2040. From 2016 to 2022, on average, Malaysia Airports has reduced its Scope 1 and Scope 2 GHG emissions by 6,633 tCO2e per year for KUL, representing an annual reduction of 4.59% from the baseline, all within the context of a COVID-19 lockdown and reduction of airport operations[44]. Achieving the SPTs identified requires a material improvement in Malaysia Airports' decarbonisation initiatives when compared to Malaysia Airports' historical performance, as shown below:

[43] References: https://store.aci.aero/product/long-term-carbon-goal-study-for-airports-report-2021/
[44] The latest audited carbon emissions data is available for KUL for FY2022. The data was verified by an independent assessment under the ACA programme. In FY2022, total Scope 1 and Scope 2 emissions for KUL amounted to 104,864 tCO2e.

SPT for KUL:

Metrics/ Observation Date	2016 (Baseline)	2019	2021	2022	2030	2040
SPT 1 for KUL (tCO2e)	144,663	118,616	66,490	104,864	79,548	0
% reduction from baseline	**N/A**	**18%**	**54%**	**27.5%**	**45%**	**100%**

Note:

- As guided by ACI, due to the impact of COVID-19, all 2020 data is to be excluded.
- Emissions recorded in 2021 also takes into account the impact of the COVID-19 pandemic and reduction of airport operations.

SPT for MASB:

Metrics/ Observation Date	2023 (Baseline)	2030	2040
SPT 1 for MASB (tCO2e)	80,762	56,533	0
% reduction from baseline	**N/A**	**30%**	**100%**

Action plan

In Phase 1 of Malaysia Airports' journey towards net zero emissions, Malaysia Airports has implemented the following initiatives to reduce absolute Scope 1 and Scope 2 GHG emissions:

- Purchase green energy where available;
- Install renewable energy equipment such as solar photovoltaic panels;
- Transition to low-carbon fuel for buildings and vehicles at airport;
- Install additional EV charging stations;
- Convert existing vehicles to EVs, including GSEs;
- Replace and upgrade existing lighting with energy efficient LED lights and Airfield Ground Lighting;
- Replace and upgrade existing assets including heating, ventilation and air-conditioning (HVAC) systems, air handling units (AHUs), and chillers;
- Introduce innovative solutions to improve energy performance such as Building Management Systems (BMS) and Smart Energy Solutions and Materials; and
- Promote behavioural change such as promoting sustainability awareness among tenants and customers through signage.

The Group's current and future initiatives to reduce absolute Scope 1 and Scope 2 GHG emissions will include the following:

- Ramping up energy efficiency initiatives;
- Expanding renewable energy capabilities, primarily solar power;
- Purchasing green electricity; and/ or
- Electrifying airside and landside areas.

These initiatives are aligned with the MADB's recommended decarbonisation measures for airport operators.

Further to the above, Malaysia Airports may utilise RECs and other similar mechanisms to supplement broader initiatives aiming at reducing absolute Scope 2 GHG emissions. For the avoidance of doubt, these instruments will be used solely in a supporting capacity, not as a primary means of decarbonising Malaysia Airports' Scope 2 emissions.

	Moving towards achieving its short, medium, and long-term targets for Net Zero Carbon Emissions by 2050, Malaysia Airports is refining its decarbonisation strategy and will be undergoing the appointment of sustainability experts and consultants to support the development of the Malaysia Airports decarbonisation roadmap in 2025.
Risks to the achievement of the SPTs	Key risks that may impact the achievement of the SPTs may include: ▪ Changes in government policy that diverge from the net zero plan might introduce new requirements that can disrupt the achievement of the targets. ▪ Financial constraints, such as lack of favourable financing options, high costs of capital, and significant capital expenditure requirements. ▪ Procurement challenges, such as limited availability of green electricity supply and supply chain challenges to deliver materials and labour needed for decarbonisation efforts. ▪ Implementation challenges, such as complex permitting processes, the need for significant infrastructure upgrades to allow for on-site renewable energy installation, and delayed project timelines. ▪ Data challenges, such as lack of robust data collection infrastructure and processes, which may lead to sub-optimal decision-making regarding decarbonisation efforts. ▪ Complexity of delivering interdependent net zero solutions and behaviours in capacity constrained airports with legacy infrastructure. The list of potential risks is not exhaustive. Furthermore, as the operational structure of every airport is different, not all risks identified are relevant for every airport.

5.2.2 SPT for KPI #2: Proportion of renewable energy used against total energy consumption

SPTs

The following SPT has been identified for KPI #2:

- SPT 2: Increase the proportion of renewable energy used against total energy consumption to 20% for KUL and MASB compared to a 2023 baseline, by 31/12/2030.

Baseline

For all the international and domestic airports identified under KUL and MASB, the combined baseline is 9.8% in 2023.

- The 2023 baseline year has been selected by Malaysia Airports as it is the latest available sustainability performance data at point of SPT setting.

Historical performance

For all the international and domestic airports identified under KUL and MASB, Malaysia Airports' historical performance in increasing the proportion of renewable energy used against total energy consumption is as follows:

Metrics/ Observation Date	2020	2021	2022	2023 (Baseline)	2030
SPT 2	6.8%	7.9%	7.6%	9.8%	20.0%

Further breakdown of the historical performance is as follows:

Metrics/ Observation Date	2020	2021	2022	2023 (Baseline)	2030
KUL	11.3%	12.7%	9.7%	9.6%	20.0%
MASB	-	0.8%	4.7%	10%	20%

Malaysia Airports has achieved an annual increase of between 1-2% in the proportion of renewable energy used against total energy consumption in its past 3 years' historical performance.

The 2030 target would therefore represent an ambitious target for Malaysia Airports as it would require, on average, an annual increase of 1.67% in the proportion of renewable energy used. Achieving this target would require significant effort from Malaysia Airports, with the goal of doubling its share of consumption of renewable energy from current consumption levels.

Given the rapidly growing Southeast Asian aviation market, Malaysia Airports is committed to ensuring the highest standards of airport operations and services at all airports it manages, which may include expanding its route networks to improve international connectivity, undertaking terminal expansion projects to accommodate the increasing number of passengers, and improving the operational efficiencies of its airport operations.

While these initiatives may lead to a sizeable increase in its total energy consumption, Malaysia Airports remains committed to achieving the SPT by ramping up efforts to scale renewable energy used at its international and domestic airports in Malaysia.

Action plan

In 2023, Malaysia Airports further expanded the solar power programme to achieve a total solar power capacity of 22.5 MWp.

The installation of solar photovoltaic panels at the rooftop and carpark buildings of KUL Terminal 1 combined with the existing solar power infrastructure at KUL Terminal 2 brought the airport's total solar capacity to 14 MWp.

The completed installations of solar panels at its international and domestic airports in Malaysia, other than KUL, further contributed additional total solar capacity of 8.5MWp:

- Completed in 2021: MKZ and KUA
- Completed in 2022: PEN and LGK
- Completed in 2023: BKI

Installation of solar panels is currently underway for IPH and AOR.

In tandem with Malaysia Airports' sustainability efforts, a partnership has been secured for a 30MWp Solar Photovoltaic project for KUL's consumption on a 166-acre site within the Kuala Lumpur International Airports Aeropolis. The solar energy generated by the project would potentially increase renewable energy utilisation at KUL to 22.4%.

Apart from the focus on expanding its renewable energy capacity, Malaysia Airports also seeks to purchase green energy where available. In 2023, Malaysia Airports bid and secured a six-month subscription from February 2023 to July 2023 for low carbon or 'green electricity' from TNB under TNB's Green Electricity Tariff programme.

Malaysia Airports has also taken the steps to enhance energy efficiency in its operations. In 2023, through a joint venture with TNB Engineering Corporation Sdn Bhd, Malaysia Airports transformed and modernised the district cooling plant at KUL which powers the airport's air-conditioning needs, to improve efficiency and run fully on electricity.

In 2024, Malaysia Airports completed the BMS refresh at KUL. Leveraging industrial Internet of Things (IoT) sensors and cutting-edge management tools, the new system supports a smarter, safer and more sustainable airport environment. Malaysia Airports is also currently replacing AHU and chiller units at the old terminal building of LGK.

The Group's current and future initiatives to increase the proportion of renewable energy used against total energy consumption will include the following:

- Ramping up energy efficiency initiatives to reduce total energy consumption;
- Expanding renewable energy capabilities, primarily solar power; and/ or
- Purchasing green electricity.

Further to the above, Malaysia Airports may utilise RECs and other similar mechanisms to supplement broader initiatives aiming at increasing its use of renewable energy. For the avoidance of doubt, these instruments will be used solely in a supporting capacity, not as a primary means of increasing the proportion of renewable energy used against total energy consumption.

Risks to the achievement of the SPTs

Key risks that may impact the achievement of the SPT may include:

- Changes in government policy that diverge from the net zero plan might introduce new requirements that can disrupt the achievement of the targets.
- Financial constraints, such as lack of favourable financing options, high costs of capital, and significant capital expenditure requirements.
- Procurement challenges, such as limited availability of green electricity supply and supply chain challenges to deliver materials and labour needed for decarbonisation efforts.
- Implementation challenges, such as complex permitting processes, the need for significant infrastructure upgrades to allow for on-site renewable energy installation, and delayed project timelines.
- Data challenges, such as lack of robust data collection infrastructure and processes, which may lead to sub-optimal decision-making regarding decarbonisation efforts.
- Complexity of delivering interdependent net zero solutions and behaviours in capacity constrained airports with legacy infrastructure.

The list of potential risks is not exhaustive. Furthermore, as the operational structure of every airport is different, not all risks identified are relevant for every airport.

5.2.3 SPT for KPI #3: Airport Carbon Accreditation (ACA) level

SPTs	The following SPT has been identified for KPI #3: ▪ SPT 3: Achieve at least ACA Level 4 for KUL, by 31/12/2035.
Baseline	The ACA level for KUL as at end-2023 is Level 3. ▪ The 2023 baseline year has been selected by Malaysia Airports, based on the latest renewal of KUL's ACA at Level 3 (Optimisation) in FY2023.
Historical performance	Malaysia Airports first participated in the ACA programme in 2015, during which KUL received Level 2 (Reduction) certification. In 2018, KUL reached an important milestone by achieving Level 3 (Optimisation) certification, reflecting the airport's commitment and progress in adopting best practices in carbon management. KUL's certification at Level 3 (Optimisation) was renewed in 2023 by ACI. As reported in the Year 15 ACA Annual Report 2023-2024, of the 558 accredited airports worldwide, 466 or 83.5% of these airports were currently at Level 3 or below during the reporting period[45]. Malaysia Airports' SPT to achieve at least ACA Level 4 for KUL demonstrates significant ambition, especially given that within the ASEAN region, all airports are currently at Level 3 or below[46]. In addition, the ACA Level 4 target for KUL is in line with the MADB's proposed airport measures to support the pathway towards Net Zero 2050[47].
Action plan	In addition to the existing initiatives for KUL's ACA Level 3 renewal, the Group's current and future initiatives to achieve at least ACA Level 4 for KUL will include the following: ▪ Identifying and setting a policy commitment to absolute emissions reduction across Scope 1, Scope 2, and selected categories of Scope 3 emissions; ▪ Expanding carbon footprint to include additional (to Level 3) Scope 3 emissions; ▪ Formulating an absolute carbon emissions reduction target; ▪ Establishing the MAHB Net Zero Decarbonisation Roadmap; and ▪ Developing a Carbon Management Plan and a Stakeholder Partnership Plan for decarbonisation.
Risks to the achievement of the SPTs	Key risks that may impact the achievement of the SPT may include: ▪ Changes in the ACA eligibility criteria, which may disqualify Malaysia Airports from participating in the programme. ▪ Changes in the ACA level requirements, which may result in additional assessment components and more stringent expectations on carbon management and reduction that do not align with Malaysia Airports' decarbonisation roadmap. ▪ Changes in the ACA application process, which may introduce significant operational and resource burden.

[45] References: https://www.airportcarbonaccreditation.org/wp-content/uploads/2025/04/Airport-Carbon-Accreditation-Annual-Report-2023-2024.pdf
[46] References: https://www.airportcarbonaccreditation.org/accredited-airports/, as at 20th May 2025.
[47] References: https://www.mot.gov.my/en/Pages/Aviation/MADBlueprint%20BI%20FA.pdf

- Complexity of delivering interdependent net zero solutions and behaviours in capacity constrained airports with legacy infrastructure.

The list of potential risks is not exhaustive. Furthermore, as the operational structure of every airport is different, not all risks identified are relevant for every airport.

5.3 Financial Characteristics

The net proceeds of any Sustainability-Linked financing instruments issued under this Framework, where applicable, will be used for general corporate purposes, unless otherwise stated.

The relevant KPI(s), corresponding SPT(s), and financial characteristics of any Sustainability-Linked financing instruments issued under this Framework will be specified in the relevant documentation of the specific transaction.

Each Sustainability-Linked financing instrument will include a sustainability-linked mechanism, which sets out the financial implications of the achievement or non-achievement of the SPT(s) at the relevant Target Observation Date(s), which is defined as the date on which the KPI performance is to be observed and, if applicable, measured against a relevant SPT, and which will be as specified in the relevant documentation of the specific transaction.

These financial implications may include, but not limited to:

i. Coupon step up/ down or premium/ discount payment at maturity.
ii. Margin adjustment and/ or redemption fee adjustment at the reference date.

Characteristics of each Sustainability-Linked financing instrument, such as the correlation between maturities and observation dates, and quantum of margin adjustment and/ or redemption fee adjustment, will be commensurate to reflect prevailing market conditions and investors' requirements. The nature of the adjustments will depend and may differ based on the nature of the instrument.

The exact mechanism and impacts of the achievement or failure to achieve the specified SPT(s) will be detailed in the relevant documentation of the specific transaction.

Furthermore, this documentation will detail, among others, the KPI definition, calculation methodologies, SPT(s) and Target Observation Date(s), remedy mechanism(s) in the event whereby the specified SPT(s) cannot be calculated, observed, or reported as required by the terms of the relevant instrument, and relevant terms and conditions taking into consideration potential exceptional or force majeure events.

The issuer will be required to notify the investors of the achievement or non-achievement of the applicable SPT(s) within 180 days of the Target Observation Date(s).

5.3.1 Recalculation Policy

Post-issuance, in case of any material change to the perimeter/ KPI methodology/ SPT calibration prior to maturity of the Sustainability-Linked instrument, Malaysia Airports will appoint an external reviewer to assess any of these changes and publish the relevant external review report, on Malaysia Airports' website throughout the tenure of the Sustainability-Linked instrument.

The external reviewer should confirm, among others, the following:

i. Any changes that would result in the SPT(s) being no less ambitious than those originally set;
ii. The Sustainability-Linked financing instrument continues to align with ICMA's SLBP, ACMF's SLBS, SC's SRI-Linked Sukuk Framework and/ or LMA's, APLMA's and LSTA's SLLP;
iii. There continues to be consistency with the issuer's sustainability strategy;
iv. There is no material impact on the original external review;
v. There is no material adverse effect on the interests of investors; and
vi. Changes to calculation policies are aligned with the methodology recommended by the ACA programme, the Science Based Targets initiative (SBTi), or any other relevant internationally recognised body, where applicable.

5.4 Reporting

Malaysia Airports intends to disclose and keep readily available and easily accessible, the performance of the selected KPI(s) at least annually on its website.

The reporting may include:

i. Up-to-date information on the performance of the selected KPI(s), including the baseline where relevant;
ii. Up-to-date information on the SPT(s), outlining the performance against the SPT(s) and the related impact, and timing of such impact on a Sustainability-Linked financial instrument;
iii. A verification assurance report relative to the KPI(s) and SPT(s); and
iv. Any relevant information enabling investors to monitor the progress of the SPT(s).

When reasonably feasible and possible, information may also include:

i. A qualitative or quantitative explanation of the contribution of the main factors, behind the evolution of the performance against the KPI(s);
ii. Illustration of the positive sustainability impacts of any performance improvement; and/ or
iii. Any re-assessments of KPI(s) and/ or restatement of the SPT(s) and/ or pro-forma adjustments of baseline(s) or KPI(s) scope, if relevant.

5.5 Verification

5.5.1 Pre-Issuance Review

Malaysia Airports will obtain an independent SPO from an external reviewer with recognised expertise, on the Framework indicating alignment to the components of the ICMA's SLBP, ACMF's SLBS, SC's SRI-Linked Sukuk Framework and LMA's, APLMA's and LSTA's SLLP. This opinion will be available on Malaysia Airports' website.

5.5.2 Post-Issuance Review

Post-issuance and on an annual basis, at least for the period relevant for assessing the KPI(s) performance against the SPT(s), Malaysia Airports will report performance of the KPI(s) against the SPT(s) and will engage an external verifier to provide at least a limited assurance regarding the performance level for the stated KPI(s).

An external verifier means an external and independent auditor, or any other qualified provider of third-party assurance or attestation services appointed by Malaysia Airports.

For the issuance of Sustainability-Linked Bonds/ Sukuk, the performance of the KPI(s) against the SPT(s), along with the external verifier's verification report, will be made available on Malaysia Airports' website throughout the tenure of the Sustainability Linked Bonds/ Sukuk, no later than the deadline for delivery, until after the last SPT trigger event, as detailed in the relevant documentation of the specific transaction.

6 UPDATE AND AMENDMENT OF THE FRAMEWORK

Malaysia Airports will review this Framework from time to time, including its alignment to updated versions of the relevant principles as and when they are released, with the aim of adhering to best practices in the market.

Malaysia Airports will review this Framework and include additional Eligible Green, Social and/ or Transition Project categories from time to time subject to such additional Eligible Categories being aligned with the relevant principles/ guidelines.

Malaysia Airports will also review this Framework in case of material changes in the perimeter, methodology, and in particular KPIs and/ or SPT calibration.

Such review may result in this Framework being updated and amended. The updates, if not minor in nature, will be subject to the prior approval of an external reviewer with recognised expertise or any such other qualified provider of SPO.

Any future updated versions of this Framework will either keep or improve the current levels of transparency and reporting disclosures, including the corresponding review by an external verifier. The updated Framework, if any, will be published on Malaysia Airports' website and will replace this Framework.