MOTT MACDONALD

Antalya Airport Expansion Project

Framework Environmental and Social Management Plan

November 2022

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Antalya
Turkey

Antalya Airport Expansion Project

Framework Environmental and Social Management Plan

November 2022

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1 Introduction

1.1 Background

Fraport AG Frankfurt Airport Services Worldwide and TAV Havalimanlari Holding A.S. Joint Venture ("Sponsor") has been awarded the tender of Antalya Airport ("AYT") operation for 25 years between 2027 and 2051. The Joint Venture will ensure to increase the capacity of AYT and obtain a new concession for operation.

Financing is provided by The European Bank for Reconstruction and Development (the "EBRD"), International Financial Corporation ("IFC") and Asian Infrastructure Investment Bank (AIIB), jointly "the Lenders".

The currently used passenger terminals and associated facilities are operated by Fraport TAV Antalya Terminal İşletmeciliği A.Ş (FTA1) under a concession until January 1, 2027. Following the completion of ongoing construction works of the expansion of Terminal 2 (T2) and Domestic Terminal by FTA2 in the beginning of 2025, the terminals will be operated by FTA1 until the beginning of 2027. After January 1, 2027, FTA1 and FTA2 will merge and operate the terminals.

Mott MacDonald has been appointed by the Sponsors to undertake an ESIA to determine the potential impacts, and subsequent effects, of these works, supported by an overarching Environmental and Social Management Plan (ESMP) (i.e. this document).

1.2 Overview and Purpose of the ESMP

This document describes the framework to establish the ESMP for the Antalya Airport expansion works. ESMP addresses the impacts which is given in the Environmental and Social Impact Assessment by outlining plans and their contents, for managing these issues.

The objective of the plans outlined in the ESMP is to ensure a consistent approach towards the identification, control, management and reduction of environmental and social (E&S) risks and impacts associated with the construction and operation of the following components:

- Terminal Expansions,
- Car Park Expansions and Modifications,
- Cargo Terminal Development,
- Fuel Farm Replacement (i.e. existing Fuel Farm will be demolished and a new one will be built),
- VIP/CIP Area Development,
- Taxiway Developments,
- Landscaping Works,
- Apron Area Developments,
- Hangar Area Developments,
- Ground Service Equipment Parking Area Works

Aerial Plan of the Project is given below.

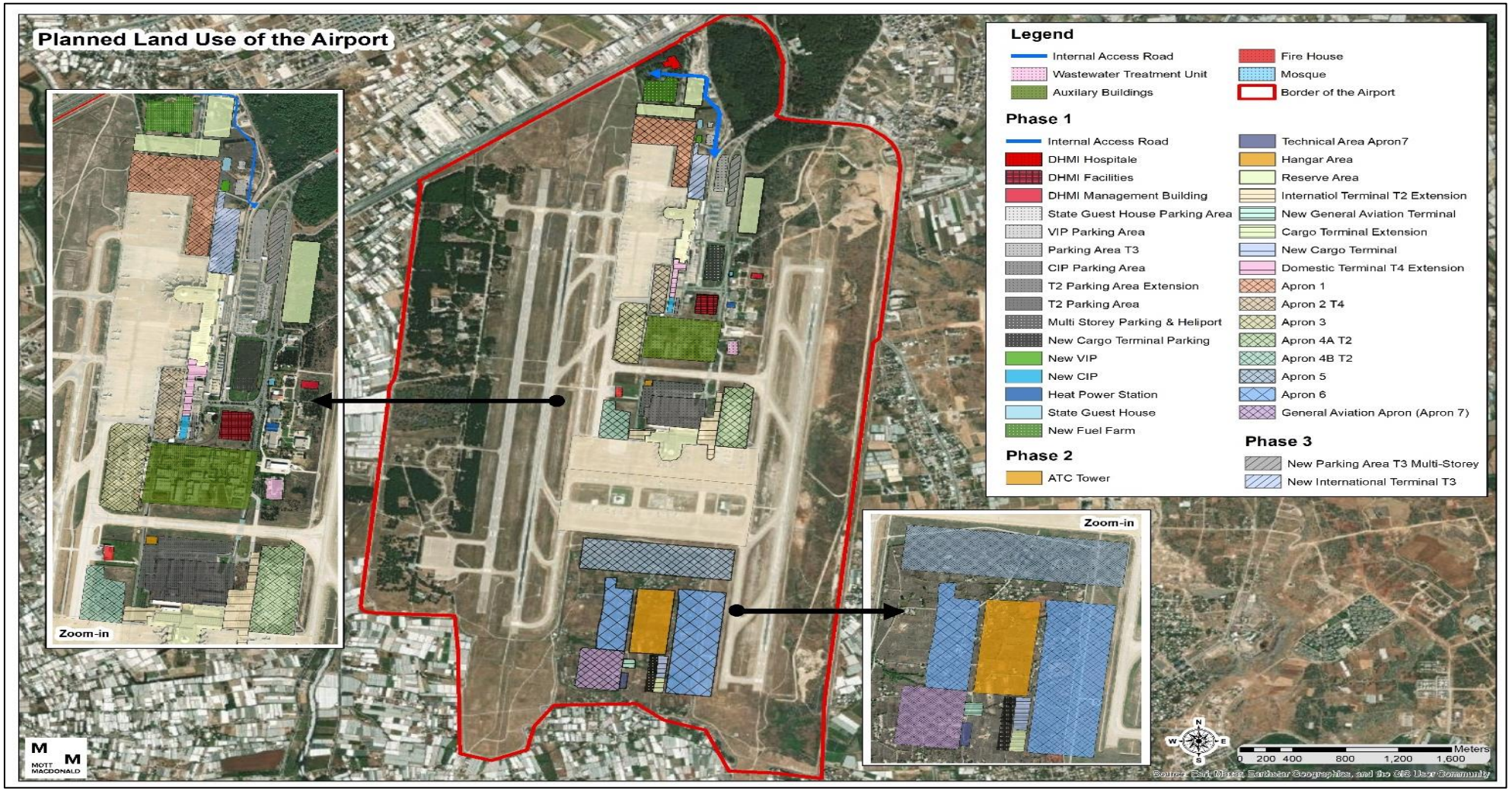

Figure 1-1: Areal Plan of the Project

In the ESMP of the Project, consolidated monitoring and mitigation requirements are given in line with ESIA report. Also, ESMP establishes a framework under which the engineering procurement and construction (EPC) contractor should develop mitigation and management plans. The Sponsor and EPC Contractor will be required to develop standalone mitigation and monitoring policies and plans, implementing the requirements contained within this document as a minimum.

This ESMP has been developed to comply with all national laws as well as good international industry practice (GIIP). The overarching reference laws and standards applied are:

International

- Applicable International Civil Aviation Organization (ICAO) occupational and public safety requirements for aerodromes
- EBRD Environmental and Social Policy and Performance Requirements (PR) (2019)
- Directive 2011/92/EU and Directive 2014/52/EU amending the EIA Directive 2011/92/EU
- EU Council Directive 2008/98/EC (Waste Framework Directive) on waste and repealing certain Directives (2008)
- EU Council Directive 2010/75/EU on industrial emissions (2010)
- EU Council Directive 2012/18/EU (Seveso-III) on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (2012)
- EU Council Directive 82/501/EEC on the major-accident hazards of certain industrial activities (1982)
- EU Council Directive 89/391/EEC (The OHS Framework Directive) on the introduction of measures to encourage improvements in the safety and health of workers at work (1989)
- Directive 91/271/EEC on Urban Waste Water Treatment and Directive 98/15/EEC amending Directive 91/271/EEC or Groundwater Directive (GWD) 2006/118/EC
- Regulation (EU) No 598/2014 of the European Parliament and of the Council of 16 April 2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Union airports within a Balanced Approach and repealing Directive 2002/30/EC
- European Commission Environmental Impact Assessment (EIA) Guidelines
- ICAO Guidelines for States Concerning the Management of Communicable Disease Posing a Serious Public Health Risk
- ICAO Guidance on Environmental Assessment of Proposed Air Traffic Management Operational Changes (2014)
- ICAO Noise Abatement Operational Procedures
- ICAO Guidance on the Balanced Approach to Aircraft Noise Management
- ICAO Airport Air Quality Manual (2011)
- ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air
- IFC Performance Standards (PSs) on Environmental and Social Sustainability (2012)
- IFC Sustainability Framework (updated in 2012)
- World Bank Group Environmental, Health, and Safety General Guidelines (EHS General Guidelines) (2007)
- World Bank Group Environmental, Health, and Safety Guidelines for Airports (2007)
- IFC Good Practice Handbook on the Use of Security Forces: Assessing and Managing Risks and Impacts (2017)

- Worker's accommodation: process and standards – Guidance Note by IFC and the EBRD (2009)
- IFC Good Practice Note: Managing Contractor's Environmental and Social Performance (2017)
- Addressing Gender-Based Violence and Harassment: Emerging Good Practice for the Private Sector (July,2020)
- UN Model Regulations on the Transport of Dangerous Goods, 2021

National

- Environmental Law (2872)
- Regulation on Environmental Impact Assessment
- Regulation on Environmental Permit and License
- Regulation on Environmental Audit
- Workplace Opening and Permit Regulation
- Regulation on Assessment and Management of Environmental Noise
- Regulation on Prevention and Mitigation of Major Industrial Accidents
- Regulation on Soil Pollution Control and Point-Source Contaminated Sites
- Water Pollution Control Regulation
- Regulation on Wastewater Discharges to Sewerage System
- Regulation on the Protection of Groundwater against Pollution and Deterioration
- Regulation on Control of Pollution Caused by Hazardous Substances in Aquatic Environment
- Regulation on the Transport of Dangerous Goods by Air Transportation
- Industrial Air Pollution Control Regulation
- Regulation on the Control of Air Pollution caused by Heating
- Regulation on Assessment and Management of Air Quality
- Regulation on Greenhouse Gas Emissions
- Regulation on Ozone Depleting Substances
- Regulation on Fluorinated Greenhouse Gases
- Regulation on Waste Management
- Regulation on Zero Waste
- Regulation on Landfill of Waste
- Regulation on Control of Waste Oils
- Regulation on Control of Polychlorinated Biphenyls and Polychlorinated Terphenyls
- Regulation on Control of Packaging Waste
- Regulation on the Control of End-of-life Tires
- Regulation on Control of End-of-Life Vehicles
- Regulation on Control of Waste Vegetable Oils
- Regulation on Control of the Waste Batteries and Accumulators
- Regulation on Control of Waste Electrical and Electronic Appliances
- Regulation on Control of Excavation, Construction and Demolition Waste
- Regulation on the Control of Odorous Emissions
- Regulation on Energy Efficiency in Buildings
- Regulation on Increasing Efficiency in the Use of Energy Sources and Energy

- Regulation Concerning Exploitation of Trees and Shrubs on Private-registered Immovables not Regarded as Forest
- Groundwater Law (167)
- Watershed Protection and Control Regulation
- Labour Law (4857)
- Law on Trade Union and Collective Bargaining (6356)
- Law on Public Servants (657)
- Regulation on Working Duration Related to Labour Law
- Regulation on Excess Work and Work in Excess Periods related to Labour Law
- Regulation on Special Principles in Works Carried out by Employing Workers in Shifts
- Regulation on Minimum Wage
- Regulation on Suspension of Work in Workplaces
- Law on Public Tenders (4734)
- Law on Public Tender Agreements (4735)
- Occupational Health and Safety Law (6331)
- Occupational Health and Safety Services Regulation
- First Aid Regulation
- Regulation on Occupational Health and Safety in Construction Works
- Regulation on the Procedures and Principles of the Employee's Health and Safety Trainings
- Regulation on Occupational Health and Safety Committees
- Regulation on Occupational Health and Safety Risk Assessment
- Regulation on Duties, Authority, Responsibilities and Trainings of Occupational Health and Safety Specialists
- Regulation on Duties, Authority, Responsibilities and Trainings of On-site Doctor and Other Health Personnel
- Regulation on Occupational Health and Safety in Temporary or Fixed Term Employment
- Regulation on Environmental Noise Emission Generated by the Outdoor Equipment Used at Site
- Exhaust Gas Emission Control Regulation
- Türkiye Earthquake Regulation for Buildings
- Road Traffic Regulation
- Law on People with Disabilities (5378)
- Regulation on Accessibility Monitoring and Auditing
- Regulation on the Health and Safety Measures to be taken in Workplace Buildings and Additions
- Regulation on Protection of Buildings from Fire
- Regulation on the Protection of the Workers against Risks Relevant to Noise
- Regulation on the Protection of the Workers against Vibration Risks
- Regulation on the Control of Dust Emissions
- Regulation on the Protection of Workers from the Dangers of the Explosive Media
- Regulation on the Emergency Situations in Workplaces
- Regulation on Health and Safety Measures in Working with Chemical Substances
- Regulation on Health and Safety Measures for Working with Carcinogenic and Mutagenic Substances

- Regulation on Use of Personal Protective Equipment in Workplaces
- Regulation on the Works in Which Workers shall Work Maximum Seven and Half Hours or Less in a Day in Terms of Health Rules
- Regulation on Safety and Health Signs
- Regulation on Manual Handling
- Regulation on Radiation Safety
- Regulation on Road Transportation of Hazardous Materials
- Regulation on Registration, Evaluation, Permission and Restriction of Chemicals
- Regulation on the Classification, Labelling and Packaging of Substances and Mixtures
- Law on Expropriation (2942)
- Zoning Law (3194)
- Law on Right to Information (4982)
- Law on Preservation of Personal Data (6698)
- Regulation on the Principles and Procedures for Enforcement of the Law on the Right to Information
- Law on Use of the Right to Petition (3071)
- Law on the Conservation of Cultural and Natural Assets (2863)
- Public Health Law (1593)
- Law on Protection of Family and Prevention of Violence against Women (6284)
- Regulation on Ensuring Security, Executing Duties and Services at Civil Airports, Ports and Border Gates
- Regulation on Security Measures Regarding General Aviation Air Transport
- Law on Private Security Services (5188)
- Regulation on Implementation of the Law on Private Security Services
- Airports Ground Services Regulation
- Law on Metropolitan Municipalities (5126)
- Law on Municipalities (5393)

1.3 Scope of ESMP

The ESMP applies to the design, construction and operational phases of the Project and to all personnel employed on the Project in accordance with their tasks and responsibilities.

This document is an overarching framework for environmental and social management. The EPC Contractor is required to transpose the measures and principles of this framework document into a Construction Environmental and Social Management Plan (CESMP) prior to site preparation/construction activities taking place.

1.4 Construction ESMP

The CESMP details environmental control steps necessary to reduce environmental and social impacts through the entire construction phase of the Project, identifying as a minimum:

- Description of the works,
- Regulatory requirements,
- Site organisation and management,
- Roles and responsibilities,
- Review, reporting and auditing procedures,

- Environmental and social risks and impacts,
- Mitigation and protection measures,
- Monitoring requirements,
- Training requirements,
- Emergency response plans and
- Method statements (where applicable).

The development of the CESMP will be finalized and will be supported by the following:

- Policies – overarching system of principles to guide the Project's environmental and social performance,
- Plans – additional, more detailed plans prepared by contractors related to specific aspects and areas which are impacted by their scope of works (i.e. waste management plan) and
- Procedures – more specific work instructions developed by the Sponsor, in collaboration with construction contractors, to support the implementation of the plans.

The Sponsor is responsible for oversight of the EPC Contractor during the construction phase. The Sponsor is also responsible for ensuring the Project complies with mitigation measures outlined within this document for the operational phase.

1.5 Structure of the ESMP

Structure of this document is given below:

Section 2 outlines the institutional arrangements through which the ESMP is implemented and the relationship and responsibilities between the Sponsor and the EPC Contractor. Where relevant, a number of capacity building measures have been identified to ensure that the institutional arrangements are appropriate and qualified for the allocated tasks.

Section 3 introduces the training requirements for the Project to ensure the right capability and capacity of the staff and organisations involved. It also outlines how to ensure the training is appropriate and records are effectively kept on which staff have received which training.

Section 4 provides an outline on the various site-specific ESHS management and monitoring plans to be implemented as part of the ESMP by the Sponsor and EPC Contractor. The sub-plans are intended to ensure that the various mitigation measures / activities identified through the ESIA process are incorporated by the project in a structured way.

Section 5 gives an overview of monitoring and reporting requirements associated with the activities and commitments contained within the ESMP documentation. The monitoring and reporting requirements include an adaptive management capacity to the ESMP reflecting that it is intended to be a live document subject to regular review and update as the Project evolves.

2 Implementation of the ESMP

2.1 Overview

The Project Sponsor – the owner and project developer, and the EPC Contractor – the lead organisation employed to construct the Project are the key stakeholders involved in the construction and operation phases of the Project. The Project Sponsor has overall accountability for the implementation of the mitigation measures outlined in this ESMP.

The EPC Contractor is required to transpose the measures and principles of this framework document into a Construction ESMP (CESMP), and the Project Sponsor is required to transpose the measures and principles of this framework document into an Environmental and Social Management System (ESMS) which will include the operational phase of the Project.

Further detail on the management plans and associated mitigation measures that the different organisations will develop and be responsible for implementing is provided in Section 4 of this document.

2.2 Roles and Responsibilities

This section outlines the roles and responsibilities for the Project Sponsor and EPC Contractor. It is recommended that a “RASCI Matrix” is produced as part of the project ESMS for both construction and operation phases by EPC Contractor and The Sponsor, respectively. This would show, for each main task, who has Responsibility, who has Accountability, who is Supporting, who should be Consulted, and who should be Informed. This would be done once personnel are identified and roles are fully agreed.

2.2.1 Project Sponsor

The Project Sponsor holds the ultimate responsibility for the environmental and social performance including the performance of its contractors and overall accountability for the compliance of the Project activities during both construction and operation phases. It is the responsibility of the Project Sponsor to oversee and monitor the implementation of relevant ESMP elements by the EPC Contractor and any of their sub-contractors during the construction phase. This includes auditing and assessing the EPC Contractor’s implementation of the relevant aspects of the ESMP, ensuring that corrective actions are taken when necessary to maintain ESHS performance in line with international standards and good international industry practice (GIIP).

The Project Sponsor is responsible for developing the ESMS which outlines the systems and processes established to manage the environmental and social issues and revising relevant environmental and social management plans. The ESMS will establish policies for the Project and provide more details on the management at an organisational level in order to implement this ESMP and align with other management system requirements. The Project Sponsor is responsible to ensure the EPC Contractor to transpose the measures and principles of this framework ESMP into a Construction Environmental and Social Management Plan (CESMP) prior to site preparation/construction activities take place and to provide periodic monitoring reports on the overall EHS performance of the project including that of EPC and subcontractors.

As the project moves into the operational phase, the Project Sponsor will have an increased direct role in the management and monitoring of environmental and social issues.

2.2.2 EPC Contractor

The EPC Contractor is required to meet the specific requirements outlined within the CESMP, which is implemented through the agreements between the Project Sponsor, EPC Contractor, and the other contractors. This can be assured by adding specific provisions to agreements or annexing this framework ESMP to relevant agreements. The contractor agreements should ensure compliance with this ESMP and appropriate national and international requirements.

It is the responsibility of the EPC Contractor to successfully implement the construction phase mitigation and monitoring measures outlined within this document through a dedicated CESMP and to ensure compliance of any construction contractors in meeting the requirements within CESMP.

The EPC Contractor will appoint a Worker's Grievance Manager to deal with any labour grievances of the workers and sub-contractors' workers including sensitive complaints for the construction phase. The EPC Contractor will also appoint a Community Liaison Officer (CLO) to interact with local communities as necessary under the supervision of the CLO of the Sponsor. The EPC Contractor will be required to undertake regular monitoring and inspections of the construction contractors and the Project site and will be required to keep up-to-date records as prescribed in this ESMP and report regularly to the Project Sponsor.

2.3 Management of Environmental, Social, Health and Safety

In order to meet the organisational roles and responsibilities outlined above, each organisation will ensure effective staffing structures and roles in place to manage Environmental, Social, Health and Safety (ESHS) issues and risks for both the construction and operational phases. This section outlines the structures and roles for construction and operation phases.

2.3.1 Construction Phase

During the construction phase, the EPC Contractor is primarily responsible for developing and implementing the CESMP. The Project Sponsor provides oversight and has ultimate accountability for the construction phase. Further details are provided below for each organisation.

2.3.1.1 EPC Contractor

The EPC Contractor is required to adhere to the principles of ISO 14001:2015[1] and ISO 45001:2018 [2] or equivalent. These standards place strong emphasis on the need for continuous improvement of the ESHS management systems and resultant ESHS management performance.

The EPC Contractor will take the following actions:

- Provide a construction site layout plan that identifies key activity areas in line with the relevant requirements.
- Develop a project specific CESMP.
- Elaborate other parallel sub plans (e.g. Air Quality Management Plan, Construction Traffic Management Plan etc).
- Produce detailed method statements relating to key activities that include specific reference to requirements of the plans contained herein during the project progression

[1] ISO 14001:2015 http://www.iso.org/iso/home/standards/management-standards/iso14000.htm

[2] ISO 45001:2018 https://www.iso.org/standard/63787.html

- Identify a person to be on site with dedicated ESHS responsibilities to oversee works on site. This person must be full time, appropriately qualified, and have more than ten years of relevant experience. The ESHS manager will be supported by an ESHS team.
- Provide all training necessary to oversee and implement ESMP requirements prior to and throughout construction as appropriate.
- Be responsible for producing a comprehensive suite of ESHS management and coordination procedures.
- Implement the requirements of the mitigation activities in the CESMP.
- Undertake environmental and social monitoring as specified in this ESMP.
- Appoint the Worker's Grievance Manager to manage and monthly report on labour grievances and labour performance monitoring, including all sub-contractors
- Report regularly to PMO / the Project Sponsor on any significant environmental social occupational health and safety incidents, as they occur during the construction and take appropriate corrective actions
- Ensure the medical facility / first aid office and medics are available for the construction workforce
- Appoint the CLO to interact with the local communities and receive, register, investigate, manage and monthly report on any community grievances received during the construction period.

All contractor staff is responsible for EHS management in their specific role. The main responsibility of dedicated ESHS staff is to focus on the monitoring of and reporting on CESMP and ESMS commitments and improvements, and any additional plans outside the work of construction site staff.

The EPC Contractor is responsible for construction contractor performance, including contractor adherence to the requirements of the CESMP. All construction contractors are required to have dedicated environmental and social staff to implement the CESMP and to monitor and manage this on an on-going basis. Contractor staff are required to liaise closely with the EPC Contractor ESHS staff. A typical construction contractor ESHS staffing structure that could be expected for the Project is set out in Figure 2-1 and Table 2-1.

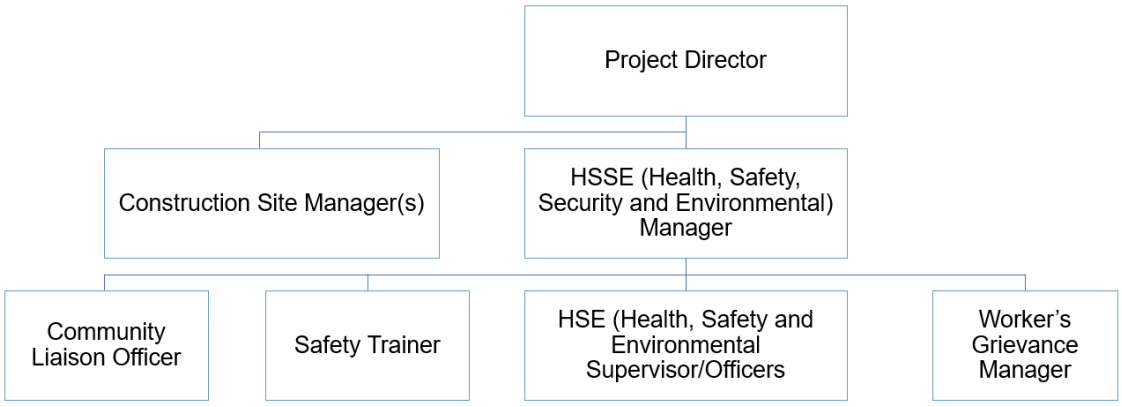

Figure 2-1: Typical EPC Contractor ESHS Structure

Table 2-1: Typical EPC Contractor ESHS staffing

Role	Responsibility	Typical number of staff in role (depending on scale of works)
Project Director	Overall responsibility for the entire EPC contract, including ESHS performance of contracted works, including sub-contractor(s).	1
Construction Site Manager	Coordination of all construction activities, including practical implementation of ESHS requirements at site and onsite ESHS performance.	1
HSSE Manager	Monitoring and reporting of Project ESHS performance. ESHS regulatory interface. Management and monitoring of CESMP plans implementation and environmental issues and performance Managing the team Reporting to the site manager Organising training for staff, including induction training (liaising with Environmental and Social Officers for delivering training) Ensuring project has the right environmental and social permits, consents, and discharge conditions to undertake the works Liaise with HR teams to ensure workers have the appropriate facilities, contracts, permits, qualifications and capacity for their work.	1
HSE Supervisor HSE Officers Safety Trainer	Monitoring and enforcement of CESMP plans implementation and environmental issues and performance Auditing of site activities and any sub-contractor activities, including permitting and consent requirements or any conditions Monitoring of CESMP implementation and reporting health and safety issues to the HSSE Manager Delivering training as required including “toolbox talks”. The Safety Trainer and Safety Supervisor will support the HSE team with ensuring high standards of health and safety on site, monitoring of health and safety, and providing training, amongst other duties.	1x HSE Supervisor 1x Safety Trainer Number of officers may vary depending on level of activity.
Workers Grievance Manager	Monitoring worker accommodation sites and assuring that they are in line with IFC/EBRD Guidance on Worker Accommodation Maintaining the workers’ grievance mechanism Managing and resolution of staff grievances Monitoring labour performance of all sub-contractors Regular reporting on labour grievances and labour performance including construction contractors	1 + 1 x Workers’ Grievance Managers at construction contractors
Community Liaison Officer	Responsible for community liaison and arranging communications with project affected communities during construction under supervision and direction of the CLO of the Sponsor Maintaining coordination with CLO of the Sponsor in delivery of SEP and CAP Responsible for receiving, channelling and managing resolution of community grievances during construction in line with SEP. All complaints will be recorded and reported within project reporting to Lenders. Responsible for regular community grievance reporting	1

HSSE Senior Manager

The EPC Contractor is required to nominate a person to take the primary responsibility for day-to-day implementation of the CESMP and related management plans, i.e. the HSSE Manager role. The formal job description will be in accordance with the elements provided below. The nominated person will carry out the following responsibilities:

- Take prime responsibility for implementation of the environmental and social management;
- Oversee and ensure the implementation of the CESMP and sub plans (with support from the Construction Site Manager, detailed below) and ensure all sub-contractors are in compliance with the CESMP requirements;
- Review and report performance to the Construction Site Manager, the EPC Contractor and the Project Sponsor;
- Review sub–contractor(s)' environmental and social protection/mitigation measures to ensure compliance with the CESMP;
- Report on a daily basis any CESMP non-compliances to the EPC Contractor's Construction Manager;
- Carry out regular environmental and social awareness sessions and assist personnel in applying environmental and social standards on site;
- Organising training for staff, including induction training (liaising with HSE Officers, HR, CLO and cultural heritage expert for delivering training)
- Conduct regular audits / inspections to check that committed impact mitigation measures are being implemented;
- Act as the first point of contact of the EPC Contractor on environmental and social matters, for the stakeholders including government authorities, other external bodies and the general public;
- Ensuring project has the right environmental and social permits, consents, and discharge conditions to undertake the works; and
- Liaise with Human Resources (HR) teams to ensure workers have the appropriate facilities, contracts, permits, qualifications and capacity for their work.

There are certain aspects that the EPC Contractor's HSSE Senior Manager will be required to have knowledge and experience in, including:

- An understanding of the international standard techniques of environmental and social management;
- Familiarity with local environmental and social legislation and the likely developments in this field;
- Practical operation of environmental and social monitoring techniques;
- Ability to summarise environmental and social data in order to produce concise and conclusive reports;
- Have the confidence to enforce strict, but pragmatic, environmental and social control procedures and to motivate the construction staff to a high level of environmental and social awareness; and
- Minimum of ten years practical experience on construction sites.

Construction Site Manager

The Construction Site Manager co-ordinates activities based on inputs from the HSSE Manager and assist in the allocation of staff with the skills for applying the CESMP on site. It is envisaged that the Construction Site Manager is required to:

- Ensure that the HSSE Manager is adequately qualified to understand and implement the CESMP;
- Nominate personnel to assist the environment and social officers as required;
- Be responsible for communications with the Project Sponsor regarding environmental and social issues and non-compliances;
- Supervise and oversee the direction of the Project, ensuring that the specifications and requirements are met, reviewing progress and liaising with quantity surveyors to monitor costs;
- Liaise with the Project Sponsor, other construction professionals and, as required, members of the public;
- Provide visible and meaningful support to the HSSE Manager to resolve environmental and social issues on site or within the organisation's structure;
- Coordinate and supervise construction workers;
- Make safety inspections, ensuring construction and site safety;
- Check and prepare site reports, designs and drawings;
- Maintain quality control procedures;
- Assess and minimise risk; and
- Help to negotiate contracts and securing permits and licences.

Environmental, Social, and Health and Safety Monitoring Officers

The EPC Contractor's Environmental, Social and Health and Safety Monitoring Officers are required to complete surveys and regular site checks to confirm E&S compliance regarding aspects as identified in the CESMP and as required by local authorities and the Lenders, including matters of health and safety and labour performance. Where evidence of E&S, labour or health and safety risks are found, the monitoring officers contacts those responsible and request the issue is rectified. They are responsible for ensuring previously identified non-conformities are completed to an appropriate standard, enlisting support from the HSSE Site Manager, where required. The officers should have the ability to explain technical matters simply to non-scientific audiences, as well as providing training. Training includes provision of "toolbox talks" on site on a wide range of environmental, social, labour and health and safety matters.

The officers are expected to support the HSSE Senior Manager with auditing against permits and consents requirements, including any conditions associated with the permits/consents.

2.3.1.2 Project Sponsor

The Project Sponsor has overall accountability for the construction phase and the management of ESHS. As part of this, the Project Sponsor is accountable for the oversight of the EPC Contractor for their performance and that of all contractors on a regular basis. This will include the EPC Contractor's responsibilities with regards to the CESMP and environmental and social management, in accordance with international best practice. This oversight may be implemented through drawing on the services of independent specialists as required.

The Project Sponsor will therefore undertake the following throughout the duration of the construction period:

- Review contractor documents (for example, associated sub-management plans, procedures, and mechanisms for reporting, record keeping and auditing) against the requirements of this ESMP;
- Undertake regular audits;

- Continuously check records to allow for the identification of patterns;
- Set up a contractor reporting structure; and
- Conduct regular meetings where ESHS issues are an agenda item.
- Ensure that community liaison and grievances are managed in line with SEP, grievance management identified in SEP, that all complaints are captured and recorded and reported. CLO of the Sponsor will manage this and supervise relevant staff in EPC contractor.
- Coordinate actions with DHMI, DSI, fuel farm operator and other relevant third parties in order to develop and/or implement actions as agreed in the ESAP

The Project Sponsor will include detailed requirements in the Contractors' contracts and agreements, including provisions to incentivise adherence to these requirements such as withheld payments in cases of poor environmental and social performance or additional payments for excellent performance. The Project Sponsor will closely monitor all reports received from the Contractors to monitor compliance.

Whilst a management staff structure for the Project Sponsor during construction is not proposed here, roles are to be established to ensure the above responsibilities can be effectively carried out. Additional support from independent specialists should be drawn on to support where needed.

However, aspects of the operational phase management structure for ESHS should be implemented for the construction phase (see Figure 2-2).

The ESHS Director is responsible for regular review meetings with the Lenders' Technical Advisor(s) (LTA) for the Project. This will include submitting reports and auditing results.

2.3.2 Operation Phase

2.3.2.1 EPC Contractor

The EPC Contractor roles are focussed on the construction phase only. Therefore, there is no proposed role or management structure for them during the operational phase.

2.3.2.2 Project Sponsor

The Project Sponsor will establish an ESHS department to oversee and manage all ESHS issues during the operational phase; this is likely to build on the existing airport ESHS department.

Specifically, they will also be responsible for undertaking environmental and social management and monitoring as outlined in this ESMP.

A preliminary staffing structure of the ESHS department is set out in Figure 2-2 and in

Figure 2-2: Preliminary operational EHHS organogram

Table 2-2. Project Sponsor personnel key roles and responsibilities will be set out in procedures created as part of the ESMS, including organisational and individual working procedures.

Whilst some evolution of the department structure, staff numbers, and responsibilities is expected, the overall structure and roles and responsibilities will be defined during its inception and modifications implemented as required.

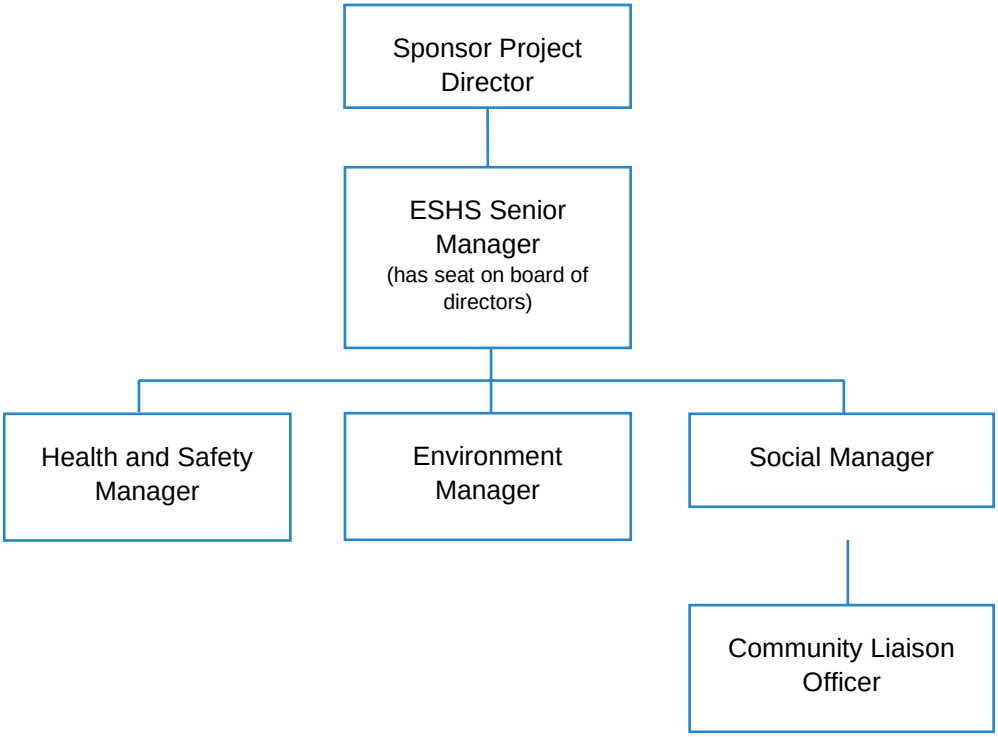

Figure 2-2: Preliminary operational EHHS organogram

Table 2-2: Project Sponsor operational ESHS department – key roles and responsibilities

Role	Responsibility	Location
Sponsor Project Director	Policy, overall responsibility, government liaison	Head office with regular visits to site
ESHS Senior Manager	Compliance reporting on all H&S issues to the ESHS Director	On site
Environment Manager	Compliance reporting and day-to-day oversight of environmental issues (may be a shared role with Social and Manager).	On site
Social Manager	Compliance reporting and day-to-day oversight of social and labour-related issues (may be a shared role with Environment Manager).	On site
Health and Safety Manager	Compliance reporting and day-to-day oversight of health and safety issues	On site
Community Liaison Officer	Day-to-day interaction with all people affected by the Project.	On site

3 Training

3.1 Overview

In achieving the approach to environmental and social management described in previous sections, it is implicit that all staff receive the required training in both general and job-specific terms. This training should not be considered a stand-alone exercise but must form an integral part of on-going training programmes.

Environmental and social training will help to ensure that the requirements of the ESIA, ESAP, ESMP and ESMS are clearly understood and followed by all personnel and that the parties involved have the right capability and capacity for their work.

The section describes the requirements training for environmental and social training in both the construction and operation phases.

3.2 Construction Phase

Staff training is a key aspect of managing environmental and social risks during the construction phase. The EPC Contractor is responsible for developing and delivering training for construction staff and ensuring that sub-contractors are suitably qualified for their roles. The Sponsor is responsible for oversight of the EPC Contractor and is ultimately accountable for appropriate training for construction staff.

The environmental and social training programme for the construction phase will be finalised before the commencement of the construction of the Project, taking place during the detailed design phase. Training programmes will be reviewed at least bi-annually to ensure they are meeting the Project requirements and international best practice, with updates made accordingly.

Operational airport staff whose period of employment overlaps with the construction works, but whose role is focussed on operational aspects rather than construction aspects, would form part of the operational phase training programme. The training of such staff would be the responsibility of the Sponsor and not of the EPC Contractor.

3.2.1 General Environmental and Social Awareness Training

All construction staff is required to attend an in-house training course on general environmental and social awareness. This is delivered in a consistent structure, irrespective of the staff designations attending. The main objective of this type of training is to provide:

- A general understanding of the environmental and social risks associated with the Project;
- National and Lenders' requirements on environmental and social compliance, labour rights and working conditions including grievance mechanism.
- Clarification of the environmental and social policies for the Project (informed by environmental and social policies/plans, ethical code/code of conduct of the Sponsor and EPC Contactor) and their practical implementation. This will emphasise that the policies carry implications for the working methods and responsibilities for all employees.

Continual awareness of environment and social matters will be maintained. The Project's Environmental and Social Policy Statement will be on permanent display in prominent positions around site, such as the administration block, reception area, the control room, staff catering facilities and construction site offices. Important other processes and documents such as Ethical

code/code of conduct, grievance mechanism and tools will also be displayed in appropriate and accessible areas.

Awareness training will include for emergency preparedness to deal with emergency situations that may impact the environment (e.g. chemical / fuel spillage, aircraft crash, terrorist event or natural disaster such as mudflow or earthquake) where relevant for the role. Practice or test sessions for emergency response performance will be undertaken as needed. Where identified, lessons learnt and improvements should be incorporated into training and procedures.

3.2.2 Environmental and Social Issues Training

All personnel and third-party visitors entering work sites are to attend a site induction prior to entering.

Specific or specialist E&S training will be provided as follows:

- For employees who carry out the same or similar roles as the Contractor(s) supervisors;
- For construction workers as applicable to their job responsibilities, mainly through toolbox talks;
- For selected workers responsible for emergency responses to spills;
- Additional trainings will be developed and delivered on preventing gender based violence and harassment for all staff including contractors.

All organisations involved in the Project will develop and maintain a training needs matrix and associated training programme to identify which specific job roles for their respective organisations require additional specialist training.

Specialist training will either be performed by suitably qualified in-house personnel, or by approved external training providers.

3.3 Operation Phase

The environmental and social training programme for the operational phase will build upon the existing training and capability that already exists for the operational airport. It is the responsibility of the Sponsor to update the airport's operational training requirements and processes in line with international best practice and lenders' requirements. This includes reviewing the existing staff capability to identify where changes are to be made.

All operational staff will need to be aware of new ESHS processes and systems that are introduced. This forms part of the remit of the operational ESHS management team.

As new operational staff join, they will receive the updated general environmental and social awareness training, as well as the updated training for their specific role.

Training programmes will be reviewed at least annually to ensure they are meeting the Project requirements and international best practice, with updates made accordingly.

3.3.1 General Environmental and Social Awareness Training

As with the construction phase, operational phase staff are expected to have an understanding of the overarching environmental and social policies and plans for airport operations, including how these policies impact upon their role. All staff should have a general awareness of environmental and social matters including labour rights and working conditions, grievance mechanism. Ethical code/code of conduct will continue to be displayed in appropriate venues.

Awareness training will include for emergency preparedness to deal with emergency situations that may impact the environment (e.g. chemical / fuel spillage, aircraft crash, terrorist event or natural disaster such as mudflow or earthquake) where relevant for the role. Practice or test sessions for emergency response performance should be undertaken as needed. Where identified, lessons learnt and improvements should be incorporated into training and procedures.

3.3.2 Environmental and Social Issues Training

Many operational roles have a greater requirement for training beyond the general environmental and social awareness training. As considered above, there are existing training processes for the operational airport which will be reviewed and updated as required in line with international best practice, with existing operational staff given updated training that is specific for their role. Updates will consider staff current roles, how such roles are currently performed, the associated environmental and social risks, and any gaps found. Trainings on human rights and gender based violence, harassment will be provided to new recruits, and refresher trainings will be provided for all staff at appropriate intervals identified in HR training plans.

3.4 Training Records

Staff will complete and sign an attendance sheet for all courses attended, including the environmental and social awareness training or “toolbox talks”. It would also be recommended that staff complete a course evaluation sheet at the end of each course in order to assess the effectiveness of the training delivered.

All records, including the course evaluation and attendance sheets, will be held in a central location by the Health and Safety team (as part of the EPC Contractor during construction, or as part of the Sponsor during operation), and made available during any audit conducted as part of the audit programme.

The frequency and content of the training will be reviewed regularly to ensure it is effective, delivered in the correct manner and to the correct audience. Lessons learnt during the Project works will be incorporated into the training as they arise.

4 Environmental and Social Management Program

This section details additional studies, management plans and associated mitigation measures which are required to avoid, minimise and compensate for the impacts identified in the ESIA. These plans have been identified as part of the ESIA and ESAP processes.

A summary of the plans along with the Project phase and responsible party is shown in Table 4-1 below.

The plans and procedures identified are framework documents only and will need to be developed further by the Project Sponsor and agreed with Lenders. Plans and policies identified in this section have been taken from the ESIA and ESAP.

Table 4-1: Summary of Project plan requirements

Plan Name	Phase	Responsibility
Spill Response Plan	Construction	EPC Contractor
Emergency Response Plan	Construction	EPC Contractor
Water Management Plan	Construction	EPC Contractor
Hazardous Material Management Plan	Construction	EPC Contractor
Air Quality Management Plan	Construction	EPC Contractor
Noise Management Plan	Construction	EPC Contractor
Traffic Management Plan	Construction	EPC Contractor
Cultural Heritage Management Plan	Construction	EPC Contractor
Chance Finds Procedure	Construction	EPC Contractor
Community Health and Safety Plan	Construction	EPC Contractor
Waste Management Plan	Construction	EPC Contractor
Contractor Management Plan	Construction	EPC Contractor
Stakeholder Engagement Plan	Construction	EPC Contractor
Land Acquisition Corrective Action Plan and Supplemental Livelihood Improvement Plan	Construction	The Sponsor
Community Health and Safety Plan	Operation	The Sponsor
Emergency Response Plan	Operation	The Sponsor
Operation Water Management Plan	Operation	The Sponsor
Air Quality Management Plan	Operation	The Sponsor
Noise Management Plan	Operation	The Sponsor
Waste Management Plan	Operation	The Sponsor
Hazardous Material Management Plan	Operation	The Sponsor
Traffic Management Plan	Operation	The Sponsor
Cultural Heritage Management Plan	Operation	The Sponsor
Chance Finds Procedure	Operation	The Sponsor
Contractor Management Plan	Operation	The Sponsor
Land Acquisition Corrective Action Plan and Supplemental Livelihood Improvement Plan	Operation	The Sponsor
Stakeholder Engagement Plan	Operation	The Sponsor

Table 4-3 details any additional studies that are required to inform the detailed design and construction management.

Table 4-3 and Table 4-4 details the mitigation measures defined in the ESIA for different environmental and social aspects of the Project together with the responsible party for construction and operation phases, respectively.

Table 4-2: Additional studies required

Additional study	Purpose	Detail of additional studies	Preparation phase	Responsibility
Water/Groundwater Quality Monitoring	For determining Project's impact on water.	It is recommended that water is sampled from the following locations: • wastewater treatment facility storage tanks, prior to discharge into groundwater table. • runway drainage sediment trap. • drainage ditch which the runway drainage discharges into (upstream and downstream of the point of discharge) leading to soakaway. • new fuel farm site • groundwater wells in the airport. • groundwater wells around the airport in 1 km distance from the airport boundary (specific locations will be defined under the monitoring plan) It is recommended that water is sampled for the following parameters: • Heavy metals and metalloids including arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc). • pH, dissolved organic carbon, ammoniacal nitrogen, suspended solids • TPH • PAH • PCB – in the vicinity of electrical equipment • VOC • pesticides/herbicides • PFAS – airside or where firefighting foams have been used. Should groundwater quality monitoring return results outside of defined acceptable limits, appropriate remedial action should be carried out.	Construction and operation	The Sponsor
Soil Laboratory Testing	The previous uses of the site and the present activities in the surroundings are sources of potential soil and groundwater contamination in	The following contamination testing suite is advised for soil samples:	Construction	The Sponsor

Additional study	Purpose	Detail of additional studies	Preparation phase	Responsibility
	the area. Spills and leaks of hazardous materials (including petroleum products) are common sources for potential hydrocarbon and heavy metal contamination in soils. As some categories of pollutants are persistent in soil and groundwater, their presence could also signal the presence of a wider range of other pollutants during monitoring. Therefore, it is useful to establish and document baseline levels of hydrocarbon and heavy metal contamination on site.	• heavy metals and metalloids including arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc. • Asbestos (in fill/made ground only). • pH, soils organic matter, cyanide • total petroleum hydrocarbons (TPH) • polycyclic aromatic hydrocarbons (PAH) • poly chlorinated biphenyls (PCB) – in the vicinity of electrical equipment • volatile organic compounds (VOC) • pesticides/herbicides – in areas of vegetation spraying • Per and polyfluroalkyl substances (PFAS) – airside or where firefighting foams have been used		
Archaeological monitoring	It is necessary during the ground disturbing activities around the registration borders of Ancient Water Canal 1 and 3.	• An archaeologist (as a cultural heritage monitoring specialist) will be employed under the project organisation chart or a cultural heritage monitoring consultancy service will be assigned to make daily archaeological monitoring during the construction phase. The mobilisation of the monitoring archaeologists or consultancy service will be made before the construction activities of the project, and the name and posts of the archaeologists or consultancy service will be specified in the organization chart of the project in all documents. • The cultural heritage/archaeological monitoring expert/s will work with the equipment operators and have authority to stop the work. The expert/s will accompany all ground disturbance activities of the project. • Experts will continue liaising with relevant authorities on cultural heritage property conservation and take on board advise/instruction of the authorities,	Construction	The Sponsor

4.1 Construction Environmental and Social Management Plan

The overarching CESMP will be prepared to provide guidance on ESHS management approach to be adopted by the EPC contractor and sub-contractors for all activities undertaken throughout the construction phase of the project (which shall be overseen by the Project Sponsor).

The CESMP details the control steps necessary to reduce ESHS impacts through the entire construction phase, identifying as a minimum:

- A description of the works;
- Regulatory requirements;
- Site organisation and management;
- Roles and responsibilities;
- Review, reporting and auditing procedures;
- Mitigation and protection measures;
- Monitoring requirements;
- Training requirements;
- Emergency response plans; and
- Method statements (where applicable).

The CESMP will be supplemented by various separate sub-plans and procedures (as listed in Table 4-1) which will be developed to address key ESHS aspects identified during the ESIA process to detail control procedures and define associated responsibilities for implementation.

The EPC Contractor develops the CESMP whilst the Project Sponsor reviews and approves the document. The CESMP is also shared with local authorities, as required. The EPC Contractor should comply with and implement the CESMP, although the Project Sponsor is ultimately responsible for its implementation in accordance with international requirements.

4.2 Operational Phase – Environmental and Social Management System

For the operational phase, an overarching ESMS will be prepared prior to operation of the Project in accordance with national legislation, standards and guidelines. The structure and objectives of the report will largely be the same as the CESMP. The Project Sponsor will be responsible for ensuring that the Project complies with mitigation measures outlined within this document for the operational phase.

Table 4-3: Construction phase ESMP

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
General	C1	Environmental and Social Management System	IFC PS1 EBRD PR1	Construction phase Environmental and Social Management System (ESMS) will be developed in line with international good practice and guidelines. At present, the following plans are identified which will be part of the construction phase ESMS: • Spill Response Plan • Emergency Response Plan • Water Management Plan • Hazardous Material Management Plan • Air Quality Management Plan • Noise Management Plan • Traffic Management Plan • Cultural Heritage Management Plan • Chance Finds Procedure • Community Health and Safety Plan • Waste Management Plan • Contractor Management Plan • Stakeholder Engagement Plan • Corrective Action Plan and Supplemental Livelihood Improvement Plan	EPC Contractor and The Sponsor	Before 2023
	C2	Permitting	National Legislation	All necessary permits/consents/approvals (including construction permit) will be obtained in accordance with the national legislation.	The Sponsor EPC Contractor	Prior to each construction activity and as relevant during construction
	C3	Construction Methods	IFC PS1 EBRD PR1	• Construction methods will be developed for each construction activity • Method statements will be developed in line with good practice to manage and monitor construction phase environmental and social issues	EPC Contractor	Prior to each construction activity
Water Quality, Hydrology and Hydrogeology	C4	Protection of surface water and groundwater	IFC PS3 EBRD PR3 Best Practice National legislation	• Accidental spill prevention through implementing to Spill Response Plan • Construction workers and relevant staff will be trained related to the implementation of good construction site practices and on spill response and prevention measures. • Compliance with rules of material storage and use, waste storage and its timely removal. • Suitably sized impervious bunds or other containment will be installed where hazardous materials are handled (such as fuel storage and loading areas, concrete	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				mixing, hazardous material storage area) to prevent hazardous materials entering the site drainage. • Use of the existing roads for material delivery. • Work performed strictly within the construction site. • Strict prohibition of vehicle washing and refuelling outside of the specially equipped places. • Construction activities will be regularly inspected on site by the Sponsor. • Any discharge from the site will be controlled and appropriately permitted		
	C5	The use of water as a dust suppression mechanism to reduce the amount of dust created	IFC PS3 EBRD PR3 Best Practice National legislation	Mitigation measures in the Dust Control Plan and Environmental Management Plan prepared by the EPC Contractor include: • Any unnecessary soil moving/clearing should be avoided to minimize dust. • Access routes to the construction sites and especially unpaved project areas should be regularly sprayed with water sprinklers between 07:30-18:30 hours every hour. The frequency of watering can be adapted to the climate conditions accordingly (no watering during or immediately after rain, more frequent watering on hot days). The water is applied with sprinklers in a way that does not generate runoff yet minimizes dust occurrence. • All piling of materials/soils should be stabilized in a manner that minimizes the occurrence of dust by wetting the top layer. • Stockpiles of fine material such as sand, topsoil material, cement, etc. shall be protected from wind. Stockpiles must be located a minimum of 50m from storm water drains or 30m if appropriately covered. Non-fines must be stored a minimum of 30m from surface water bodies or storm water drains. • Travel route should be dampened using a bowser and dust screens utilised if necessary. • An adequate water supply shall be provided for dust suppression. • On-site and access roads shall be periodically maintained through spraying with water.	EPC Contractor	Construction phase
	C6	Protection of water quality and groundwater level	IFC PS3 EBRD PR3 Best Practice	A water quality monitoring regime of groundwater will be implemented during the construction phase and continued during the operational lifespan of the site. It is recommended that water is sampled from the following locations: • wastewater treatment facility storage tanks, prior to discharge into groundwater table. • runway drainage sediment trap. • drainage ditch which the runway drainage discharges into (upstream and downstream of the point of discharge) leading to soakaway.	The Sponsor EPC Contractor	Construction phase Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• New fuel farm site. • groundwater wells in the airport. • the wells around the airport in 1 km distance from the airport boundary (specific locations will be defined under the monitoring plan)		
Soils and Geology	C7	Protection of soil quality	IFC PS3 EBRD PR3 Best Practice	• Excavation materials will never be loaded on the slopes. Excavation limits will be well defined and the appropriate safe distance calculated before excavation works start. During the foundation excavations, all occupational safety measures should be taken and excavation should not be carried out in a way that will cause the surrounding area and structures to slide. • Implementation of good construction site practices in line with national regulations and international guidelines for protection of soils. • Hazardous materials will be suitably stored to prevent leaks and spills. Adequate bunding will be provided for all fuel and chemical storage. Drip trays will be used to intercept leaks and spills during fuelling. The contractors will take all reasonable measures to prevent possible pollution of soils and watercourses. Spill management will be covered within the associated plans (i.e. Spill Response Plan). • Procedures will be set up for identifying and dealing with contaminated soils and materials if encountered during construction, including appropriate storage and disposal. Should any soils be suspected as being contaminated, then samples will be analysed to see if corrective action is required. Contaminated soils will be disposed of in an appropriately licensed disposal site. • Measures will be taken for the protection of newly exposed soil surfaces from rainfall and wind erosion. • The reuse of the excavated material as fill material to level off topography and for landscaping purposes will be implemented wherever practicable, or surplus construction material can be made available to third parties for reuse on local development projects if it cannot be utilized on site. A decommissioning plan will be prepared prior to decommissioning of the fuel farm. Specific mitigation measures to be taken for dismantling of the existing fuel farm are outlined below as specified by Environment Agency (UK)[3]: • A full environmental risk assessment will be conducted.	EPC Contractor	Construction phase

[3] Last accessed on 21.10.2022
https://www.gov.uk/guidance/prevent-groundwater-pollution-from-underground-fuel-storage-tanks/decommissioning-an-underground-storage-tank

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Soil and groundwater sampling and quality analysis will be conducted before and after decommissioning, which will also be used as part of risk assessment. • Tank bottoming will be made by removing any residual product from the tanks and pipes. – All the wastes will be disposed of at a permitted waste facility – All necessary measures will be taken in order to avoid spills and leaks – After the tanks and pipes are bottomed, any explosive vapors will be removed, e.g. by filling it with inert gases or water. In case water is used, it will be discharged properly with proper permits • Any explosive vapours will be removed from the tank and pipes for safety concerns before removal. • The tanks, pipes, dispensers and separators will be cleaned after removal. • All the tanks and pipework that will not be used again will be removed in order to avoid potential pollution from remains in the tanks. If any tanks are planned to be left on site it will be ensured that they are made safe by inerting them (i.e. filling it either by a sand and cement slurry, hydrophobic foam or foamed concrete). • The oil separators will be removed and disposed of away from the site in line with the relevant legislation.		
	C8	Ground investigation and risk assessment	IFC PS3 EBRD PR3 Best Practice	• Undertake an intrusive ground investigation comprising the drilling of boreholes and/or trial pits at an appropriate grid spacing in areas of proposed ground break, including the existing and new fuel farm locations. • Boreholes/trial pits should be drilled or excavated to a minimum of 3m depth to target shallow contamination. • Where excavations have already been started then representative samples of soils should be retrieved from the sides and base of the excavation (minimum three from the base and one from each side). • As part of the study, groundwater quality should also be investigated. It shall be technically assessed by the experts conducting the study either groundwater samples will be taken from existing wells or a number of the boreholes will be extended to target the groundwater. • It should be assumed that wells are available for longer term monitoring over the entire construction duration and therefore these should be located outside of the footprint of the buildings or tanks. • Post-fieldwork monitoring of wells to retrieve groundwater samples on a minimum of three occasions.	The Sponsor EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing

				• Soil and groundwater laboratory testing of retrieved samples for the contaminants of concern based upon the work contained in the ESIA. The following contamination testing suite is advised for soil samples:
				  ○ heavy metals and metalloids including: arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc.
				  ○ Asbestos (in fill/made ground only).
				  ○ pH, soils organic matter, cyanide
				  ○ total petroleum hydrocarbons (TPH)
				  ○ polycyclic aromatic hydrocarbons (PAH)
				  ○ poly chlorinated biphenyls (PCB) – in the vicinity of electrical equipment
				  ○ volatile organic compounds (VOC)
				  ○ pesticides/herbicides – in areas of vegetation spraying
				  ○ Per and polyfluroalkyl substances (PFAS) – airside or where firefighting foams have been used
				  ○ For groundwater:
				  ○ Heavy metals and metalloids including: arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc).
				  ○ pH, dissolved organic carbon, ammoniacal nitrogen; suspended solids
				  ○ TPH
				  ○ PAH
				  ○ PCB – in the vicinity of electrical equipment
				  ○ VOC
				  ○ pesticides/herbicides
				  ○ PFAS – airside or where firefighting foams have been used.
				• Should any significant soil or groundwater contamination be recorded by the investigation then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks.
				• Similar to the existing fuel farm, new fuel farm will be designed as to comply with the EI/JIG Standard 1540 Design, Construction, Commissioning, Maintenance and Testing of Aviation Fuelling Facilities and the provisions of the Seveso Directive.
				• An audit will be conducted against Seveso Directive prior to commissioning of new fuel farm.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
Biodiversity	C9	General – Pollution prevention	IFC PS6 EBRD PR6 Best Practice	Minimisation: Minimise the direct loss of the habitats that could support species of conservation importance such as scrub, open forest and herbaceous vegetation (including the grassland within the existing airport) Minimisation: Control the accidental release of pollutants and potentially contaminated sediments Specific measures for pollution prevention to be implemented include: • No refuelling facility of construction vehicles to be provided on site • Ensuring all toxic, hazardous and harmful materials, chemicals and the fuel are stored in bunded areas with impervious bases and soak pits to contain accidental spills • Minimising the stored quantities of diesel, oil, paints, thinner or other chemicals that pose environmental hazards and fit all drums and barrels with flow control taps and ensure proper labelling • Implementing fuel/chemical spill prevention procedures on the site and proper contingency planning, including availability of spill clean-up materials • Ensuring emergency response procedures are in place and the construction site staff is adequately trained in spill prevention and clean up procedures. Spill kits and similar equipment will be provided on site. Minimisation: Control levels of dust during construction • Levels of dust will be reduced during construction by implementing the following measures: • The construction sites will be fully fenced to serve as a wind barrier and for security purposes • All soil that clings to the wheels of the trucks will be removed via spray of water before exiting the site • All hauling trucks for excavated soil into an approved disposal site must be fully covered to prevent any soil/dust blown during transit from the site • Ensure there is an adequate water supply available for dust suppression • Stockpiles will be suitably covered within the site to prevent any wind event to blow dust and soil • Site internal roads will be kept regularly damped down during the dry season, compacted or suitably surfaced to minimise dust emissions from vehicle use and • Speed limits up to 20kmph will be implemented throughout the site and site traffic will be minimised as practicable via security officers at the exit and entrance points	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
	C10	Terrestrial fauna	IFC PS6 EBRD PR6 Best Practice	Minimisation: Minimise period excavations are left, fence off and/or cover open excavations when not working, undertake periodic checks of excavations to remove any trapped animals • Deep excavations will be covered or fenced off to prevent the access of wildlife and people while not working (including at night). Twice weekly checks of open trenches and other excavations will be undertaken to identify any entrapped mammals. • Rescue of any entrapped animals will be undertaken with extra care to minimise animal stress and the risk of injury. For trenches that will need to be left open for a considerable time, install slopes or other escape measures for small animals at places that are not fenced of (where possible). This may reduce the need for twice weekly monitoring and therefore personnel costs considerably. Minimisation: Implement noise reduction measures and avoid / reduce artificial lighting to reduce impacts on animals during construction • Measures will be implemented across the works areas to reduce noise levels and disturbance to animals • Artificial lighting used on construction sites and camps will be shaded and directed downwards to avoid light spillage and disturbance to birds and other wildlife. Minimisation: Undertake a check for nesting birds before vegetation clearance (within 48 hours) • This action is only relevant where vegetation clearance activities cannot be avoided during the breeding season; main bird breeding season in the Project area is April to June. A check for nesting birds by a qualified ecologist will be undertaken within 48 hours of vegetation clearance. If breeding birds are discovered, then works will be postponed in that area until the breeding cycle is complete (this may take up to three weeks). A species-specific buffer zone (minimum 25 m) will be set up around the nest site following consultation with a qualified ecologist. Minimisation: Implement a vehicle movement plan to avoid/reduce bird and mammal injury/deaths through collision with construction and operational vehicles • Raise awareness of staff operating motor vehicles using inductions that includes instruction on the need to comply with speed limits to respect all forms of wildlife. • Recording of environmental incidents to monitor the need for additional preventative measures to be implemented alongside the current animal exclusion methods.	EPC Contractor	Construction phase
	C11	Prevention and minimisation of Alien Invasive Species (AIS)	IFC PS6 EBRD PR6 Best Practice	Minimisation: Prevent the spread of non-native alien invasive species • The likelihood of invasions by alien species is higher in habitats that are altered and disturbed. The presence of invasive species within the construction site should be	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing

				assessed before removal of excavation material from site by a suitably qualified ecologist
				• Preventative, control and monitoring measures will need to be implemented with regard to the following aspects of the Project:
				  ○ Packaging and movement of materials
				  ▪ Minimise traffic and the distance it has travelled;
				  ▪ Source goods/materials locally where possible; and
				  ▪ Contain any alien invasive species and report their presence.
				  ○ Vehicles and plants
				  ▪ Where AIS have been confirmed, 'as-new' wash-down is essential before entering non-infested areas of the site and after working in infested areas;
				  ▪ Train and raise awareness of all site personnel regarding alien invasive species;
				  ▪ Pressure wash vehicle tyres in a contained area and contain and destroy the residue if AIS are confirmed on site;
				  ▪ Record and report the presence of any alien invasive species.		

Air Quality	C12	Dust and exhaust emissions	IFC PS3 EBRD PR3 Best Practice National legislation	Mitigation measures in the Dust Control Plan and Environmental Management Plan prepared by the EPC Contractor include: • Any unnecessary soil moving/clearing should be avoided to minimize dust. • Access routes to the construction sites and especially unpaved project areas should be regularly sprayed with water sprinklers between 07:30-18:30 hours every hour. The frequency of watering can be adapted to the climate conditions accordingly (no watering during or immediately after rain, more frequent watering on hot days). The water is applied with sprinklers in a way that does not generate runoff yet minimizes dust occurrence. • All vehicles that generate dust due to transportation or construction works should move within a speed limit of 40 km/h speed limit signs are to be posted on site. All vehicles that are loaded with sand, soil, gravel or any other material are to be covered to prevent the load from spilling and forming dust. • All piling of materials/soils should be stabilized in a manner that minimizes the occurrence of dust by wetting the top layer. • All excavation activities should be organized according to wind direction. • Stockpiles of fine material such as sand, topsoil material, cement, etc. shall be protected from wind. Stockpiles must be located a minimum of 50m from storm water	EPC Contractor and The Sponsor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				drains or 30m if appropriately covered. Non-fines must be stored a minimum of 30m from surface water bodies or storm water drains. • Regular dampening down of stockpiles will be undertaken to suppress wind blow of fine material. Further mitigation in the form of covering will be used subject to daily visual assessment. • Travel route should be dampened using a bowser and dust screens utilised if necessary. • An adequate water supply shall be provided for dust suppression. • Dust generating activities shall cease during excessively windy periods. • Cover and/or maintain appropriate freeboard (+0.3m) on trucks or vessels hauling any loose material that could produce dust when travelling. • Sub-contractors shall regularly inspect stockpiles. • Excessive vehicular movement shall be avoided. • On-site and access roads shall be periodically maintained through spraying with water. • Vehicle speeds on unpaved roads, internal roads and perimeter roads shall be limited. • Make sure exhausts do not discharge directly at the ground and create dust clouds. • If necessary, clean haul roads and areas of hard standing of excessive dust. In addition to mitigation measures defined in the Dust Control Plan and Environmental Management Plan, mitigation measures to be considered for controlling air emissions from construction activities include: • Covers and/or control equipment will be used to minimize dust from material handling. • If there is a requirement for unpaved roads close to settlements to be used by vehicles, surface-binding agents may be used, options include salt or gravel to coat the road. • 20kph speed limit will be applied on unpaved surfaces close to settlements. • Vehicles will be kept clean, so that no dirt is carried on the vehicles into and out of the area. • Stockpiling of stripped surface material, e.g. rock, sand and soil, stockpiling of unwashed materials, will be limited. • Design of stockpiles will be optimized to maintain a low profile without a sharp change in shapes. • Wind breaks or dust protection systems (including sprinklers) should be built around the main construction activities where necessary and, if possible, near potentially dusty works to minimize the impact of nearby residential receptors.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Good practice should be applied for selection of Project vehicles that meet the latest emission standards (e.g. EURO 3 or US EPA Tier 2 emission standards) and maintained in a reasonable working order. • To reduce fugitive dust emission during vehicle operation on public roads and at construction sites, service roads and quarry/material borrow/storage sites, dust suppression methods (i.e. watering with water trucks, applying nontoxic chemicals, speed limits for mobile vehicles, using well-maintained vehicles/equipment) should be used. • Emissions from road and off-road vehicles must comply with national or regional programs. • Prior to operation undertake VOC monitoring at the existing fuel farm to understand the likely contributions to VOC concentrations to understand if the new fuel farm has the potential to create VOC exceedances as predicted by the modelling. • Ensure an effective monthly monitoring and effective grievance management on dust. Include contractual requirements to remedy any adverse impacts caused by non-compliance with the Dust Management Plan.		
Greenhouse gases	C13	Greenhouse gas emissions	IFC PS3 EBRD PR3 Best Practice	The following measures are suggested for implementation by the contractor to minimise the sources of emissions as far as possible: • Use the carbon reduction hierarchy to focus efforts on ‘build less’, challenging the requirement for materials and exploring alternative approaches. This could include use of recycled materials in construction where possible, and reuse of materials won on-site • Provide a specification of low embodied carbon construction materials (e.g. through the use of concrete replacers such as fly ash) • Adopt a whole-life carbon approach to design and selection of construction materials (therefore consider the embodied carbon of assets alongside their durability and operational efficiencies) • Implement appropriate waste management during construction works, adhering to the Waste Management Hierarchy • Source construction materials from the local area where possible to minimise the amount of construction traffic movements and consider whether certain items could be delivered by rail rather than road • Minimise construction related transport impact through enhancement of construction material and worker transportation logistics • Establish sustainable construction management practices to optimise energy efficiency measures during construction site work activities. This includes:	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				○ Toolbox talks for workers about switching off plant and equipment when not in use; ○ The use of energy zoning in construction site cabins to control energy usage; and ○ Regular servicing of plant and equipment; and use machinery which is powered using grid electricity rather than diesel or from portable generators. Grid electricity typically has a lower emissions factor, particularly as the grid decarbonises in the future.		
Noise and vibration	C14	Noise	IFC PS3 EBRD PR3 Best Practice National legislation	• Optimizing working routines and conditions for construction sites • Implementing periodic maintenance of construction machine/equipment • Limiting truck routes and speeds at locations where trucks work close to the receptors • Conducting noise monitoring at sensitive receptors during construction	EPC Contractor	Construction phase
	C15	Vibration	IFC PS3 EBRD PR3 Best Practice National legislation	• Routing of heavy vehicles away from residential streets or to areas with the least number of houses, • Spreading of activities which cause vibration over time so that multiple activities that generate vibration do not occur at the same time. When each vibration source acts independently, the total vibration level generated may be significantly lower. • Avoiding night-time activities. • Limiting activities that cause vibration to day-time hours in residential areas as sensitivity to vibration increases at the night.	EPC Contractor	Construction phase
Social	C16	Population	IFC PS2 EBRD PR2	No mitigation is required since there is no anticipated risks or adverse impacts. However, the following issues will be applied due to potential labor influx: • Trainings to be given: ○ The cultural and socio-economic situation of the region, ○ Social sensitivities, ○ GBVH ○ Measures which shall be taken to avoid social unrest and conflicts, ○ Documents on policies/procedures and ethical code/code of conduct will be signed by the workers who will be employed in the project to ensure receipt and knowledge on these. • Potential risks to local communities will be identified and a Code of Conduct (CoC) in local community relations will be prepared.	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• As a part of the Stakeholder Engagement Plan (SEP) to be prepared within the scope of the Project, it will be possible to monitor the complaints of residents from the construction workers.		
	C17	Land Use, Physical and Economic Displacement	IFC PS2 EBRD PR2	• There is a Corrective Action Plan prepared for the Project that identifies corrective actions for housing and livelihood supports that will be provided for PAPs impacted from Project's past land acquisition. • The corrective actions are built around four major principles. These are: ○ Avoidance of incremental impacts after lender's involvement. ○ Understanding and acknowledging gaps in compensations ○ Focus on mitigating ongoing adverse impacts as much as feasible and vulnerabilities from the past land acquisition process, starting from the most vulnerable and most impacted groups. ○ Continuous consultation and engagement through an active stakeholder engagement and grievance mechanism. • A Supplemental Livelihood Improvement Plan (SLIP) will be prepared which will identify implementation details of corrective actions for the housing and livelihood improvement measures that will be provided for PAPs impacted from Projects past land acquisition. The SLIP implementation will be based on additional needs assessment and vulnerability assessment studies. The supports envisioned in the CAP, will be converted into detailed programs and implemented accordingly. The SLIP implementation will follow a participatory approach also covering grievances. • Land acquisition report and CAP in Turkish will be disclosed during ESIA disclosure • Grievance mechanism will be taken into operation to record and manage any request/complaint.	The Sponsor	Construction phase
	C18	Livelihood/Agricultural Activities, Businesses and Wellbeing	IFC PS2 EBRD PR2	Regarding the impacts on the PAPs' housing areas and wellbeing as well as the impacts on the commercial entities, the mitigation measures to be taken are as follows: • Effective mitigation measures for the prevention of dust, such as the recommended frequency of watering, impermeable screening, speed control of vehicles etc. will be taken before harvest season in order to minimize the damage to farmers as much as possible. • Dust suppression measures will be carried out at more frequent intervals, anti-dust curtain barriers will be applied with an impermeable material, trucks will be ensured to comply with the speed limit. A cover will be applied to the wheels of the trucks against dust.The objective of mitigations for dust management is to avoid any livelihood impacts, if the mitigation measures fail to avoid impacts, there is a grievance	EPC Contractor and The Sponsors	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				mechanism available. The dust impact of the Project will be assessed through monitoring dust-related grievances reported to the Project grievance mechanism., Regular community meetings will be conducted. Mitigation measures will also include contractual requirements to remedy any adverse impacts caused by non-compliance with the Dust Management Plan. • • A Stakeholder Engagement Plan is prepared and there is an active grievance mechanism established to enable PAPs to raise their complaints and concerns. • A Community Health and Safety Management Plan is developed that includes mitigation measures for dust suppression management, traffic management and emergency plan. • For the traffic impacts, a Traffic Management Plan is developed. ○		
	C19	Employment and Economic Development	IFC PS2 EBRD PR2	• By maintaining the database of job applications, the place of origin of the candidates will be described. Local employment will be promoted. • Reducing the risk of construction activities for local communities also depends on the attitude and behaviour of employees. In this sense, Code of Conduct and guidelines regulating the relations of workers with local communities will be prepared and trainings will be given on this subject during induction trainings to ensure continuous and good relations with the members of the local community and affected parties.	EPC Contractor	Construction phase
	C20	Education	IFC PS2 EBRD PR2	• Traffic Management Plan defined sensitive receptors, such as schools, on the access routes to the Airport. Relevant mitigation measures including regular consultations with school administration, training of drivers with respect to the needs of the sensitive receptors are identified in TMP. • The Grievance Mechanism is established as part of SEP which will provide easy access for teachers and students to raise their complaints and concerns. • The Sponsor will liaise with local education facilities to ensure that the Project activities do not interfere with transport of students to schools; if limitations are unavoidable, The Sponsor will agree with local authorities on alternative solutions. • In order mitigate noise impacts, the Project as an immediate action, will identify and implement noise insulation programme for currently worst affected sensitive buildings such as schools starting from year 2025 in line with Noise Impact Management Plan.	EPC Contractor	Construction phase
	C21	Vulnerable Groups and the PAPs	IFC PS2 EBRD PR2	• Anti-dust curtain barriers will be applied with an impermeable material and with more frequent intervals until the completion of excavation works of the Project (expected in February 2025), when dust impacts will decrease.	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Dust Control Plan developed for the Project will be revised in line with the expectations of the PAPs such as better dust control (with all aspects). • Trucks will be ensured to comply with the speed limit. • A fender is being applied to the wheels of the trucks against dust. • A Stakeholder Engagement Plan is implemented and will be reported. • The vulnerable groups will be visited with special attention in accordance with the SEP and their problems will be solved quickly. • Regular meetings and interviews will be carried out. • The Grievance Mechanism will be established as part of SEP which will provide easy access for the vulnerable groups and the PAPs to raise their complaints and concerns.		
	C22	Gender Consideration	IFC PS2 EBRD PR2	• It will be ensured that Ethical Code of Conduct of the Sponsor and the grievance mechanism are disclosed to social receptors and stakeholders that might be affected from the construction activities of the Project. • The Sponsor staff will obtain trainings on how to handle GBVH-related cases and prevention of GBVH risks. The trainings will aim at including all employees, especially security personnel will be trained in this regard. • Grievance records will be reviewed by gender of the complainant and the subject of the grievance.	EPC Contractor	Construction phase
Occupational health and safety	C23	Construction safety management	IFC PS4 EBRD PR4	EPC Contractor has a well-developed construction OHS management system which will be applied for the construction phase of the Project, which is a ISO 45001:2018 certified health and safety management system. This system includes a number of management and safety procedures covering all OHS issues of the construction phase and consists of the following: • *The Construction Health and Safety Plan* sets out the roles and responsibilities of all the related parties in construction of the Project. This plan includes studies on the protection of health and safety conditions, elimination and management of occupational risks and accidents. In addition, basic rules for OHS training of the personnel involved in the project, informing them about dangers, taking their opinions and ensuring their participation will be specified. It also gives details on HSE trainings, accident and incident investigation and reporting, subcontractor management and monitoring of OHS and environmental performance and continuous improvement. As the activities of the EPC Contractor is classified as highly dangerous due to its NACE Code of 41 20 01, one full-time H&S specialist is employed/contracted per 250 employees. All subcontractors of the EPC Contractor sign a contract with the Common Health and Safety Unit.	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				In line with the *Occupational Health and Safety (OHSE) Training Matrix and Procedure*, a training matrix is going to be prepared during the early stages of the construction. 16-hour compulsory OHS trainings will be provided when a new employee is hired and to be refreshed annually. All employees are recruited after completing the orientation training on the Project HSE OHS system and their individual responsibilities. All employees working within the scope of the Project, including subcontractor employees, are required to immediately prepare a written notification of work accidents and occupational diseases, and submit the inspection report within 24 hours at the latest to the EPC Contractor OHS department in line with the *Accident And Incident Investigation And Reporting Procedure* of the EPC Contractor. According to the *Monitoring of OHS and Environmental Performance and Continuous Improvement Processes* EPC Contractor Management will issue OHS and environmental performance indicators to track key indicators such as incidents, failed attempts, OHS and environmental audits, behaviour-based safety observations, frequency rates, severity levels, OHS and environmental objectives achieved, diseases, tool-box talks, OHS and environmental meetings, OHS and environmental disputes, inspections, hours worked, etc. • *OHS and Environmental Risk Management Procedure* covers the evaluation of environmental dimension-impacts and OHS hazards and risks related to all activities of the project, including all construction, contracting, project management and support processes. The dangers and dimensions arising from the environment of the work area, as well as the elements such as service, food, accommodation, social facilities offered to the employees in the project, are also evaluated within this scope. • *Traffic Management Plan* was prepared to provide a process for the systematic management of risks associated with inside/outside of the workplace traffic by establishing a safe system of work comprising risk assessment, planning, equipment selection, training of the personnel, implementation, reviewing and auditing. • *Permit to work procedure* is a formal written system used to control certain types of work that are potentially hazardous by nature. A permit document specifies the method statement of the work to be carried out and the preventive measures and precautions to be taken. Permit to work forms an essential part of work safety systems for many construction and maintenance activities. They allow work to start only after a method statement has been defined and they provide clear records that all foreseeable hazards have been considered. • *OHS Inspection and Audit Procedure* aims to define the methods to be followed in evaluating the implementation and efficiency of the project OHS and environmental management systems, and to identify areas of improvement and corrective action.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• *Asbestos Handling*: Even though an initial asbestos survey has not been performed as there are no asbestos-containing building materials in the Project site, in case of any asbestos found, then all asbestos must be removed from a building or structure prior to demolition commencing. Asbestos handling will be carried out through a licenced contractor in line with Regulation on Control of Excavation, Construction and Demolition Waste and Regulation on Health and Safety Precautions in Working with Asbestos. • Other OHS Procedures are provided through a number of guidelines developed which includes: Work at Height and Fall Protection Procedure, Electrical Safety Procedure, Lock Out-Tag Out, Crane Rigging and Lifting Procedure, Fire Safety, Compressed gas cylinders, Hot Work Safety Procedure Scaffold Safety Procedure, Excavation Safety Procedure, Housekeeping, Material Transport, Storage and Handling Procedure, Control of Chemicals in the Workplace Procedure, Personal Protective Equipment Procedure, Dust Control Plan		
	C24	Covid-19 risks	IFC PS4 EBRD PR4	The following COVID-19 response arrangements are envisaged but not limited as below: • Risk assessment, • Provision of trainings to the employees • Provision of face masks • Ensuring proper use of mask, • Ensuring workplace conditions are in compliance with the regulatory requirements. • Ensuring disinfection on site and at the offices to be conducted regularly • Provision of ambulance availability on site • Provision of temperature measurement facilities at the entrances • Ensuring any worker who has positive results for Covid-19 tests are taken to a seven-day quarantine • Identifying the people who come into contact with the person who is positive for Covid-19 and directing them to the health institution for testing • Providing signages for entrances, workplaces for social distancing	EPC Contractor	Construction phase
	C25	Protection of Public Health During Demolition and Construction Works	IFC PS4 EBRD PR4	EPC Contractor has developed a community health and safety plan to provide detailed set of actions and clear responsibilities for management of the Project related impacts and risks that may affect the health and safety of the communities. The Plan is structured to provide community protection measures including but not limited by the following:	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Coordination with local authorities to design and implement traffic regulating means such as signage, illumination, right of way practices, use of speed reducing ramps, use of flagmen, etc. as appropriate to specific locations and the time of day. • Visual inspection of the mitigation measures to ensure that they are in good condition. • Prohibition of vehicles from using roads other than identified routes. • Implementing a speed limit of 20 km/h for construction trucks and vehicles within community areas. • Ensuring speed limits set by relevant national legislation are complied with on regional roads and national roads. • Restriction of movement of construction equipment outside the fenced construction sites. • Using top covers while transporting excavation materials with trucks when using public roads to prevent debris spills. • Ensuring all safety requirements for transportation of hazardous materials are complied with. • Restriction of the operation of heavy vehicles and equipment to those that are competent (licensed and trained as required). • Provision of specialized training to personnel that will operate heavy vehicles and equipment and to drivers of personnel transport vehicles. • Ensuring the subcontractors provide same level of training to own personnel. • Provision of insurance for drivers and vehicles involved in the project. • Conducting periodic medical checks for drivers/operators working on the Project site. • Demarcation of construction area borders by appropriate means such as fences • Installation of informational banners, providing relevant information on construction activities. • Implementation of the Emergency Plan • Implementing the EPC Contractor's Grievance Mechanism to respond to related grievances in a timely manner. • Implementation of the Air Quality and Noise Management Plan • Implementation of dust suppression activities such as; ○ Water spraying of access roads and loading/unloading areas during dry seasons at least hourly (this number can be increased or decreased considering the work load, season and air quality monitoring results),		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				○ Water spraying topsoil stockpiles, if there will be any in the project site, in windy seasons at least once a day (can be increased or decreased considering the seasonal changes, vegetational situation of topsoil and monitoring results), ○ Water spraying materials to be transported by trucks and/or use of plastic covers whichever is applicable considering the weather conditions and transportation routes, ○ Tire washing for trucks exiting the work sites, ○ Drop height limitations for loading of materials to trucks, ○ To cover the top of the truck bed to minimize the dust generated due to the transportation of the excavated material, which is currently being implemented on site. • Regularly maintain access roads and haul roads. • Do not allow vehicles to use undesignated roads and ban off-road driving. • Immediately clean any spilled excavation material. • Do not allow heavy machinery and trucks to run engines on when not in use to minimize gaseous emissions. • Implement a strict maintenance program for heavy machinery and vehicles to minimize gaseous emissions. • Maintenance program of heavy machinery and vehicles will be developed after the machinery arrives on site, considering the manuals and suggested maintenance periods of equipped machinery, before this machinery start any work on site. • Implement access restriction measures through installation of safety barriers, fences and cautionary signage. • Use properly trained security guards where possible to implement access restrictions. • Provide trainings to the security guards on regarding protection of the public health and safety (including but not limited to human rights, incident management, handling GBVH cases, and effective communication). • Ensure that the security guards obtain relevant trainings regarding protection of the public health and safety. Monitor the progress regularly and provide refresher trainings when necessary. • In consultation with representatives of local communities, identify safe access routes around construction sites. • Install physical safety measures such as toe boards, brick guards and nettings around structural constructions and scaffolding.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Under no circumstances, allow excavation material and construction material to be stored outside construction boundaries, unless area is designated specifically for storage and relevant measures listed below are taken prior to any storage: • Install barriers, fencing and other access restriction means • Install cautionary signage, flashing lights and other visual cautionary measures as required • Install sufficient illumination for night-time work. • Holes which present a hazard must be covered and barricaded. • Demolition and construction works will be held away from the closest residential buildings, which are located approximately 40 meters across the roads surrounding the AYT to the west and south including a dormitory for male students.		
	C26	Preventing health and safety risks	IFC PS4 EBRD PR4	All occupational and community health and safety risks at the construction phase are defined as moderate and high and should be mitigated through the following control measures: • EPC Contractor health and safety management system consisting of a set of OHS rules, including management procedures, distribution of duties and responsibilities between management, staff and OHS manager, and monitoring measures will be enhanced and implemented in full scale. Despite EPC Contractor OHS management system being under development and based on examples of good industry practice, these guidelines will be updated to consider national OHS requirements and included into the Project Method Statement in a form of the Construction OHS Plan envisaged by the national regulations. • EPC Contractor will organise HSE management in the close cooperation with The Sponsor health and safety, labour, and emergency response teams. Engagement of state experts for possible OHS risks and gaps assessment will help to reduce risks magnitude and gaps with local regulations. • EPC Contractor will incorporate a clause in the tender documents and standard contractual agreements with contractors / sub-contractors requiring that they comply with national OHS and labour requirements. EPC Contractor OHS standards established to the Project, and IFC Good Practice Note: Managing Contractor's Environmental and Social Performance (2017). • EPC Contractor will appoint an onsite Occupational Health, Safety and Environmental Manager, alongside Occupational Safety Experts, with responsibility for OHS management, managing workers grievances, monthly reporting to EPC Contractor on OHS performance and accidents..	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• EPC Contractor and contractors provides trainings on the occupational safety culture for managers and they will demonstrate their commitment to safe work when visiting project site and decision making. All construction workers will be trained and have the necessary knowledge on occupational hazards and know how to control them. • EPC Contractor will ensure that all OHS legal requirements and specific OHS policies and procedures are followed by the contractors and their staff. • EPC Contractor monitors contractors' OHS performance through periodic audits, as well as analyse the contractors' reporting on the OHS results. • Contractors are required to record all incidents and will report them in writing to the EPC Contractor. EPC Contractor will participate in the incident investigation commissions of Project contractors. • All contractors will be aware that EPC Contractor monitors all activities and can charge them with failing to perform their contractual responsibilities to comply with OHS requirements. • COVID-19 Management Plan for the construction site will be developed considering the national requirements and mitigation measures developed on the examples of a good industry practice and provided in this ESIA Report.		
	C27	Gender Considerations during Construction Phase	IFC PS4 EBRD PR4	• The items in the Ethical Code of Conduct on gender equality and prevention of GBVH risks will be disclosed to all employees through interactive communications and detailed explanations. • Trainings on gender equality and prevention of GBVH risks will be given to the workers of the construction phase of the Project as a part of induction trainings. The Ethical Code of Conduct ill be included in the training content and disclosed during the trainings. • The trainings will aim at including all employees, especially security personnel will be trained in this regard. • Measures will be taken to reduce the risks in the working environment (for example, separate toilets and bathrooms for male and female employees, separate rooms such as the gym available for leisure times, etc.). • The working areas will be regularly inspected and monitored to maintain the conditions to prevent GBVH risks. • Internal grievance mechanism will be accessible and confidential for female employees of the Sponsor and its contractors and suppliers to prevent GBVH cases	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				with the possibility of anonymous application. Staff handling GBVH complaints will be trained to handle GBVH complaints in a confidential and safe way. • Grievance records will be reviewed by gender of the complainant and the subject of the grievance.		
Cultural Heritage	C28	Tangible Cultural Heritage	IFC PS8 EBRD PR 8	The following mitigation measures about the Ancient Water Canal 1 have to be conducted before the construction activities. • Antalya Regional Council for the Conservation of Cultural Property was informed through DHMI. Further tailored consultations with the Council will be held during disclosure. Depending on the potential impacts of the project on the cultural heritage assets for upcoming periods, the Antalya Regional Council for the Conservation of Cultural Property may request additional measures (salvage excavations, geophysics surveys, technical drawings etc.). • In accordance with the official opinions and decisions of the Antalya Regional Council for the Conservation of Cultural Property, construction-related physical effects in the archaeological area must be avoided., • Marking the identified locations as archaeological sensitive area on project/construction drawings. • Revise the boundaries of the Project area to avoid the identified archaeological site and reflect these on master plan, • Archaeological monitoring will be held during the ground disturbing activities within and around the registration borders of Ancient Water Canal 1. The following mitigation measures about Ancient Water Canal 2 have to be conducted before the construction activities. • Holding tailored consultations with Antalya Regional Council for the Conservation of Cultural Property, • Complying with the decision taken by the Antalya Regional Council for the Conservation of Cultural Property, • Marking the identified locations as archaeological sensitive area on project/construction drawings. The following mitigation measures about the Ancient Water Canal 3 have to be conducted before the construction activities. • Antalya Regional Council for the Conservation of Cultural Property was informed through DHMI. Further tailored consultations with the Council will be held during disclosure. Depending on the potential impacts of the project on the cultural heritage assets for upcoming periods, the Antalya Regional Council for the Conservation of	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				Cultural Property may request additional measures (salvage excavations, geophysics surveys, technical drawings etc.). • In accordance with the official opinions and decisions of the Antalya Regional Council for the Conservation of Cultural Property, construction-related physical effects in the archaeological area must be avoided. • Marking the identified locations as archaeological sensitive area on project/construction drawings. • Revise the boundaries of the project construction area to avoid the identified archaeological site and reflect these on master plan. • Archaeological monitoring will be held during the ground disturbing activities within and around the registration borders of Ancient Water Canal 3. The following mitigation measures about the Ancient Quarry have to be conducted. • Antalya Regional Council for the Conservation of Cultural Property was informed through DHMI. Further tailored consultations with the Council will be held during disclosure. Depending on the potential impacts of the project on the cultural heritage assets for upcoming periods, the Antalya Regional Council for the Conservation of Cultural Property may request additional measures (salvage excavations, geophysics surveys, technical drawings etc.). • In accordance with the official opinions and decisions of the Antalya Regional Council for the Conservation of Cultural Property, construction-related physical effects in the archaeological area must be avoided, • Marking the identified locations as archaeological sensitive area on project/construction drawings.		
	C29	General	IFC PS8 EBRD PR 8	• A complaint mechanism will be established within the scope of the Project, through which complaints related to cultural heritage can be submitted and the complaints and producing solutions are periodically monitored. • In case of a cultural heritage related salvage and/or test excavation (including restoration/conservation) required, it should be ensured that necessary staff, technical assistance, other necessary services and equipment are provided. • An archaeologist (as a cultural heritage monitoring specialist) will be employed under the project organisation chart or a cultural heritage monitoring consultancy service should be assigned to make daily archaeological monitoring during the construction phase. The mobilisation of the monitoring archaeologists or consultancy service will be made before the construction activities of the project, and the name and posts of the archaeologists or consultancy service will be specified in the organization chart of the project in all documents.	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• The cultural heritage/archaeological monitoring expert/s will work with the equipment operators and have authority to stop the work. The expert/s will accompany all ground disturbance activities of the project. • The expert/s will instruct the operator to stop the work in case of a chance find. Continuation of the ground disturbance activities after a chance find will also be under the authority of the expert/s. • The expert/s of the Project will train the employees about Cultural Heritage Management Plan and Chance Find Procedure. • The expert/s will ensure that Cultural Heritage Management Plan and Chance Find Procedure are adequately enforced during all ground disturbance activities. • The Cultural Heritage Management Plan and its sub-procedure (The Chance Find Procedure), which were prepared to eliminate, minimize and prevent the effects of the project construction phase on cultural assets, should be known and implemented by all parties involved in the Project.		
Waste and Resources	C30	Resource management	IFC PS3 EBRD PR3 Best practice	• Efficient planning of the construction activities to minimize materials and optimizing the use of resources to avoid potential wastage • Establish systems and verification practices (i.e. Purchasing/Supplier Evaluation) to identify where the supply is coming from and the habitat type of the source area and to limit procurement to suppliers that can demonstrate that they are not contributing to significant conversion or degradation of natural or critical habitats where possible. • Assess environmental and social performance of a supplier to ensure that materials to be sourced and disposed of with sustainable principles • Sourcing materials from local suppliers wherever possible so that construction materials to be sourced from locations (material plants/borrow pits etc.) as close as possible to the Project site to minimize impacts of transport • Institute procurement measures for material supply that recognize opportunities such as ordering the correct number of materials to be delivered when needed, reducing the amount of packaging used by suppliers and establishing a take back system with suppliers • Engage with suppliers to substitute raw materials or inputs with less hazardous or toxic materials wherever economically and technically feasible	EPC Contractor	Construction phase
	C31	Waste and wastewater management	IFC PS3 EBRD PR3	Techniques for prevention, minimization, and control of waste related impacts during the construction phase include: • The contractor will segregate and separate the wastes properly to encourage recycling of some useful waste materials.	EPC Contractor	Construction phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Hazardous wastes will not be mixed with other solid waste generated and will be managed by way of incineration or landfilling. • Waste will be collected from the site at least once in 24 hours and when temporarily kept on site it will be covered to minimize nuisance odour and vermin. • The contractor and DHMI will work together to facilitate proper waste handling and disposal from the site. • Providing adequate secondary containment for fuel storage tanks and for the temporary storage of other fluids such as lubricating oils and hydraulic fluids, • Using impervious surfaces for refuelling areas and other fluid transfer areas • Training contractor and subcontractor workers on the correct transfer and handling of fuels and chemicals and the response to spills • Providing portable spill containment and clean up equipment on site and training in the equipment deployment • Assessing the contents of hazardous materials and petroleum-based products in building systems (e.g. PCB containing electrical equipment, asbestos-containing building materials) and process equipment and removing them prior to initiation of decommissioning activities, and managing their treatment and disposal • Assessing the presence of hazardous substances in or on building materials (e.g., polychlorinated biphenyls, asbestos-containing flooring or insulation) and decontaminating or properly managing contaminated building materials Techniques for prevention, minimization, and control of wastewater related impacts during the construction phase include: • Applying good construction practices • Implementation of the construction phase Waste Management Plan • Obtaining necessary permits for connection to the municipal sewer system during construction, if necessary • Monitoring and recording keeping of wastewater discharges		
Traffic	C32	Construction traffic management	IFC PS4 EBRD PR4	General traffic management for increased traffic and quality of roads • A construction Traffic Management Plan (TMP) has been developed by the EPC Contractor which provides a guide as to the type of measures which will be needed to mitigate the impact of construction traffic movements on the local road and highway network and on the local communities as well as to enhance the efficient transport of supplies and materials to the Project site, while minimising congestion and disruption. • The following measures are defined for all drivers entering the Airport area in the TMP and are considered adequate:		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				○ Any unsafe or irresponsible actions by drivers are identified, corrected and reported to HSE department. ○ All drivers shall undertake a general safety induction and safe driving awareness prior to obtaining the vehicle pass. ○ All drivers of subcontractors to receive HSE induction and to comply with the EPC Contractor's HSE and TMP requirements. ○ Delivery drivers will receive a hardcopy (leaflet) of basic instructions prior to entering the site. ○ All operators and delivery drivers will be required to wear full PPE such as hard hat, safety shoes, safety glasses and visible vests when outside of their vehicles. ○ All drivers will be briefed about the compliance with speed restrictions at the site entrances through tool box talk and induction programme. • Contractor will comply with the national regulations and ensure that the construction site is properly secured and construction related traffic regulated. • Complaint venues including phone numbers will be placed on the back of all trucks and construction vehicles of EPC Contractor and sub-contractors • The Project will ensure the implementation of Air Quality Management Plan and the Noise and Vibration Control Plan to mitigate any potential adverse impacts to the environment and communities resulting from air and noise emissions related to construction traffic. • Traffic and transport management will be carefully planned and performed considering the potential developments in the vicinity of the Project site. Hence, the probable congestion and traffic accidents should be prevented (peak and off-peak hours). • All vehicles will enter and exit the Project site in a forward direction. Vehicle manoeuvring will not be allowed on public roads. • Earthen material vehicle movements will avoid peak times. Road safety • Sensitive receptors, such as schools, on the access routes to the Airport will be identified and defined in the TMP together with relevant mitigation measures including regular consultations with school administration and representatives of school associations, training of drivers with respect to the needs of the sensitive receptors. • Good site visibility will be ensured in order not to allow drivers lines of sight to be obstructed by structures.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Disruption to road users will be minimised as far as possible by utilising the Project site for the storage of materials and by providing onsite parking to reduce congestion on the road during materials delivery. • Ongoing consultation will be undertaken with stakeholders (especially with neighboring facilities and muhktars/district representatives) to inform them about the construction program and transportation routes. Nuisance • Watering for dust prevention will be conducted at predetermined intervals (i.e. hourly as defined in the Dust Management Plan). • The Dust Management Plan will be improved to cover remedy methodology for impacts on livelihoods and health, especially vulnerable i.e. elderly, and people having illnesses. A methodology on detecting these, recording and assessing as well as compensation/remedy will be identified in the plan and further implemented.		

Table 4-4: Operation phase ESMP

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
General	O1	Environmental and Social Management System	IFC PS1 EBRD PR1	Operation phase Environmental and Social Management System (ESMS) will be developed in line with international good practice and guidelines. At present, the following plans are identified which will be part of the operation phase ESMS: • Community Health and Safety Plan • Emergency Response Plan • Operation Water Management Plan • Air Quality Management Plan • Noise Management Plan • Waste Management Plan • Hazardous Material Management Plan • Traffic Management Plan • Cultural Heritage Management Plan • Chance Finds Procedure • Contractor Management Plan • Corrective Action Plan and Supplemental Livelihood Implementation Plan • Stakeholder Engagement Plan	The Sponsor	Prior to operation
	O2	Permitting	National legislation	All necessary permits/consents/approvals will be obtained in accordance with the national legislation.	The Sponsor	Prior to operation
Water Quality, Hydrology and Hydrogeology	O3	Protection of surface water and groundwater	IFC PS3 EBRD PR3 Best Practice National legislation	• Ensuring continued used of specific zones for loading and unloading (if concerning toxic substances), including refuelling and maintenance of support vehicles. These areas shall be impermeable where the collection and disposal of any spills or leaks can be done so easily. • Vegetating exposed surfaces to limit sedimentation • Implementation of a groundwater quality monitoring regime in accordance with Regulation on the Protection of Groundwater against Pollution and Deterioration and 2006/118/EC Groundwater Directive in quarterly periods at the same locations monitored during the construction phase with records maintained to allow tracking of conditions. • In case of an emergency spillage situation, emergency pollution prevention plans will be maintained to the appropriate international standards, with training given to staff on how to use the kits as well as general environmental awareness training to all staff to encourage incident reporting if a potential problem is spotted.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
	O4	Efficient use of water	IFC PS3 EBRD PR3 Best Practice National legislation	The Sponsor already implements the below listed actions to use water efficiently for landscape activities: • Plant species with high water consumption (such as *Eucalyptus Globulus, Salix Babylonica*) were not used in the vegetation created with the aim of protecting the water consumption of groundwater in the airport. • Plants with low water consumption (such as *Washingtonia Robusta, Phoenix Dactylifera*) were preferred instead of plants that consume a high amount of water. • Landscape irrigation activities are carried out at a time when the sun's rays will not cause evaporation, • Irrigation is done as needed by the plants. • Use of smart systems in landscape irrigation. (Sprink system, drip irrigation system, etc.) • Adjusting the settings of the sprinklers according to the direction of the wind during the landscape irrigation process. In order to minimize the consumed water and use the water more efficiently, The Sponsor will investigate the methods to increase the efficiency of the above listed measures together with alternative actions such as; • rainwater harvesting by collecting runoff from paved areas, rooftops, and open areas within the airport. • recovering Air Handling Units (AHU) of the air conditioning system condensate and feeding it to the cooling tower circuit thus enhancing water use efficiency of the chiller plant.	The Sponsor	Operation phase
Soils and Geology	O5	Protection of soil quality	IFC PS3 EBRD PR3 Best Practice	• Quality of the underlying soil will be preserved through implementation of effective hazardous material and waste management procedures. Materials and wastes will be handled according to the Hazardous Material Management Plan and Waste Management Plan. • Fuels, oils and chemicals will be stored on an impervious base protected by bunds to 110% of capacity. Fuel will be stored in designated areas. Any spillages from handling fuel and liquids will be immediately contained on site. • Spill kits will be available to deal with accidental spillages or leaks to ground. • Potentially contaminated materials will be removed from site as soon as practicable for authorised disposal and suitable treatment. • It will be ensured that hazardous material transport procedures follow the applicable national and international standards and guidelines.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• It will be coordinated with the fuel farm operators that the fuel farm is operated in line with the Seveso Directive. The fuel farm will be audited against Seveso requirements prior to its commissioning.		
Climate change	O6	Climate change	IFC PS3 EBRD PR3 Best Practice	• Inspections, maintenance and renewals of surfaces, structures, buildings and equipment for signs of deterioration due to heat and following extreme weather events such as heatwaves, storms and surface water flooding • Periodic review of climate projections ahead of major upgrades and renewals to inform specifications of equipment to be installed • Consideration of air temperatures and air pressures within scheduling of flights, aircraft payload limits and aircraft design specification • Establishing heat trigger levels at which flights are rescheduled or cancelled • Scheduling of routine inspections at cooler times of day and routine replacements at times of year less likely to encounter weather extremes • Robust management plans for extreme weather conditions, including heatwaves, storms and surface water flooding • Identification or creation of cool refuges to be used for staff and passengers as part of first aid response • Flight scheduling to consider higher future temperatures and working and travelling conditions. Flight cancellations and passenger management in extreme heatwaves that create unsafe working conditions • Emergency planning for wildfires, including evacuation protocols, and placement of fire suppression equipment • Contingency planning for loss of external power and communications including ground and passenger handling • Develop a water resource management plan to minimise the quantities of groundwater that is required for abstraction, and maximise water efficiency of the airport • Ongoing management plans and conservation in locally affected areas. Policies and plans for biodiversity management should take the risks of climate change into consideration, especially droughts and floods • Preparation of a traffic management plan that takes the risk of increased heatwaves and extreme weather events in the future into consideration • Consideration of climate change within future building upgrades and designs, to include adequate shading and cool spaces, including cool refuges as part of first aid facilities. Buildings should provide adequate ventilation such as through selection of appropriate	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				materials, light colours for painting and cladding, passive cooling, indoor biophilic designs and HVAC systems for extreme temperatures • Monitoring of air quality and creation of management plans and processes if quality levels are deemed to be unacceptable. This could include changes in traffic management to reduce emissions and exploring clean air solutions for airport activities such as a green ground fleet and improved public transport		
Biodiversity	O7	Enhancement of grassland within the airport	IFC PS6 EBRD PR6 Best Practice	• Enhance the habitat for biodiversity via avoiding cutting grasslands during the flowering / fruiting periods of most species in summer as well as reviewing and (if possible) improving the grassland and pesticides management procedures. Other measures to manage the bird strike risk will need to be implemented in parallel. • DHMI will be responsible for operational measures and improvement studies.	The Sponsor	Operation phase
	O8	Management of bird strikes	IFC PS6 EBRD PR6 Best Practice	• Additional, non-habitat measures will be implemented to reduce the bird strike risk. This may involve bird scarers (firing of bird scaring cartridges, broadcasting bird distress signal), canon shooting and/or using radar equipment. Currently, the existing airport uses a range of different methods to manage and control wildlife to avoid strikes. These include alarm / siren sounds, gun blasting, and disinfection / pest control among other methods. DHMI will be responsible for operational measures and improvement studies.	The Sponsor	Operation phase
Air quality	O9	Air emissions	IFC PS3 EBRD PR3 Best Practice National legislation	• To reduce or eliminate APU, GPU and air conditioning unit usage, 400-Hz fixed electrical ground power, pre-conditioned air (PCA) at gates/maintenance areas will be provided • To emissions reduction and fuel savings, driving distances through route planning will be reduced and unnecessary idling of equipment will be avoided. • Charge stations will be installed at land side car parking areas and air side terminal boundaries. • All other Scope 1-2 carbon emissions will be effectively managed and other relevant stakeholders will be cooperated. • Emissions are reported to be reduced by up to 97 percent using a variety of best available techniques for fuel storage tanks. • Undertake VOC monitoring at the proposed fuel farm to monitor impacts at nearby receptors	The Sponsor	Operation phase
Greenhouse gases	O10	Airport buildings and ground operations	IFC PS3 EBRD PR3 Best Practice	• Attempt to minimise waste throughout airport buildings and during ground operations through a reduction of resource use and optimising the rate of recycling & reuse. This can be achieved by continuing to set ambitious waste & recycling targets which are continually monitored and re-assessed. Staff should be regularly reminded of these targets to embed waste minimisation into decision making. Tenants of airport shops	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				should be encouraged to introduce waste reduction policies such as plastic bag charges, plastic bottle deposits & discounts for using reusable cups. • Periodical maintenance of on-site equipment and vehicles to ensure optimal operational efficiency. Although the airport will already regularly carry out maintenance on its equipment and vehicles, considerations of the GHG impact of inefficient equipment & vehicles should also be factored into the maintenance schedule. Preventative testing & maintenance on equipment & vehicles which are likely to produce a high level of emissions should be undertaken. Conversations with manufactures can determine optimal efficiency rates and maintenance schedules. • R-134a and R-410a refrigerant gases are to be used within the air-conditioning system. Measures should be put in place to use refrigerant gases with less global warning potential (GWP) where possible, and to equipment to reduce leakage. Replacements such as R-513A & R-1234ze for R-134a and, R-32 for R-410a are low-cost refrigerants which have a much lower GWP than 134a and R-410a. They are simple to retrofit and available on the market, allowing for a reduction in emissions associated with refrigerants or the project.		
	O11	Surface access	IFC PS3 EBRD PR3 Best Practice	• Support an increase in efficient and convenient sustainable transport use to, from and across the airport for both passengers and workforce. Infrastructure, which supports low carbon modes of transport should continue to be installed at the airport. Conversations with public transport providers should be held to ensure accessibility to the airport via public transport is easy, with frequent services. This will encourage the public to take public transport over private modes of transport. Ambitious targets for electric vehicle use within the airport adopted and workplace schemes which subsidised electric vehicle purchase should also be considered to mitigate emissions. • Consider an emissions-based access charge around the airport. An emission-based access charge would encourage the uptake of low carbon transport modes for passengers and staff. The charge could also generate money for the airport. • Implement measures to challenge the need for the purchase of more airport related combustion vehicles. Measures could include, considering electric alternatives where possible, challenging the need for new vehicles & increasing the maintenance of existing vehicles to ensure they last longer.	The Sponsor	Operation phase
	O12	Air transport	IFC PS3 EBRD PR3 Best Practice	The airport could assess their influence to: • Encourage the development and adoption of more fuel-efficient aircraft. Continue to develop relationships with airlines & aircraft manufacturers and consider measures such as priority slots or a reduction in duty fees for the most efficient of aircraft.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Encourage the take-up of sustainable aviation fuel by airlines. The airport should engage in discussions with airlines & aircraft manufacturers to understand what is required by the airport to support sustainable aviation fuels i.e., the appropriate infrastructure required. • Continue to attempt to improve efficiency of airspace by continually setting ambitious targets, where appropriate		
Noise and vibration	O13	Noise	IFC PS3 EBRD PR3 Best Practice	Land use planning • The remaining non-urbanized regions around airport should be planned as commercial or remain as agricultural areas. Not allowing more residential planning in the vicinity of the airport seemed a valuable approach. • Reducing the portion of sensitive receivers mainly dwellings and schools, in new land use plans are recommended at the vicinity of airport. Mainly commercial or industrial structures need to be preferred. • For residential locations seriously exposed to environmental noise sources from airport activities implementing insulation programs will surely reduce the noise levels inside the buildings. Nonetheless; limiting values defined for environmental noise in; EU regulations, WHO guidelines and RAMEN are determined for façades (outside) of the sensitive locations. For LTO noise, due to airside operations falling under the responsibility of DHMI, the implementation of below mitigation measures will fall on both the DHMI and Sponsors • Development of a noise management program prior to 2024, which should include defined noise monitoring, mitigation measures both planned, and alternatives, noise targets, complaint monitoring, effective grievance management on noise and assessment of possible noise abatement routes. • Continuous noise monitoring in support of the noise management program to confirm and record noise levels and to identify if further mitigation is required. In addition to 5 stations already set up by DHMI, up to 7 additional noise monitoring stations will be set up. • Cooperation with local authorities through regular updates of the noise maps and noise action plans, implementation of the national regulations to new built houses in regards to enhanced technical requirements for noise insulation. Additional mitigation measures to address the air side noise impacts from aircraft LTO and ground operations (third party impacts) include: • ICAO-A procedures will be applied. While this approach, as per the ESIA reports, will not reduce the noise levels significantly at sensitive receiver locations (because the	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				impact significance levels do not change dramatically with this application), it will provide additional relief from noise nuisance. Façade Treatment Programme • According to the results of the noise monitoring studies, providing that noise limit exceedances are observed, buildings with exceedance will be detected and included into a noise insulation programme. Programme includes replacement of the window structures with triple glazed glass and strengthened window casings and roof insulation if necessary. Noise insulation program is not valid for buildings constructed after start date of the project. These buildings are covered with new Turkish legislation in regard to technical requirements against noise. • Noise insulation scheme to be implemented for local residents impacted by exceedances of national night time outdoors noise standards with a target noise level of at least 40dBA indoors. While noise insulation program has to be implemented in line with monitoring and noise management undertaken by DHMI and in cooperation with local authorities, the cost will be covered by projects Sponsors. • With gradual capacity increase, the number of buildings exceeding national nighttime outdoors noise standards will increase. Noise insulation eligibility boundaries will enlarge every 5 years. The program will have clearly established steps and eligibility criteria and applications form public will be verified against ongoing noise monitoring values and supported by site visits. • A budget of 3 million euros is reserved for façade insulation program over 15 years. It is expected that, annually 150-200 dwellings can be supported in this program. A support budget of 1000-1500 euros/dwelling can be allocated depending on the bedroom window size and quantity. Operational restrictions • Analyzing aircraft movement data shows us that there is no specific aircraft type that causes much more noise disturbance than other aircraft. As a matter of fact that majority of the aircraft type used in Antalya Airport is found out to be most commonly used commercial Airbus and Boeing aircraft. Thus, no aircraft specific measures could be generated. • Reducing and spreading some portion of the arrival activities of night- time throughout the day time • Reducing and spreading some portion of the departure activities throughout the day time		
Social	O14	Population	IFC PS2 EBRD PR2	• As a part of the SEP, it will be possible to monitor the grievances during the operation phase of the Project.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
	O15	Neighbouring communities	IFC PS2 EBRD PR2	• In case of the problems that may occur in traffic, (i.e., any improper management of internal traffic flow (circulation routes for pedestrian, visitors/personnel cars/shuttles, logistics), traffic load increase on local roads and increased risk of traffic-related accidents or injuries on the transportation routes), The Sponsor may seek alternative solutions with other relevant institutions (such as directorate of highways or local municipalities) to lower speed limits and increase traffic control measures in addition to effective implementation of Traffic Management Plan). • There is a Noise Insulation Programme that will continue to be implemented during operation phase for the buildings in identified noise impact zone. • There will be additional noise monitoring stations installed to monitor noise impacts.	The Sponsor	Operation phase
	O16	Employment	IFC PS2 EBRD PR2	• The Sponsor has a Contractor Management Plan to regular the relations of the different business bodies operating at AYT. • Potential risks to local communities will be identified and a CoC in local community relations will be prepared. • As a part of the SEP, it will be possible to monitor the grievances of the people during the operation phase. • Quick resolution of existing problems with the grievance mechanism will increase stakeholder participation and satisfaction as well as the customer satisfaction. • The Sponsor will ensure all stakeholders' participation in decision-making processes that will affect the relevant parties and will inform them of the changes and developments in the practices in a timely manner.	The Sponsor	Operation phase
	O17	Livelihood and Tourism	IFC PS2 EBRD PR2	• To maintain and ensure an increase in the local employment, job announcements will be shared with effective means to the local communities. • Regular communications will be held with the relevant local institutions and NGOs for skilled and semiskilled personnel need. • The local procurement at the possible extend will be maintained and increased.	The Sponsor	Operation phase
	O18	Education	IFC PS2 EBRD PR2	• There have been no reports of schools being exposed to dust. However, if dust related problems occur, the same mitigation measures proposed for the dust impact on housing and businesses can also be applied for the schools. • Noise impact assessment and noise isolation around sensitive buildings such as schools will be prioritized starting from year 2023. Noise impacts will be monitored throughout operation period.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
	O19	Vulnerable Groups	IFC PS2 EBRD PR2	• In order for hearing and visually impaired passengers in need to benefit better from "Smart Step App", they should be aware of the application. Therefore, the information on the application should be announced more effectively within the airport (i.e., through pop-up messages, with visual and auditory announcements). • For the elderly, systems will be developed that will allow them to easily mobilize and feel safe when alone. • Availability of complaint forms in the Braille alphabet for visually impaired passengers will be announced in appropriate means.	The Sponsor	Operation phase
	O20	Gender Consideration	IFC PS2 EBRD PR2	• It will be ensured that Ethical Code of Conduct of the Sponsor and the grievance mechanism are disclosed to passengers and relevant stakeholders. • For the passengers, the signs will be established in the Airport building in case of GBVH and human trafficking. Instructions will be placed in certain areas showing how to call for help. • The Sponsor staff will obtain trainings on GBVH-related risks and human trafficking issues. The latest information on human trafficking will be shared with the Sponsor staff to use in times of emergency. • The trainings will aim at including all employees, especially security personnel will be trained in this regard. • Grievance records will be reviewed by gender of the complainant and the subject of the grievance. •	The Sponsor	Operation phase
Occupational health and safety	O21	Operational health and safety risks	IFC PS4 EBRD PR4	The Sponsor and its contractors will comply with the international standard ISO 45001 requirements and complete OHS division with OHSMS manager. The Sponsor should ensure to continue to apply the following plans and procedures and to keep them updated according to the needs of the project: • The Sponsor OHS Policy is developed, approved, and disclosed, sets achievable and measurable goals and objectives, and allocate OHS duties and responsibilities of The Sponsor employees. • OSHMS should be a part of The Sponsor corporate management system, along with the quality, environmental and social management systems. OHSMS functioning must be provided with sufficient and qualified human and financial resources. • OHSMS should not depend on the production needs or economic performance of The Sponsor. Top management of The Sponsor should demonstrate their commitment to occupational safety (including prevention of GBVH risks at work).	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• OHSMS should be targeted at increasing labour productivity but not only on risk control. • OHSMS including OHS targets and goals should be updated and improved at continuous basis. • Health and safety risks (including GBVH risks) should be managed by suitably-qualified and well-trained officers. OHSMS officers' responsibilities and competencies must be documented and approved by The Sponsor CEO. • Measures to achieve The Sponsor OHS targets and goals should be carefully planned. All planned actions and expenses must be reflected in the relevant documents of The Sponsor (plan for maintenance and repairs, procurement plan, construction plan, budgets of The Sponsor and departments). • To ensure The Sponsor OHS conditions and in particular the OSHMS performance, top management should periodically assess the OHS performance, and develop a set of corrective actions if necessary. • In addition, participation in OHSMS functioning and the awareness of each employee of The Sponsor about the possibility of participating in the improvement of working conditions on the basis of dialogue is the most important element of the OHSMS. To mitigate OHS risks, The Sponsor will continue to: • Undertake an independent audit of Life and Fire Safety, in line with IFC Performance Standard 4 and EBRD Performance Requirement 4. • Ensure the safe exploitation of production equipment, provide periodic safety tests of equipment, and timely repairs and maintenance. • Prioritise and select the safest technological processes during design. • Ensure safe operation of buildings and structures, provide timely repair and maintenance. • Conduct a periodic assessment of working conditions at workplaces and develop an improvement action plan. • Regularly monitor and improve the working conditions of employees, including workplaces, recreation areas, microclimate, and others if necessary. • Strictly follow the orders and recommendations of the OHS supervisory authorities to ensure occupational safety compliance. • Provide workers with appropriate and comfortable personal protective equipment in a timely manner.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Conduct a proper and independent analysis of accidents, occupational diseases, and industrial injuries and complete the preventive and corrective actions identified as soon as they can. • Provide an optimal mode of work and rest in compliance with the legal working hour restrictions. • Provide medical care and preventive treatment at the place of residence of employees. • Prevent unqualified personnel from performing work with hazardous equipment. • Undertake a separate risk assessment to identify GBVH-related risks and define relevant mitigation measures including but not limited to the issues listed below: o Identify focal points for each department and upskill them through GBVH-related trainings. o Prepare a specific policy related to GBVH issues. o Implement the internal grievance mechanism defined in the Stakeholder Engagement Plan and regularly monitor the functionality of the mechanism to improve if there are shortcomings related to handling GBVH grievances.		
	O22	Operational community health and safety risks	IFC PS4 EBRD PR4	Risk mitigation measures for the identified community health and safety risks at the operational phase are listed below: • The use of hydrant dispenser system reduces the number of trips of fuel tankers and fuel emissions during loading/unloading activities. A refuel truck carries a higher safety risk because of possibility of accidents with other vehicles and ground support equipment that could result in fuel spillage. Since hydrant dispensers don't carry any fuel, this risk is reduced due to fuelling operations. • A well-designed and safe fuel storage and distribution system is of great importance for airports of all sizes to prevent potential negative impacts and ensure maximum safety. • Air emissions from storage tanks and during loading and unloading operations are minimized by the use of closed loop fuel hydrant system for loading operations of air crafts, • Water pollution risk due to uncontrolled contaminated wastewater discharges are eliminated by the controlled discharge of accumulated rainwater inside the fuel storage tanks secondary containment basins.		
	O23	Gender considerations	IFC PS4 EBRD PR4	**1.** . Increase capacity to conduct inclusive procurement to implement female workforce targets in future contracting relationships, e.g. by developing an internal policy or guidance document on how to integrate gender equality considerations into procurement activities, to be implemented especially in contracting security and other male-dominated services.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Improve safe working environment for women both for FTA employees and contractors such as improvement of safety and conditions of women changing rooms, rest rooms/nursing rooms. Ensure availability of women toilets as appropriate. Continue assurance of home transfer for women for night shifts and late night overwork expanding it to contractor employees. Include these measures in contractor management plan and monitor compliance in monthly contractor audits . • The items in the Ethical Code of Conduct on gender equality and prevention of GBVH risks will be disclosed to all employees through interactive communications and detailed explanations. • Trainings on gender equality and prevention of GBVH risks will be given to the workers The Ethical Code of Conduct will be involved in the training content and disclosed during the trainings. • The trainings will aim at including all employees, especially security guards. • Measures will be taken to reduce the risks in the working environment (for example, separate toilets and bathrooms for male and female employees, separate rooms such as the gym available for leisure times, etc.). • The working areas will be regularly inspected and monitored to maintain the conditions to prevent GBVH risks. • Internal grievance mechanism will be accessible and confidential for female employees of FTA and its contractors and suppliers to prevent GBVH cases with the possibility of anonymous application. • Grievance records will be reviewed by gender of the complainant and the subject of the grievance.		
Waste and Resources	O24	Resource management	IFC PS3 EBRD PR3 Best practice	• Integrate sustainability and resource efficiency practices into the Project during the design phase and address them during the supplier procurement process • Improve the existing systems and verification practices (i.e. Purchasing/Supplier Evaluation) to identify where the supply is coming from and the habitat type of the source area and to limit procurement to suppliers that can demonstrate that they are not contributing to significant conversion or degradation of natural or critical habitats. • Institute procurement measures for material supply that recognize opportunities such as ordering the correct number of materials to be delivered when needed, reducing the amount of packaging used by suppliers and establishing a take back system with suppliers • Engage with suppliers to substitute raw materials or inputs with less hazardous or toxic materials wherever economically and technically feasible	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
	O25	Energy management	IFC PS3 EBRD PR3 Best practice	• Energy management program will be implemented including identification, and regular measurement and reporting of principal energy flows within a facility, definition and regular review of energy performance targets, and regular comparison and monitoring of energy flows with performance targets to identify where action should be taken to reduce energy use • For any energy using system, a systematic analysis of energy efficiency improvements and cost reduction opportunities will be performed to reduce losses in energy distribution, improve energy conversion efficiency, exploit energy purchasing opportunities, and use lower-carbon fuels • Opportunities in system design, process heating, heating load reduction, heat distribution systems, energy conversion system efficiency, process cooling will be discussed in the procurement stage with the companies. • Prioritize energy efficiency in the buildings with low-energy design • Passive efficiency measures (increase the insulation of walls or windows, reduce the need for artificial lighting, maximize opportunities for daylighting and natural ventilation where appropriate etc.) • Active efficiency measures (minimize energy demand from building services: space heating and cooling, hot water, lighting, auxiliary loads, and equipment: computers, plug in devices, laboratory equipment) • Facility management team to develop and implement a Building Operations Plan including digital energy monitoring and verification, building digitization, automation system, operational set points for HVAC and lighting, equipment	The Sponsor	Operation phase
	O26	Waste and wastewater management	IFC PS3 EBRD PR3	• Procurement: Environment friendly resource materials and waste disposal equipment would be determined at the design stage and purchased/installed. • Planning: Develop and implement waste management plan/plans in accordance with the national and international standards. The management plan acknowledges the key waste management practices such as, waste minimization, proper collection segregation, storage, transportation treatment and disposal of the waste, which in turn ensures that the correct disposal procedures are taken, personnel safety is maintained, and environmental harm is minimized. • Training: All staff involved in waste handling would be trained on the waste handling treatment, and disposal techniques. Correct and efficient waste management will only be achieved through rigorous training and education of employees, supervisors and managers.	The Sponsor	Operation phase

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				• Minimization: Waste Minimization will be integrated in the management plan of the Project to ensure that waste generation will be the barest possible minimum at source. Accordingly, following strategies are proposed as waste minimization strategies o Make Purchasing restrictions to ensure the selection of less wasteful materials. o Recycle materials and products if applicable. o Ensure good management and control practice. • Segregation: Proper segregation of waste at source will be implemented for efficient and effective in managing waste and to reduce the quantity of waste requiring treatment prior to final disposal and ultimately reduces the cost of waste treatment/management. o Segregation involves putting different classes of wastes into separate and appropriate temporary storage color-coded containers/bags as recommended by the national legislation to allow segregation and collection at the point of generation. o Colour coding is done by using colours to differentiate waste classes from one other. Colour coding is one of the efficient ways of achieving segregation of waste and for sorting out items such as paper, plastic, glass and metal for recycling. o The packaging would be appropriate for the type of waste involved. o All waste bags or containers would be labelled. Basic label information would include type of waste in the container, date of collection and, warning of hazardous nature. Labelling is important to identify the source of the waste or date of generation in case of an accident or improper segregation of the waste, to ensure that the workers responsible for waste management handle the different types of wastes safely. • Odour: o Municipal waste mixed with packaging waste amount coming to waste collection and segregation facility would be decreased by implementing efficient waste separation methods at source (i.e., increasing waste trainings for employees and posting informative posters and videos inside the airport for passengers) o While the capacity of the existing waste collection and segregation facility will be expanded, the indoor area would be increased in order to reduce the odour. • Monitoring: Regular visual inspection/audits for waste management strategies will be performed and audit mechanism will be integrated in the management plans. o All waste storage collection and storage areas are inspected for evidence of accidental releases and to verify that wastes are properly labelled and stored.		

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Responsible Party	Timing
				○ Regular audits of waste segregation and collection practices. • Recording: ○ Tracking of waste generation trends by type and amount of waste generated ○ Keeping records that document the amount of waste generated and its destination.		
Traffic	O27	Operational traffic management	IFC PS4 EBRD PR4	General traffic management for increased traffic due to HGV and passenger movements • Lower speed limits and traffic control measures will be applied within the Project site. • A TMP will be developed for the operation phase outlining safety measures for internal traffic management including vehicle operations, use of access roads, vehicle and pedestrian routes, use of parking facilities. • It will be ensured by The Sponsor in coordination with DHMI that traffic and transport procedures within the Airport follow the applicable national and international standards and guidelines. • The emergency teams of the Project will be furnished and trained to respond to traffic related emergencies. Traffic related emergencies to be part of the Emergency Response Plan. • As currently no information is available on the capacity of the shuttle buses, it is important that communication with the Municipality is held by the Sponsor to discuss and align for necessary future upgrades of shuttle bus services to satisfy the demand as a result of Airport expansion and related passenger increase. • Monitoring of airport traffic increase and impacts on local road network will be undertaken. • A consultative approach to planning and clear guidance signs for the car park areas will be implemented. • Safe working environment for drivers and transportation The Sponsor staff as well as staff of its service providers commuting to airport and supply of necessary PPEs will be ensured. • Necessary communication and collaborations with local/governmental authority, NGOs, neighboring facilities and commercial organizations regarding traffic and transport management will be undertaken.	The Sponsor	Operation phase

5 Monitoring and Reporting Requirements

5.1 Overview

Effective reporting and independent auditing are required for continual improvement. Performance monitoring, reporting and auditing will be carried out to ensure compliance with the requirements of the ESIA and this ESMP. The suggested scope and format of all reports proposed below will need to be agreed with the Lenders prior to these being produced, broken down by construction and operational phases.

5.2 Construction Activities: Internal Monitoring

The frequency of these activities and associated reporting will be undertaken as per the CESMP. The Project Sponsor should undertake a review of all the individual management plans, once per year or if an event triggers the update of a management plan and devote enough EHS capacity for regular oversight on EPC construction activities.

5.2.1 Day to Day Monitoring

The EPC Contractor will undertake compliance monitoring of the sub-contractors environmental and social compliance on a regular basis, proposed to be at least weekly. This will be carried out in accordance with the approved CESMP. It will include regular general environmental and social site walkovers to identify any H&S, labour-related or environmental concerns and ensure compliance. Any notes made during site visits are to be collated on a standard form and saved. This will include any actions that have been taken or that will be taken (if required).

Furthermore, the environmental and social capability across various construction teams should be developed to enable identified team members to be able to recognise and report environmental and social issues beyond general awareness or labour performance and job-specific issues that would form part of the standard E&S training; these would be reported to the site environment and social management team. This system provides more staff able to note day to day issues.

5.2.2 Monthly Reporting

This section represents a framework of what the monthly reporting is likely to include, but the details are to be agreed between the Project Sponsor, EPC Contactor and the Lenders.

The EPC Contractor ESHS team will provide the necessary information for the Project Sponsor to prepare a monthly report to share with the Lenders during construction. These monthly reports should include information on the following:

- Information on the progress with the Project, main achievements and challenges of the month ahead.
- Progress in implementing the CESMP and the individual management plans.
- Incidents and accidents, number of staff working on site (including sub-contractors) and security/H&S statistics.
- Labour performance including all construction contractors. The labour performance reporting template should be reviewed and agreed with the Lenders. All construction contractors will report on their labour performance using the agreed reporting template.
- Social perfromance and statistics on complaints received. This should also include information on the actions taken to address the complaints raised.

- Environment activities and statistics on environmental incidents. This should also include actions taken or measures to be put in place to address any non-conformities noted on site.
- Outstanding non-compliance reports and their proposed close-out dates.
- Summary of any complaints by external bodies and actions taken/to be taken.
- Any breaches of the acceptable standards specified by law/construction permits and/or the CESMP, using a non-compliance report.
- List of sub-contractors.
- Update on programme of activities.
- Information on permits, quality assurance, other relevant contractual information.
- Relevant changes or possible changes in legislation, regulations, and international practices.

As part of the project ESAP, the Lenders have outlined the requirement of monthly updates to them of progress against implementation of the ESMP during the construction phase.

5.2.3 Periodical Reporting

The Project Sponsor will produce periodical reports, within intervals as agreed with the Lenders. These are comprehensive reports on the environmental and social performance of its facilities and operations related to the Project and the implementation of the ESMP. They will include a summary of key E&S aspects during the reporting period, action plan status and update, deviations/non-compliance and feedback.

The Project Sponsor will ensure that all the necessary reports are produced and submitted to Lenders in a timely fashion in order to achieve on-going regulatory compliance.

5.2.4 Environmental and Social Baseline Monitoring

The Project Sponsor should ensure environmental monitoring requirements are met in the form of an overarching Environmental Monitoring Programme, as part of the ESMS.

In line with the environmental and social effects identified within the ESIA, and to be in accordance with the project ESAP, monitoring of the environmental and social baseline is a requirement of the mitigation that has been identified. This will ensure that the management measures that have been identified for the construction phase of the Project are working.

Where monitoring identifies exceedances in the standards that are being applied, then environment and social management measures need to be reviewed for their effectiveness. Changes would be made to these management measures or to construction practices to ensure compliance with the standards.

Table 5-1 outlines the minimum construction phase environmental and social monitoring regime, including responsible parties, frequency of monitoring, and potential actions in the event of an exceedance.

5.3 Operational Activities: Internal Monitoring

During the operational phase, monitoring and reporting are important to ensure the continued implementation of the ESMS; however, monitoring and reporting is typically less frequent than during the construction phase.

The Project Sponsor will undertake regular environmental, social and health & safety site visits. Notes from these site visits should be sent to the ESHS Manager.

The Project Sponsor should prepare a report at least every six months on the activities for the Lenders. The report should include the following information:

- Information on progress, main achievements and challenges.

- Progress in implementing the ESMS and the individual management plans.
- Incidents and accidents, number of staff working on site (including sub-contractors) and security/H&S statistics.
- Social activities and statistics on complaints received. This should also include information on the actions taken to address the complaints raised.
- Environment activities and statistics on environmental incidents. This should also include actions taken or measures to be put in place to address any non-compliance noted on site.
- List of sub-contractors.
- Update on programme of activities.
- Information on permits, quality assurance, other relevant contractual information.

Reviews of all the individual management plans will be undertaken by the Project Sponsor at least once per year, or if an event triggers the update of a management plan.

A register of all necessary external stakeholders, including regulatory reporting requirements, will be listed within the ESMS. The frequency of reporting, format and minimum content along with the person responsible will be contained in the register as agreed with Lenders.

The Project Sponsor will ensure that all the necessary reports are produced and submitted in a timely fashion in order to achieve on-going regulatory compliance throughout the life of the Project.

5.3.1 Environmental and Social Baseline Monitoring

The Project Sponsor should ensure all environmental and social monitoring requirements are met. The environmental and social monitoring will be agreed with the Lender and will include monitoring of the items described in Table 5-1 and Table 5-2 (in addition to items identified as part of the project ESAP). This will ensure that the management measures that have been identified for the operation phase of the Project are working.

Where monitoring identifies exceedances in the standards that are being applied, then environment and social management measures need to be reviewed for their effectiveness. Changes would be made to these management measures or to construction practices to ensure compliance with the standards.

In addition, monitoring will be required to confirm compliance with permits/licence conditions, national regulations, and international guidance.

The ESMS will include full details of project monitoring requirements, including frequency and location.

Table 5-1: Construction Phase E&S Monitoring

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Response to Non-Conformity	Location	Frequency and duration	Responsible party
Soils and Geology	Site Investigation Groundwater Monitoring	The monitoring regime should include groundwater monitoring wells fitted in at least three of the site investigation boreholes. It is assumed that wells are available for longer term monitoring over the entire construction duration and therefore these wells should be located outside of the footprint of the buildings. Monitoring should comprise[4]: • Heavy metals and metalloids including; arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc). • pH, dissolved organic carbon, ammoniacal nitrogen, suspended solids. • TPH. • PAH. • PCB – in the vicinity of electrical substations or equipment. • VOC • Pesticides/herbicides. • PFAS -airside or where firefighting foams are used	Should significant groundwater contamination be recorded then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks.	Areas of proposed ground break.	Once installed remain in situ for the entire construction duration.	EPC Contractor
Air Quality	Construction emissions and particulate matter	Monitoring during construction will be required to ensure the measures outlined in the ESIA and CEMP are implemented. This will consist of daily visual inspections by a member of the construction team. Prior to operation undertake VOC monitoring at the existing fuel farm to understand the likely contributions to VOC concentrations to understand if new fuel farm has the potential to create VOC exceedances as predicted by the modelling Undertake VOC monitoring at the proposed fuel farm to monitor impacts at nearby receptors	Cease activities until appropriate mitigation can be applied to ensure activities are compliant.	Existing and new fuel farm area	Prior to operation and daily during construction	EPC Contractor

[4] The final list of items to be monitored is dependent on local laboratory capability, and this final list will be agreed with lenders.

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Response to Non-Conformity	Location	Frequency and duration	Responsible party
Noise	Construction noise	Noise monitoring at sensitive receptors during construction	Cease activities until appropriate mitigation can be applied to ensure activities are compliant	Sensitive receptors	During construction in 3-month intervals	The Sponsors
Labour and OHS	Labour performance monitoring	Monthly monitoring of EPC Contractor labour performance including all construction contractors. Monitoring will include: • Workforce information • HR management • Grievance management • OHS management and risks control measures • Workers' accommodation management • COVID-19 management	Cease activities until appropriate health and safety risks control measures will be approved by the Safety officer and implemented Provide COVID – 19 tests and quarantine facilities. Ensure negative test results before approval to work after disease or quarantine	All construction sites	Monthly monitoring throughout construction. COVID – 19 daily monitoring	Project Sponsor
Community Grievances	Community grievance monitoring	Monthly monitoring of EPC Contractor community grievance management, including all construction contractors. Monitoring will include • Number of grievances raised by local communities during construction • Summary of types of grievances raised by communities (environmental issues, disturbance, etc.) and how they have been resolved • % of grievances resolved • % of grievances unresolved • % of grievances abandoned	All grievances that relate to the direct impacts of the construction activities on the local communities shall be considered immediately. Any works that raised grievances shall be stopped and mitigation applied before works restart. Report to the Project Sponsor on implemented mitigation measures and any reoccurrence.	All construction sites	Monthly	Project Sponsor

Table 5-2: Operation Phase E&S Monitoring

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Timing	Responsible party
Labour and OHS	Monitoring of OHS hazards and risks and control	OHS monitoring should ensure all hazards and risks are managed in line with management plan and national requirements. New constructions, facilities, processes, operations and substances should be assessed within the OHS management system. Control and monitoring	All unsafe works should be stopped until Safety Officer approval of appropriate control measure.	All airport territory	Daily	Project Sponsor

Aspect	No	Subject	Relevant Requirement	Mitigation Measure	Timing	Responsible party
	measures in place	measures should be identified and included into the hazards and risks list and management plan	State labour monitoring (in line with labour authority audits plan)			

5.4 Independent Auditing

The Lenders will be accountable for arranging independent auditing of the Project. This is considered to be required given the IFC Performance Standards guidance notes state that projects require an independent environmental and/or a social expert to verify project monitoring information. This will also be a requirement of the certified ESMS. It is recommended that the independent audit takes at least place every quarter over the construction period and every six months during the first years of operation.

The key objectives of the independent audits will be as follows:

- The practical implementation of the ESMP and ESMS, including progress since the previous visit/review; and
- Feasible improvement objectives for completion before the next visit/review.

These audits will be used to re-examine the continued appropriateness of the ESMP and ESMS, and also to provide advice on any updates required. Attention will be given to lessons learnt in the light of experience. In particular, consideration will be given to the implementation of the management plans and monitoring programmes.

These audits will consider all the environmental health and safety issues that form part of the ESMP and ESMS in both construction and operation phases. Of likely particular importance will be:

- Solid Waste management;
- Storage of chemicals and hazardous materials;
- Air quality;
- Noise and vibration;
- Groundwater monitoring.
- Stormwater and wastewater
- Energy and water consumption
- Physical hazards (moving equipment, strains, weather elements)
- Chemical Hazards
- Life and Fire Safety in areas accessible to public

Auditing social issues will also be important, especially regarding labour rights and working conditions, worker accommodation conditions, occupational health and safety, GBVH and grievances. The audit will need to verify that the Project commitments to worker's rights are implemented, with particular regards to:

- Use of child labour;
- Payment of minimum wages and overtime;
- Right of association and their right to organise and bargain collectively; communication of these and not preventing/retaliating when using rights,
- Ensuring no workers are charged fees to gain employment on the Project;
- Implementation of plans, procedures and training for occupational health and safety;
- Non-discrimination and equal opportunity; providing safe working environment for women
- Awareness raising on and prevention of GBVH
- Functioning and efficient labour grievance mechanism;
- The existence of human resource policies, job descriptions, written contracts;
- Provision of information to labour force regarding rights and working conditions; and

- Sufficiency of employee training activities.
- Dedicated and comprehensive labour rights and working conditions, OHS audit at the peak of construction

Auditing social issues will include other social issues on:

- Development and delivery of SLIP, management of grievances on SLIP
- Delivery of SEP, meaningful engagement of stakeholders and management of grievances effectively
- Delivery of gender smart actions and GBVH measures identified in ESAP and ESMS