REPUBLIC OF TÜRKİYE MINISTRY OF TRANSPORT AND INFRASTRUCTURE

GENERAL DIRECTORATE OF HIGHWAYS

PUBLIC PRIVATE SECTOR PARTNERSHIP
REGIONAL DIRECTORATE

# 1915ÇANAKKALE

ÇOK A.Ş.
ÇANAKKALE OTOYOL VE KÖPRÜSÜ İNŞAAT YATIRIM VE İŞLETME A.Ş.

KINALI-TEKİRDAĞ-ÇANAKKALE-SAVAŞTEPE
MOTORWAY PROJECT
KINALI-MALKARA SECTION PROJECT

# Environmental and Social Management Plan

November,2025

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# ABBREVIATIONS

| | |
|---|---|
| ATS | Action Tracking System |
| ASTM | American Society for Testing and Materials |
| BAP | Biodiversity Action Plan |
| BATs | Best Available Techniques |
| BOMP | Biodiversity Offset Management Plan |
| CESMP | Construction Environmental and Social Management Plan |
| CHMP | Cultural Heritage Management Plan |
| CLO | Community Liaison Officer |
| CMP | Construction Management Plan |
| CM | Change Management |
| DSI | General Directorate of State Hydraulic Works |
| E&S | Environmental and Social |
| EBRD | European Bank for Reconstruction and Development |
| EHS | Environmental, Health and Safety |
| | Throughout this document, EHS refers to Environmental, Occupational Health and Safety, Labour and Working Conditions, Socio-economic, Community Safety and Cultural Heritage aspects. |
| EIB | European Investment Bank |
| EPC | Engineering, Procurement and Construction |
| ESHS | Environmental & Social, Health and Safety |
| ESIA | Environmental and Social Impact Assessment |
| ESMP | Environmental and Social Management Plan |
| ESMS | Environmental and Social Management System |
| EU | European Union |
| GBVH | Gender-Based Violence and Harassment |
| GHG | Greenhouse Gas |
| GRM | Grievance Mechanism |
| Ha | Hectare |
| HR | Human Resources |
| HSE | Health, Safety and Environment |
| HSE-MS | Health, Safety and Environment Management System |
| HSSSE | Health, Safety, Security, Social and Environmental |
| IFC | International Finance Corporation |
| ILO | International Labour Organisation |
| ISO | International Standards Organisation |
| ITS | Intelligent Traffic System |

| | |
|---|---|
| KGM | General Directorate of Highways |
| KPIs | Key Performance Indicators |
| LRP | Livelihood Restoration Plan |
| NOV | Notice of Variation |
| OECD | Organisation for Economic Co-operation and Development |
| OHS | Occupational Health and Safety |
| PAPs | Project Affected Peoples |
| PPE | Personal Protective Equipment |
| PS | Performance Standard |
| RAP | Resettlement Action Plan |
| RF | Resettlement Framework |
| SEP | Stakeholder Engagement Plan |
| SOPs | Standard Operating Procedures |
| SYGM | General Directorate of Water Management |
| WWTP | Wastewater Treatment Plant |

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# 1. Introduction

## 1.1 Purpose

This document is the Kinali-Tekirdaĝ-Çanakkale-Savaştepe Motorway Project Kınalı - Malkara Section (the Project) Environmental and Social Management Plan (ESMP).

The purpose of this ESMP is to:

- Provide an overview of the environmental, health and safety, socio-economic and cultural heritage (EHS) policies, regulations and standards applicable to the Project;
- Document and direct ÇOK A.Ş. personnel and guide EPC Contractors on how Project EHS risks are managed during the construction stage of the Project to conform with applicable EHS policies, regulations and standards and ensure the Project Commitments are attained;
- Clarify EHS compliance assurance roles and responsibilities during the construction stage of the Project;
- Ensure that adequate processes are in place to appropriately monitor construction activities against Project EHS policies, regulations and standards;
- Ensure reporting systems are developed and implemented to communicate EHS compliance performance to ÇOK A.Ş. leadership;
- Facilitate continual improvement and EHS compliance assurance.

The scope of this ESMP details the construction and commissioning stages of the Project and provides an EHS Management Framework for the operational stage. Recognising the fundamentally different conditions during operation stage, the ESMP will be updated in response to the potential environmental, socio-economic, cultural heritage, health and safety impacts and risks associated with the operational stage of the Project. This document will therefore be adjusted in response to the changed conditions, and a new ESMP version issued to support the operation stage of the Project, once sufficient details will be available as result of the operational readiness planning. The updated ESMP supported by adequate EHS Management Plans addressing the operational stage of the project will be available not later than 6 months before the Kınalı - Malkara motorway section enters operation.

This ESMP provides an overview of the processes to identify, avoid, mitigate and manage Project EHS risks during the construction stage. The ESMP is the central document of the Project EHS management system and is supported by a series of subordinated EHS management plans and procedures implemented at Project and EPC Contractor levels:

- Project EHS Management Plans – see Figure 2-2 in Section 2 for an overview of the management plans that detail the processes implemented by ÇOK A.Ş. to ensure Project policies, standards and commitments are attained during the construction stage of the Project and guide EPC Contractors on the requirements and management plans to be implemented for the Project as part of their EHS management system.
- EPC Contractor EHS Management Procedures – see Section 2.4 for an overview of the EHS management plans to be put in place by the EPC Contractors to ensure implementation of the Project policies, standards and commitments during own Project construction activities.

## 1.2 Project Background

The Kınalı – Tekirdağ – Çanakkale – Savaştepe (Kınalı – Balıkesir) Motorway, with a length of 324 km, is owned by the Republic of Türkiye Ministry of Transport and Infrastructure (MoTI) and General Directorate of Highways (KGM). The Malkara – Çanakkale Motorway (including the 1915Çanakkale Bridge) developed by ÇOK A.Ş. is currently in the operation phase.

Kınalı – Malkara Motorway Project is the extension of the previous section. The Project's starting point will be the Silivri Prison Interchange area of the existing O-3 İstanbul – Edirne Motorway at KM 0+000 and it will end at 105+300 in Malkara. The Project will be realized with build-operate-transfer ("BOT") model. ÇOK A.Ş. will appoint an EPC Contractor for the main design and construction works of the Project. As for the operation phase of the Project, ÇOK A.Ş. will either appoint a contractor in due course (referred to herein as the "Operation and Maintenance ("O&M") Contractor") or operate the motorway by itself.

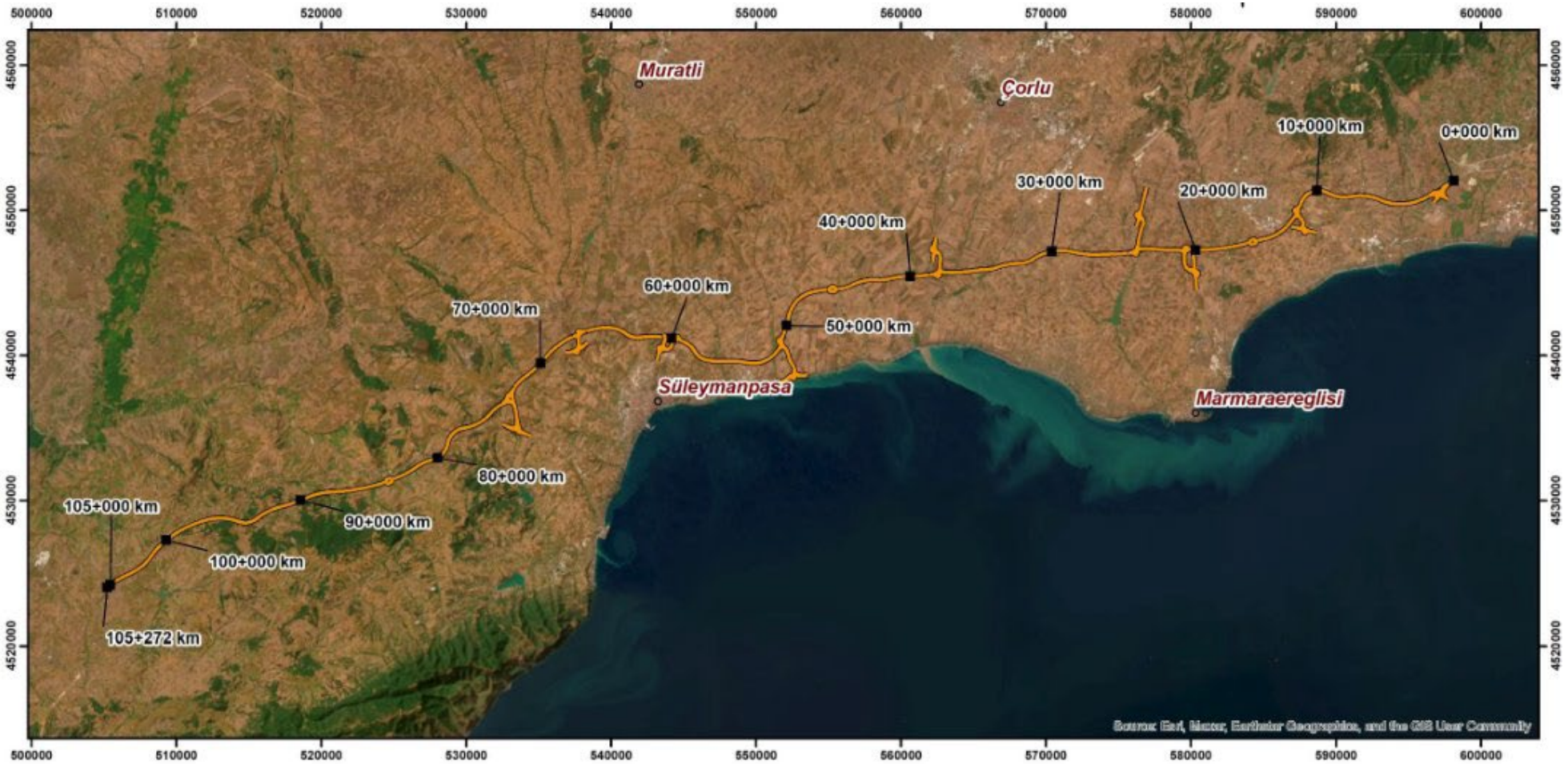



*Figure 1. Kınalı-Malkara Project Route*

# 2. Project Requirements, Regulations and Standards

ÇOK A.Ş. and its EPC Contractors are required to meet a number of key EHS requirements, regulations and standards as outlined below. This ESMP is intended to support transposition of these standards into Project implementation. In cases where the Project requirements and standards are inconsistent or contradictory, ÇOK A.Ş. and its EPC Contractors are committed to applying the most stringent requirement unless otherwise justified to its stakeholders and confirmed with Project lenders.

## 2.1 ÇOK A.Ş. Code of Conduct and Policies

To ensure that the Project is implemented in compliance with the Project Requirements, Regulations and Standards, ÇOK A.Ş. has developed and committed to the below overarching policies which are applicable to all activities, including the construction works programme and all staff working for the Project.

- Health, Safety, Security, Social and Environmental (HSSSE) Policy;
- Code of Conduct
- Employment Policy Document (EPD).

These policies establish the framework for the Project's environmental, social, health and safety management processes as further developed and defined within this ESMP. The Health, Safety and Environmental Policy are being made available on ÇOK A.Ş.. website.

## 2.2. National Legislation

Turkish Environmental Law (Law No: 2872), which came into force in 1983, handles environmental issues on a very broad scope. Under the Environmental Law, environmental regulations have been developed in line with national and international initiative and standards, and some of them have been revised recently to be harmonized with the European Union (EU) Directives in the scope of pre-accession efforts of Turkey.

Complementary to the Environmental Law and its regulations, the laws listed below also govern the protection and conservation of the environment, prevention and control of pollution, implementation of measures for the prevention of pollution, health and safety and labour issues:

- Electricity Market Law (Law No: 6446)
- Energy Efficiency Law (Law No: 5627)
- Expropriation Law (Law No: 2942)
- Forestry Law (Law No:6831)
- Groundwater Law (Law No: 167)
- Labour Law (Law No:4857)
- Law on the Conservation of Cultural and Natural Assets (Law No:2863)
- Law on Improvement of Olive Cultivation and Budding of Wild Species (No:3573)
- Law on Soil Protection and Land Use (Law No:5403)
- Mining Law (Law No:3213)
- Municipality Law (Law No: 5393)
- National Parks Law (Law No: 2873)
- Pasture Law (Law No:4342)
- Public Health Law (Law No: 1593)
- Resettlement Law (Law No: 5543)
- Traffic Law (Law No:2918)

The primary environmental laws, regulations, by-laws and communiqués and other complementary national regulations applicable to the infrastructure projects are provided in Annex A. ÇOK A.Ş.. and its EPC Contractors will comply with the requirements of relevant national legislations and codes of practice, and fulfil all other legal requirements.

The EPC Contractor maintains a Permit Register listing all permits required by the national regulations for construction activities. Up-to-date Permit Register is provided to ÇOK A.Ş.. with the monthly reports Critical paths and bottlenecks between permitting timeframe and construction schedule must be identified and discussed with ÇOK A.Ş... Timing for critical permitting process must be considered in the construction schedule.

## 2.3. International Standards and Regulations

The international standards to be applied to the Project are categorised as follows:

- International Standards (ISO 14001:2015, ISO:45001:2018, European Safety Agency Standards);
- EBRD Policy and Performance Requirements (2014);
- EBRD Sub-sectoral Environmental and Social Guidelines (i.e. Building and Construction Activities, 2010)
- IFC Performance Standards (January 2012);
- IFC Environmental, Health, and Safety (EHS) General Guidelines;
- IFC Environmental, Health, and Safety Guidelines for Toll Roads;
- IFC/EBRD Worker's Accommodation: Processes and Standards;
- OECD Revised Council Recommendation on Common Approaches on Environment and Officially Supported Credits;
- Equator Principles IV;
- EU environmental, social and OH&S Directives;
- International Labour Organization (ILO)'s fundamental conventions concerning the abolition of child labour, the elimination of discrimination at the workplace and the elimination of forced and compulsory labour;
- International Standards (ISO 14001, ISO 45001)

International best practice regarding the mitigation of impacts and consideration of minorities and vulnerable persons.

A list of applicable international standards is provided in Annex B.

Each organization (both ÇOK A.Ş. and the EPC Contractor) is responsible for the monitoring of the updates in the EHS legislation. At ÇOK A.Ş., the EHS Department is responsible for this task. EPC Contractor is required to inform ÇOK A.Ş. on the regulatory changes affecting their activities and on their implications with the monthly reports.

## 2.4. Environmental and Social Impact Assessment

A Draft ESIA in line with the IFC Performance Standards, national legislation, and best international practice was completed for the Project. Figure 2-1 and Table 2-1 sets out the approach and processes that have been adapted for the Draft ESIA study.

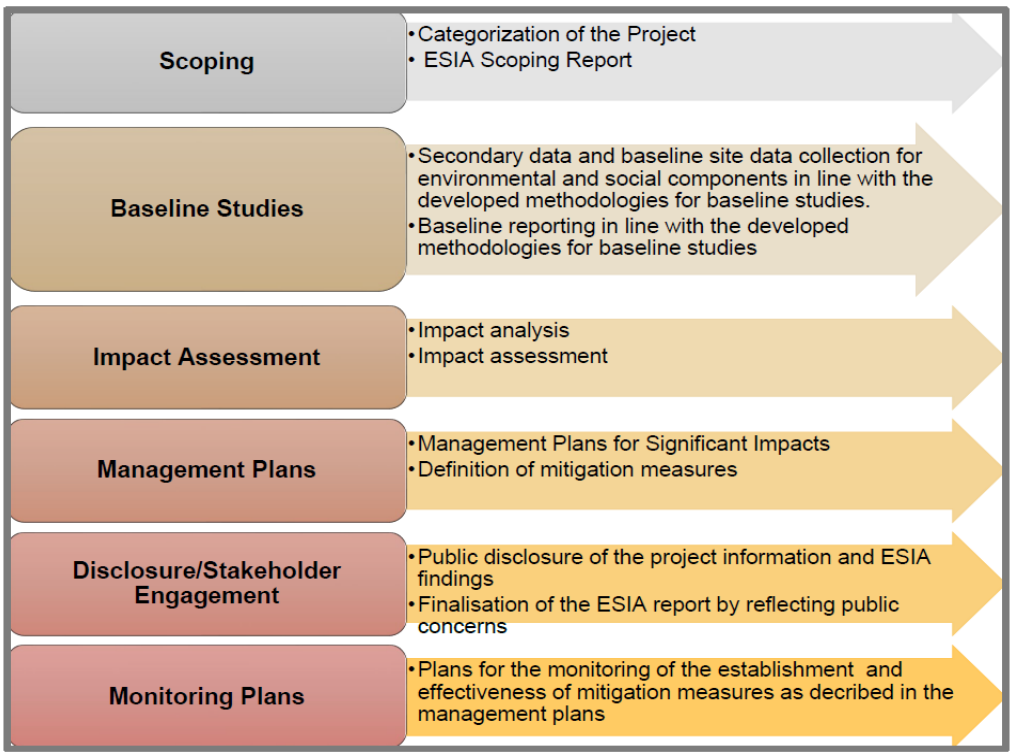



*Figure 2. ESIA process steps*

*Table 1. Summary of the ESIA Process and Project Context*

| ESIA Stage | Description | Project Context |
|---|---|---|
| Screening | Screening is the first stage in impact assessment, in which the need for assessment and the level of assessment required is determined for a particular project. | Need for EIA/ESIA was established under the Turkish EIA regulations. A full scope ESIA is expected of lenders for such a Category A project. |
| Scoping | This is where the key issues to be addressed in the ESIA are identified. Scoping ensures that the process is focused on the significant environmental and social (E&S) impacts, which may arise from the Project, also taking into account the results of consultations undertaken to date on the Project. | Scoping was performed for this ESIA, also considering input from Turkish EIA and initial meetings held in Project area by ESIA Team. |
| Baseline development | For the key issues identified in scoping, available information on the current environmental and social conditions is gathered, and this is supplemented by field studies and surveys where necessary. | Baseline information was collected for various E&S topics, as determined per the results of the Scoping. |
| Impact assessment | This stage is focused on predicting E&S changes from the baseline as a result of constructing and operating the | The impact assessment is performed as described in this document for the relevant topics and identified potential impacts. For |

| ESIA Stage | Description | Project Context |
|---|---|---|
| | proposed Project. Each impact is evaluated to determine its significance for the environment and society by reference to established standards and norms. The focus is on identifying the significant impacts (*i.e.* the most important and the impacts with the potential to cause greatest harm) although the assessment reviews a wider range of possible impacts to determine which are likely to be significant. | each topic, the standard procedure is followed of:<br><br>- Predicting the potential "Magnitude" of an impact;<br><br>- Evaluating the "Sensitivity" of the receptors; and on this basis determining the resulting impact "Significance". |
| Mitigation measures | Following the prediction and evaluation of impacts in the previous stage, solutions (or mitigation measures) are developed to reduce the significant impacts. Mitigation can either be amending the Project design or through methods to be adopted during construction or operation of the project. Mitigation included measures to avoid, reduce or remedy adverse effects, and where this is not possible to provide compensation by offering resources or facilities to replace those that are lost. Mitigation can also include measures to provide environmental and social benefits. | Two types of mitigation measures were defined for this Project:<br><br>-The "Embedded Controls" representing the many actions and physical measures that will be implemented for the Project in compliance with Turkish laws and/or are part of the Project design; and<br><br>- The "Mitigation Measures" that are required on top of the Embedded Controls to further reduce Significance of an impact to an acceptable level. |
| ESMP | The various mitigation measures are compiled in a Commitments Register and presented in an E&S Management Plan (ESMP), describing how the measures will be implemented during the detailed design, construction and operation of the project. | The Commitments from the Turkish EIA as well as the mitigation measures defined for the Project as Embedded Controls or additional mitigation measures are compiled within the Commitments Register.<br><br>This ESMP which is prepared under the ESIA studies details the responsibilities and resources for implementation, the timing and monitoring and audit plans to ensure that all the mitigation commitments are met. It also identified any requirements for training and other capacity building. |
| Stakeholder Engagement Plan (SEP) | The Stakeholder Engagement Plan (SEP) details how the Project will continue to engage with external stakeholders during the following stages of its development including establishment of a Grievance Redress Mechanism (GRM) | This included as a standalone document alongside the ESIA Report. |

| ESIA Stage | Description | Project Context |
|---|---|---|
| Resettlement Framework | The Resettlement Framework will identify potential displacement associated with the Project and "establish the principles, procedures, and organisational arrangements by which the Project Sponsor will abide during project implementation" as defined in IFC's Handbook for Preparing a Resettlement Action Plan. | The Resettlement Framework for the Project has been developed in advance of the preparation of a Resettlement Action Plan (RAP). |

During the ESIA studies, the team frequently seeks the views of interested parties so that these can be taken into account in the assessment and reflected in the proposals for mitigation. Once complete, the Draft ESIA Report and its Annexes will be subject to public disclosure and all comments will be taken into account in revising the Final ESIA Report and ESMP.

Throughout the ESIA process, the team carried out ongoing collaboration with the Project designers and engineering team to ensure that potential impacts are accurately assessed and appropriate mitigation is developed.

# 3. Project Environmental and Social (E&S) Management System

The Project Environmental and Social Management System (ESMS) is a comprehensive framework designed to ensure effective management of environmental and social aspects throughout the Project lifecycle. This system encompasses policies, procedures, and tools that guide the identification, assessment, and mitigation of E&S risks and impacts. Key components include this Environmental and Social Management Plan (ESMP), which outlines specific measures to address identified risks, and the Stakeholder Engagement Plan (SEP), which ensures continuous communication and consultation with affected communities and stakeholders. The system also includes monitoring and reporting mechanisms to track E&S performance, compliance with international requirements (e.g., IFC Performance Standards, Equator Principles IV) and national legislation.

As part of the ESMS, the management strategies and plans in the ESMS for Kınalı – Malkara Motorway Project are defined in order to avoid, minimize and compensate with the risks and impacts identified in the Project. The efficiency of the control measures established with the management plans will be verified against the objectives and targets set. The management plans will emphasize preventive and proactive actions, such as:

a) try to avoid causing social or environmental damage;
b) if not possible, then minimize the impact;
c) if not possible, then compensate or offset the damage.

The relationship between the ESMP, the Project requirements, regulations and standards and the management plans at the various levels of the Project E&S Management System is represented in Figures 4 below. All these Project EHS management system components are described in the following sections of this ESMP chapter.

The Project E&S Management System is based on a four-step iterative process aligned with the ISO 14001 Plan-Do-Check-Act model as represented in Figure 3 overleaf. The concept

reflects an adaptive management feedback loop allowing for accommodation of changes that occur as the Project moves through the various implementation stages.

This management process is based on a staged approach initiated at the planning phase of the Project with the identification of the applicable requirements, regulations and standards and the definition of the leadership commitments stated in the Project E&S Policies and the Code of Conduct.

Project's environmental and social risks and impacts were identified and assessed through an ESIA. The ESIA identified the embedded EHS controls and defined the mitigation measures required to address the residual EHS impacts and ensure that the Project requirements, regulations and standards are met. Addressing the EHS risks and impacts represents a Project commitment.

The ESMP is a key component of the Project E&S system, providing an overview of the processes and tools to manage Project E&S risks within the frame of the Plan-Do-Check-Act model. The ESMP also sets the requirements for the management planning (operational controls, performance review and evaluation) to be established and maintained by ÇOK A.Ş. and the EPC Contractors.

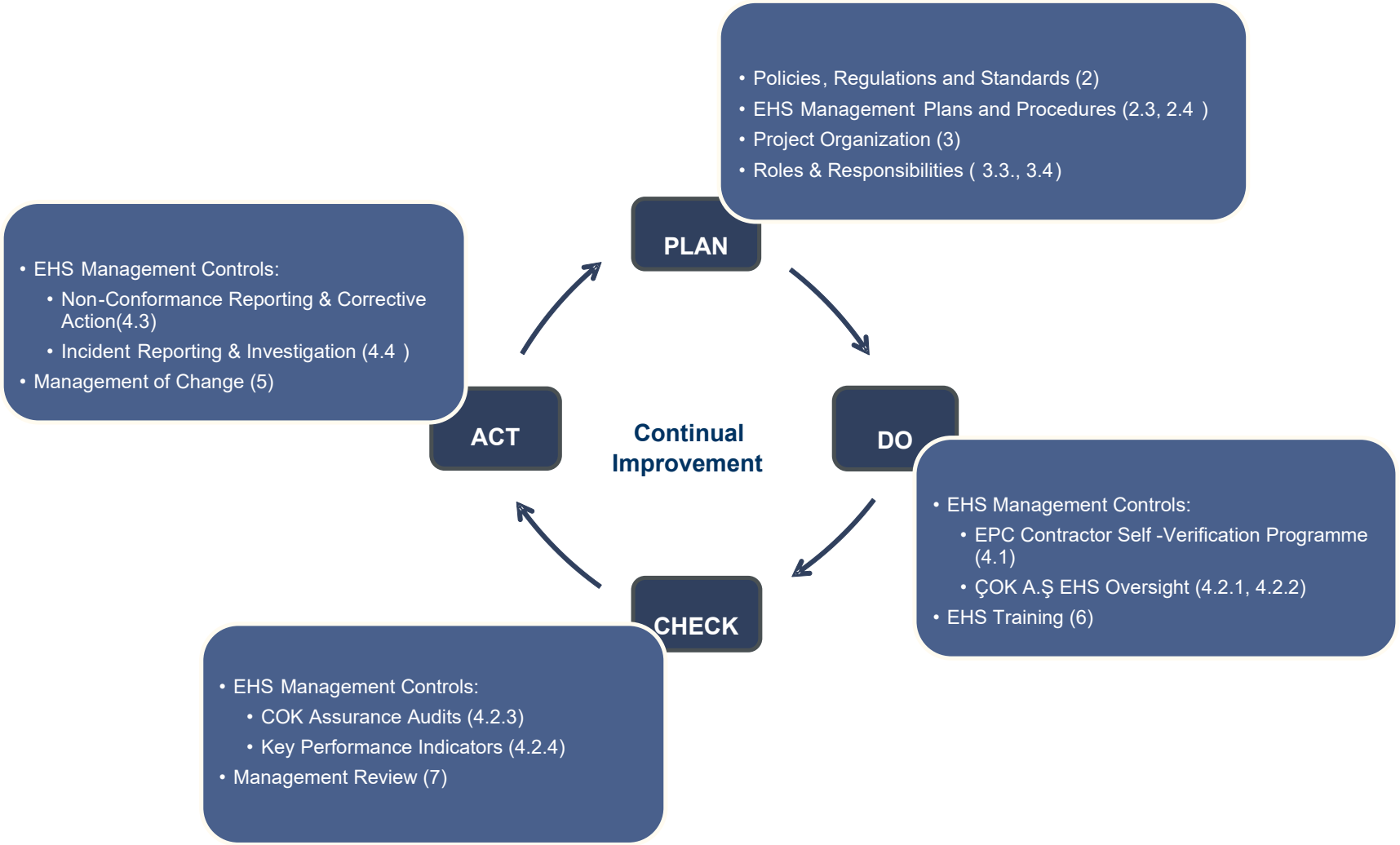



*Figure 3. Project EHS Management System Process*

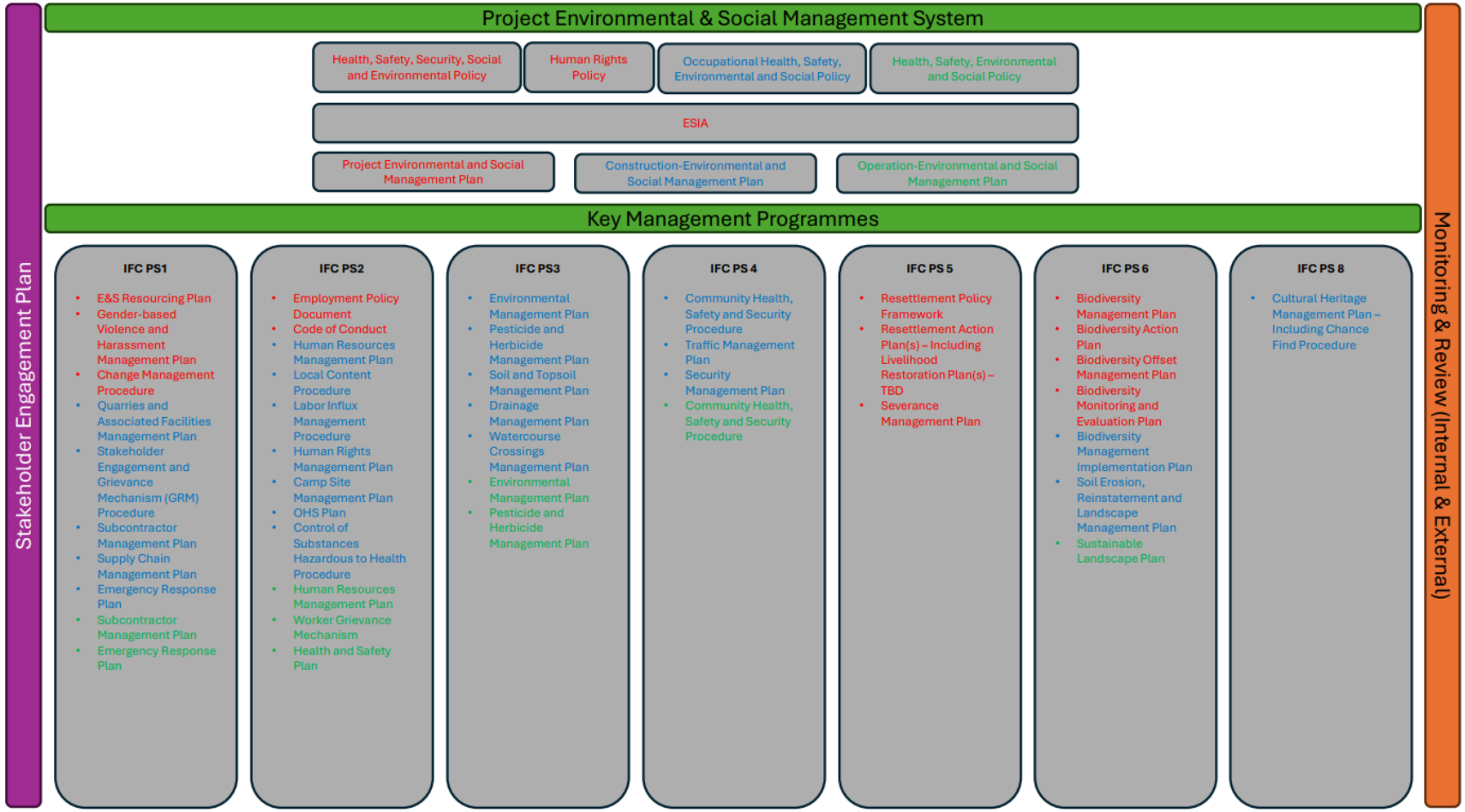



*Figure 4. EHS Management System Structure of Kınalı - Malkara Section Project*

## 3.2 EHS Commitments Register

The Commitments Register provides summary of all actions which the Project has committed to execute to ensure the environmental/social/health committed environmental, social, health and safety performance.

The Commitments Register informed the Project Management Plans which detail the procedures put in place by the Project staff and the EPC Contractor and O&M Contractor requirements to ensure commitments implementation.

The Commitments Register represents an integral part of this ESMP and is provided in Annex C of this document.

## 3.3 Project E&S Management Plans

A number of E&S Management Plans are developed by ÇOK A.Ş. and its contractors. It will be ensured that the implementation of Project commitments, requirements, regulations and standards through implementation of the following:

- Health, Safety, Security, Social and Environmental (HSSSE) Policy
- Stakeholder Engagement Plan and Grievance Management Procedure;
- Resettlement Framework;
- Employment Policy Document (EPD) (Influx Management aspects included);
- Code of Conduct
- Change Management Procedure.
- Permitting and Legal Compliance Procedure

During the construction phase, the E&S operational controls embedded in these E&S Management Plans focus on:

- Implementation by the EPC Contractors of ÇOK A.Ş.'s EHS standards and specifications.
- Oversight of EPC Contractor activities (engineering, procurement, construction) to measure the effectiveness of their self-verification processes with EHS commitments, requirements, regulations and standards.
- Compliance and assurance to assure that the work planned and performed is conducted according to the EHS commitments, requirements, regulations and standards.

The E&S Management Plans to be developed by ÇOK A.Ş. and its contractors shall include the following aspects on related topics:

- Commitments from top management;
- Clear actions and programme for their implementation;
- Clear roles and responsibilities;
- Training needs/matrix and programme to ensure effective implementation;
- Tools and systems needed to maintain records and monitoring; targeted Key Performance Indicators (KPIs) to be used to monitor their implementation and their effectiveness in achieving the targeted avoidance and/mitigation outcomes; resources and equipment needed for their implementation; and
- Review mechanism.

To ensure the EPC contractors develop appropriate processes to implement and self-verify compliance with the EHS standards and specifications, the requirements for developing of the E&S Management Plans indicated above were included in the EPC contractual documents.

E&S Management Plans detail the management and implementation processes required to achieve Project commitments, requirements, regulations and standards. The management plans include information on the Project's E&S oversight, compliance and assurance activities of ÇOK A.Ş.'s contractors. The plans also describe the processes to assure that ÇOK A.Ş. as an organisation is implementing the Project commitments, requirements, regulations and standards.

### 3.4 EPC Contractor E&S Management Plans and Procedures

EPC Contractor is required to implement their own E&S compliance monitoring and assurance processes which will be outlined in topic-specific Contractor Management Procedures and/or method statements. These form the overarching system for identification of E&S requirements, against which compliance is measured.

EPC Contractor is required to ensure that all requirements from the ÇOK A.Ş. E&S Management Plans or directly from the contract between ÇOK A.Ş. and EPC which are relevant to its activities are included in its topic-specific Contractor Management Procedures, along with method statements and measures proposed for implementation.

The EPC Contractor's Management Plans and Procedures are the key operational control documents defining their assurance and self-verification processes. The EPC Contractors' Management Procedures and associated supporting subplans/method statements detail their organisations' roles and responsibilities for implementation; technical details including design and equipment; and self-verification processes to comply with the requirements in the corresponding Project Management Plans.

EPC Contractor E&S topic-specific Contractor Management Plans/ Procedures will detail how the EPC Contractor will implement the requirements outlined in the ÇOK A.Ş. EHS Management Plans or in the instructions included in the Contract with the EPC. Each topic-specific Contractor Management Plan shall be structured to provide the following information:

- Objectives of the management plan,
- References to other related Project management plans
- References to applicable standards relevant for the management plan
- Identification of Project activities associated with impacts in the field of concern and triggering the implementation of all or part of the management plan requirements
- Description of management practices employed to ensure accomplishment of related commitments
- Roles and responsibilities
- Monitoring and reporting.

The topic-specific E&S Management Plans and Procedures to be developed and implemented by the EPC Contractor are summarised below, while the details are provided in Table 2.

- Environmental Management Plan
- Control of Substances Hazardous to Health Procedure
- Watercourse Crossings Plan
- Quarries and Associated Facilities Management Plan
- Drainage Management Plan
- Pesticide and Herbicide Management Plan
- Stakeholder Engagement and Grievance Mechanism Procedure
- HR Management Plan
- Human Rights Management Plan
- Supply Chain Management Plan
- Subcontractor Management Plan

- Campsite Management Plan
- Labour Influx Management Procedure
- Local Content Procedure
- Soil Erosion, Reinstatement & Landscape Management Plan
- Cultural Heritage Management Plan (including Chance Find Procedure)
- Occupational Health & Safety Plan
- Emergency Response Plan
- Community Health, Safety & Security Management Plan
- Control of Substances Hazardous to Health Procedure
- Traffic Management Plan
- Soil and Topsoil Management Plan

The above topic-specific Contractor Management Procedures and Plans are subject to approval by ÇOK A.Ş. as a condition for the execution of the construction works and confirmed with Project lenders.

### 3.5 Operation PHASE E&S Management Framework

This section provides a framework for the E&S Management planning to be put in place for the operational stage of the Project. The EHS Management during operation will ensure that all ESIA commitments applicable at the operational stage of the Project, as provided in the EHS Commitments register appended to this document, are met.

Main activities of the motorway operator will include the following:

- Traffic and Safety operation;
  - Route patrolling;
  - Operation and maintenance of traffic and safety call centre;
  - Emergency operations and traffic management after accident and incident;
  - Road closure management for maintenance activities.
- Maintenance;
  - Routine maintenance, cleaning and limited repair of the motorway, interchanges and connecting roads including the related structures, infrastructures, ancillaries, drainage system (asphalt and concrete pavement patching and crack filling, repair and replacement of curbs, repair of fences, repair of guardrails, repair of horizontal and vertical signage, unblocking of drainages system);
  - Maintenance, including watering, trimming and mowing of non-decorative green areas;
  - Winter maintenance with preventive and corrective activities;
  - Operation and routine maintenance, cleaning and repair of the toll related structures, infrastructures, building, facilities, ancillaries;
  - Maintenance of infrastructure (including viaducts);
  - Maintenance of energised equipment;
  - Routine inspections for all motorway assets;
  - E&M equipment maintenance.
- Tolling operation;
  - Cash collection and money management in toll lanes (until the cash delivery to cash in transit company at the toll plaza);
  - Operation and maintenance of toll back office, including user data management (vehicle classification, license plate number, toll plaza lane entry / exit corrections, illegal passes, etc.);
  - Traffic management at toll plazas.

It is envisaged that for the management of the E&S aspects associated with the operation stage, a similar approach with the management processes detailed in this ESMP will be considered for the E&S management and performance monitoring of ÇOK A.Ş. and of the motorway operator.

The motorway operator will be required to attain certification in line with ISO 14001 for Environmental Management and with an internationally-recognised Occupational Health and Safety Management Standard within a timeframe of 2 years from entering the operation stage.

It is currently envisaged that the operation-stage E&S Management Framework will comprise following management plans:

- Environmental and Social Management Plan
- Health, Safety, Environmental and Social Policy;
- Environmental Management Plan (including monitoring requirements)
- Sustainable Landscape Plan
- Worker Grievance Mechanism
- Pesticide and Herbicide Management Plan
- Health and Safety Plan
- Community Health Safety and Security Procedure
- Emergency Response Plan
- Human Resources Management Plan
- Subcontractor Management Plan

The structure of the operational stage management plans will generally follow the requirements applicable for the construction management plans as specified in this ESMP, adapted to meet operation stage risks and issues as needed.

The above-indicated framework is indicative at this stage and will be refined in the frame of the operational readiness planning. The ESMP will therefore be updated in response to this, not later than six months before the Kınalı - Malkara Motorway section enters operation.

The table below provides a detailed description of Project ESMS management plans, procedures and other related documents.

*Table 2. List of ESMS management plans, procedures and policies and details on objectives and content*

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Environmental Management Procedures & Plans | | | | | |
| Environmental Management Plan | Construction Phase | EPC Contractor | IFC PS3 | Will include water and wastewater management, air quality, noise and vibration, resource efficiency, water and groundwater quality, and waste management aspects of the Project<br><br>Noise and vibration levels mitigation and monitoring<br><br>Construction dust mitigation and monitoring<br><br>Air quality management and monitoring of GHG emissions during construction<br><br>Pollution prevention, including:<br><br>Assessment and measures to prevent pollutants to enter pathway at source,<br><br>Actions to be followed in case pollutants enter the pathway in order to avoid discharge, | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Pollution prevention and protection measures at hazardous materials storages, such as bunding of storage areas, tank overfilling prevention measures.<br><br>Measures on spill prevention/ containment structures around sensitive equipment, installation of appropriate spill cleanup equipment and spill response<br><br>Waste management, including:<br><br>Waste hierarchy (i.e. reduction at source, reuse, recycling, energy recovery, responsible disposal) and green procurement,<br><br>Identification and classification of waste,<br><br>Waste register,<br><br>Waste handling (i.e. collection, segregation and containers, storage, treatment, transport and documentation, disposal), and<br><br>Monitoring and reporting.<br><br>Resource Management including:<br><br>Objectives, targets, processes in place for resource efficiency,<br><br>Water abstraction, conservation, discharge measures, | |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Aggregate management planning, and<br><br>Energy and fuel management. | |
| | Operation Phase | O&M Contractor | IFC PS3 | Will include water and wastewater management, air quality, noise and vibration, resource efficiency, water and groundwater quality, and waste management aspects of the Project<br><br>Noise and vibration levels mitigation and monitoring<br><br>Air quality management and monitoring of GHG emissions during operation<br><br>Pollution prevention, including:<br><br>Assessment and measures to prevent pollutants to enter pathway at source,<br><br>Actions to be followed in case pollutants enter the pathway in order to avoid discharge,<br><br>Pollution prevention and protection measures at hazardous materials storages, such as bunding of storage areas, tank overfilling prevention measures.<br><br>Measures on spill prevention/ containment structures around sensitive equipment, installation of appropriate spill cleanup equipment and spill response | Not later than three months before the commencement of operations<br><br>phase |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Waste management, including:<br><br>Waste hierarchy (i.e. reduction at source, reuse, recycling, energy recovery, responsible disposal) and green procurement,<br><br>Identification and classification of waste,<br><br>Waste register,<br><br>Waste handling (i.e. collection, segregation and containers, storage, treatment, transport and documentation, disposal), and<br><br>Monitoring and reporting.<br><br>Resource Management including:<br><br>Objectives, targets, processes in place for resource efficiency,<br><br>Water abstraction, conservation, discharge measures,<br><br>Aggregate management planning, and<br><br>Energy and fuel management. | |
| Control of Substances | Construction Phase | EPC Contractor | IFC PS2 | Management and mitigation actions regarding control of hazardous substances and their relation with human health, including the following topics: | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Hazardous to Health Procedure | | | | Accidental spills and leakages,<br><br>Labour exposure to hazardous substances,<br><br>Transfer/transport and disposal of hazardous substances at site, and<br><br>Preparation of the hazardous substance inventory for the Project. | |
| Watercourse Crossing Plan | Construction Phase | EPC Contractor | IFC PS3 | Defines overarching philosophy for works at watercourse crossings including:<br><br>Watercourse characterization and crossing design<br><br>Ecological considerations and constraints<br><br>Environmental protection measures<br><br>Construction methodologies<br><br>Reinstatement and Monitoring | Prior to Financial Close |
| Quarries and Associated Facilities Management Plan | Construction Phase | EPC Contractor | IFC PS1 | EHS screening of associated facilities<br><br>Verification of compliance for third-party facilities<br><br>Associated facilities EHS assurance | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Traffic-related aspects management (for construction traffic to/from associated facilities) | |
| Pesticide and Herbicide Management Plan | Construction Phase | EPC Contractor | IFC PS3 | Evaluate the risks and propose mitigation measures for the use of pesticides and herbicides during the construction phase<br><br>Propose the methodology for defining the pesticides and herbicides that are needed to be used during construction phase activities<br><br>Define the monitoring actions for ensuring continuous mitigation of risks related with the use of pesticides and herbicides | Prior to Financial Close |
| | Operation Phase | O&M Contractor | IFC PS3 | Evaluate the risks of maintenance of landscaping and propose mitigation measures for the use of pesticides and herbicides during the operations phase<br><br>Propose the methodology for defining the pesticides and herbicides that are needed to be used during landscaping activities<br><br>Define the monitoring actions for ensuring continuous mitigation of risks related with the use of pesticides and herbicides | Not later than three months before the commencement of operations<br><br>phase |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Drainage Management Plan | Construction Phase | EPC Contractor | IFC PS3 | Outline strategies and actions to ensure effective management of surface water and stormwater flows through and from the Project site<br><br>Highlight the outcomes of the high-level flood risk assessment undertaken as part of the CCRA and set out the method and programme for any more detailed flood risk assessment needed during the design process. | After the financial close. |
| Social Management Procedures/ Plans | | | | | |
| Stakeholder Engagement Plan | Construction Phase and Operation Phase | SPV | IFC PS1 | Overarching framework for all stakeholder engagement-related activities of the Project:<br><br>Stakeholder identification;<br><br>Stakeholder engagement programme<br><br>Monitoring and reporting<br><br>Framework for all external stakeholder grievance management<br><br>Defines process of managing and resolving grievances<br><br>Grievance classifications and definitions | Prior to ESIA Disclosure<br><br>Review and update once RAP(s) are prepared |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Defines reporting and monitoring requirements | Review and update no less than 3 months prior to the planned start of the operation phase |
| Stakeholder Engagement and Grievance Mechanism Procedure | Construction Phase | EPC Contractor | IFC PS1 | Overarching framework for all stakeholder engagement-related activities:<br><br>Stakeholder identification;<br><br>Stakeholder engagement programme<br><br>Monitoring and reporting<br><br>Framework for all external stakeholder grievance management | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Defines process of managing and resolving grievances<br><br>Grievance classifications and definitions<br><br>Defines reporting and monitoring requirements | |
| Gender-based Violence and Harassment (GBVH) Management Plan | Construction Phase and Operation Phase | SPV | IFC PS1 | Establish a clear policy that outlines zero tolerance for any form of gender-based violence and harassment.<br><br>Define measures to create a safe and respectful work environment, such as adequate lighting, secure facilities, and gender-sensitive work practices<br><br>Establish an accessible and confidential grievance mechanism for reporting incidents of GBVH. Ensure that these mechanisms are well-publicized and trusted by employees and community members | Prior to Financial Close<br><br>Review 6 months prior to planned start of operation phase |
| Employment Policy Document | Construction Phase and Operation Phase | SPV | IFC PS2 | Set out the Project's policies on labour and working conditions, GBVH policies, workers' grievance processes, continuous monitoring and auditing | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Sets out how the Project will deliver IFC PS2, EP 4, ILO conventions and other international best practice requirements and comply with Turkish legislation | |
| Resettlement Framework | Construction Phase and Operation Phase | SPV | IFC PS5 | Incorporates people impacted by impacts on ecosystem services to be specifically included as a beneficiary group and the principles for their entitlements established therein | Prior to Financial Close |
| Resettlement Action Plan-including Livelihood Restoration Plan | Construction Phase and Operation Phase | SPV | IFC PS5 | Define a detailed census and inventory of affected persons and assets to establish a baseline for planning and monitoring.<br><br>Socio-economic studies to understand the livelihoods, social structures, and vulnerabilities of the affected population<br><br>Review relevant national laws and regulations, as well as international standards such as the IFC Performance Standards, to ensure compliance with the Project resettlement studies<br><br>Define the roles and responsibilities of various stakeholders involved in the resettlement process<br><br>Develop a framework for fair and transparent compensation for lost assets, including land, housing, and other properties<br><br>Define the mechanism for addressing grievances and resolving disputes related to the resettlement process | Within 6 months to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Define risks of the Project regarding livelihoods and define mitigation measures to provide fair compensation for lost assets and income, along with additional assistance to help affected individuals transition to new livelihoods<br><br>Establish a system to monitor the progress of livelihood restoration activities and evaluate their effectiveness<br><br>Determine methodologies to ensure that vulnerable groups, such as women, elderly, and disabled individuals, receive additional support to restore their livelihoods | |
| Severance Management Plan | Construction Phase and Operation Phase | SPV | IFC PS1, PS5 | Manage the impacts of severance on Project affected communities and people<br><br>Define the methodology to minimize risks related with the economic and access severance and define mitigation measures regarding the defined risks<br><br>Reflect how informed consultation and participation will be achieved as per IFC PS1 during the identification, design and delivery of crossings and address any residual severance impacts. Impact to access to ecosystem services should also be considered. | Prior to Financial Close |
| HR Policy | Construction Phase and Operation Phase | SPV | IFC PS2 | Define commitments on fully respecting workers' rights under Turkish legislation to form and or join labour unions without obtaining permission, without coercion and with no fear of reprisals. | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| HR Management Plan | Construction Phase | EPC Contractor | IFC PS2 | Training and skill development activities;<br><br>Employee grievance mechanism; and<br><br>Monitoring and reporting<br><br>Preparation of the Local Recruitment Procedure to address inter alia the following measures:<br><br>Promotion of local recruitment at all levels of the Project and facilitating the qualification and recruitment of local candidates, for example with appropriate skills training.<br><br>Information to the local population (e.g. through the CLOs of the Project) about opportunities for employment. The recruitment will be monitored and reported by ÇOK A.Ş.'s HR Department.<br><br>Maximise use of Turkish subcontractors and suppliers. Information about work opportunities will be made available to the local population.<br><br>Workers' community interaction behavioural code of conduct<br><br>Subcontractor employment practices conformance, reporting and monitoring | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | Operation Phase | O&M Contractor | IFC PS2 | Training and skill development activities;<br><br>Employee grievance mechanism; and<br><br>Monitoring and reporting<br><br>Preparation of the Local Recruitment Procedure (HR Management Plan) to address inter alia the following measures:<br><br>Promotion of local recruitment at all levels of the Project and facilitating the qualification and recruitment of local candidates, for example with appropriate skills training.<br><br>Information to the local population (e.g. through the CLOs of the Project) about opportunities for employment. The recruitment will be monitored and reported by ÇOK A.Ş.'s HR Department.<br><br>Maximise use of Turkish subcontractors and suppliers. Information about work opportunities will be made available to the local population.<br><br>Workers' community interaction behavioural code of conduct<br><br>Subcontractor employment practices conformance, reporting and monitoring | Within 3 months of O&M<br><br>Contractor engagement (for<br><br>Operations) |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Code of Conduct | Construction & Operation Phase | SPV | IFC PS2 | Define commitments on fully respecting workers' rights under Turkish legislation to form and or join labour unions without obtaining permission, without coercion and with no fear of reprisals. | Prior to Financial Close |
| Human Rights Management Plan | Construction Phase | EPC Contractor | IFC PS2 | Define commitments on fully respecting workers' rights under Turkish legislation to form and or join labour unions without obtaining permission, without coercion and with no fear of reprisals. | Prior to Financial Close |
| Supply Chain Management Plan | Construction Phase | EPC Contractor | IFC PS1 | Supply chain principles, planning, methodology and solutions<br><br>Define principles on supplier management during each Project phase | Prior to Financial Close |
| | Operation Phase | O&M Contractor | IFC PS1 | | Within 3 months of O&M<br><br>Contractor engagement (for<br><br>Operations) |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Subcontractor Management Plan | Construction Phase | EPC Contractor | IFC PS1 | Roles & responsibilities regarding subcontractor management<br><br>Includes key requirements extracted from above plans & procedures<br><br>Need to develop a H&S and Environmental Management Plan<br><br>Establish Health, safety and environmental performances to monitor<br><br>Monitoring and reporting requirements of the EPC Contactor and subcontractors | Prior to Financial Close |
| Campsite Management Plan | Construction Phase | EPC Contractor | IFC PS2 | Define the risks and impacts associated with the accommodation camp conditions on workforce and nearby communities<br><br>Define the mitigation measures to be considered at the accommodation camp and sub-construction sites and define methodology for the audit programme | Prior to Financial Close |
| Labour Influx Management Procedure | Construction Phase | EPC Contractor | IFC PS2 | Highlight on the potential labour influx risks on local community and the Project workforce and propose mitigation measures regarding those risks<br><br>Foster positive relationships between the project workforce and local communities.<br><br>Implement measures to protect the health and safety of both the incoming workforce and the local population. | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Local Content Procedure | Construction Phase | EPC Contractor | IFC PS2 | Address opportunities for local content with regard to direct local employment, subcontractors, and suppliers.<br><br>Giving preference to the procurement of goods and services locally and citizen owned companies without compromising cost, quality and Environmental, Social and Occupational Health and Safety Standards of the Project.<br><br>To increase opportunities for employment of the local workforce to the extent possible considering unskilled, semi-skilled and skilled workforce.<br><br>To maximise the benefits from the Project to local communities in terms of direct and indirect employment and purchasing of local goods and services during construction. | Prior to Financial Close |
| Biodiversity Management Procedures / Plans | | | | | |
| Biodiversity Action Plan (BAP) | Construction Phase and Operation Phase | SPV | IFC PS6 | Defines the mitigation approach to achieving net gain for Critical Habitat and no-net loss for Natural Habitat<br><br>Design inputs on location of animal crossings (assessment and identification of locations)<br><br>Alien species management | 1 year post Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Biodiversity Management Plan (BMP) | Construction Phase | SPV<br><br>EPC Contractor | IFC PS6 | Overarching biodiversity management control document<br><br>Project biodiversity management system<br><br>Biodiversity identification, management, monitoring and restoration | Prior to Financial Close |
| Biodiversity Offset Management Plan (BOMP) | Construction Phase and Operation Phase | SPV | IFC PS6 | Implementing measures to avoid, minimize, restore, and offset impacts on the natural habitat, following a mitigation hierarchy<br><br>Actions to ensure no net loss and preferably a net gain of biodiversity, in line with IFC PS6 requirements Provides tree inventory and replanting requirements | 1 year post Financial Close |
| Soil Erosion, Reinstatement & Landscape Management Plan | Construction Phase | EPC Contractor | IFC PS6 | Defines soil erosion controls and associated standards<br><br>Temporary and permanent erosion control measures<br><br>Inspection and maintenance programme<br><br>Reinstatement and revegetation measures and planning | Prior to Financial Close |
| Sustainable Landscape Plan | Operation Phase | O&M Contractor | IFC PS6 | Aims to provide measures to:<br><br>Implement measures to protect and enhance local biodiversity<br><br>Optimize the use of natural resources such as water and soil | Not later than three months before the |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Ensure that the landscape plan provides benefits to local communities. | commencement of operations<br><br>phase |
| Cultural Heritage Management Procedures / Plans | | | | | |
| Cultural Heritage Management Plan (including Chance Find Procedure) | Construction Phase | EPC Contractor | PFC PS8 | Cultural heritage supervision and management during construction<br><br>Chance finds training, management and response<br><br>Interface and coordination with relevant authorities<br><br>Monitoring and reporting of intervention activities to recover and record cultural heritage values | Prior to Financial Close |
| Occupational and Community Health and Safety Management Procedures | | | | | |
| Occupational Health & Safety Plan | Construction Phase | EPC Contractor | IFC PS2 | Summary of OHS hazards and risks identification and assessment<br><br>High-risk activities identification and management<br><br>Occupational Health and Safety Communication and Training Programme which will apply during the Construction Phase across all | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | contractors. The Plan will also apply to the quarries. The Plan will subsequently be updated as appropriate for the subsequent Operation Phase. | |
| Health and Safety Plan | Operation Phase | O&M Contractor | IFC PS2 | Summary of OHS hazards and risks identification and assessment<br><br>High-risk activities identification and management<br><br>Occupational Health and Safety Communication and Training Programme which will apply during the Construction Phase across all contractors. The Plan will also apply to the quarries. The Plan will subsequently be updated as appropriate for the subsequent Operation Phase. | Not later than three months before the commencement of operations<br><br>phase |
| Emergency Response Plan | Construction Phase | EPC Contractor | IFC PS1 | Emergency response in event of spills, fire, accidents, earthquake, flood, extreme weather, terrorist threats or attacks etc.<br><br>Emergency response equipment/materials requirements<br><br>Spill containment and clean-up plan<br><br>Procedure for staff and subcontractors to report any incidents and the investigation, remediation and preventive actions taken. | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Regular emergency response training including in the use of spill response equipment<br><br>Emergency Response Plan including with local communities and authorities | |
| | Operation Phase | O&M Contractor | IFC PS2 | Emergency response in event of spills, fire, accidents, earthquake, flood, extreme weather, terrorist threats or attacks etc.<br><br>Emergency response equipment/materials requirements<br><br>Spill containment and clean-up plan<br><br>Procedure for staff and subcontractors to report any incidents and the investigation, remediation and preventive actions taken.<br><br>Regular emergency response training including in the use of spill response equipment<br><br>Emergency Response Plan including with local communities and authorities | Within 3 months of O&M<br><br>Contractor engagement |
| Community Health, Safety & Security Management Plan | Construction Phase | EPC Contractor | IFC PS4 | Sets out the security measures, particularly for the Construction Stage of the Project (e.g. access control by fencing of construction section in the vicinity of settlements or communities). | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Community Health, Safety & Security Procedure | Operation Phase | O&M Contractor | IFC PS4 | Sets out the security measures, particularly for the Construction Stage of the Project (e.g. access control by fencing of construction section in the vicinity of settlements or communities). | Not later than three months before the commencement of operations<br><br>phase |
| Control of Substances Hazardous to Health Procedure | Construction Phase | EPC Contractor | IFC PS2, PS4 | Management of hazardous substances used at the worksites<br><br>Define measures to ensure following:<br><br>Implement appropriate control measures to minimize exposure to hazardous substances.<br><br>Regularly monitor the effectiveness of control measures and review risk assessments to ensure they remain up-to-date and effective<br><br>Establish clear procedures for dealing with accidents, incidents, and emergencies involving hazardous substances | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| Traffic Management Plan | Construction Phase | EPC Contractor | ISC PS4 | Road traffic management including:<br><br>Establishing rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures (e.g. prohibiting operation of forklifts with forks in upper position).<br><br>Local traffic signage.<br><br>Training of Pedestrian workers to work safely around trucks and operating equipment and provide constant warnings to each other in the event of being in risky locations or conditions.<br><br>Training of drivers and equipment operators.<br><br>Define procedures for the site access within the Project site<br><br>Communication protocols and procedures with KGM | Prior to Financial Close |
| General Subjects | | | | | |
| Health, Safety, Security, Social and Environmental (HSSSE) Policy | Construction Phase and Operation Phase | SPV | IFC PS1 | Define SPV's and the Project's commitments to:<br><br>Ensure the well-being of all employees and stakeholders by implementing robust health and safety measures. | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Identify, assess, and mitigate risks associated with workplace activities to prevent accidents and injuries.<br><br>Provide regular training and awareness programs to educate employees about health and safety practices<br><br>Implement security protocols to safeguard personnel, assets, and information from potential threats such as theft, sabotage, or terrorism.<br><br>Develop and maintain emergency response plans to handle security incidents effectively<br><br>Foster positive relationships with local communities through engagement and support initiatives.<br><br>Establish clear channels for addressing community concerns and grievances promptly and effectively<br><br>Ensure compliance with environmental regulations and continuously monitor environmental performance to achieve continuous improvement | |
| E&S Resourcing Plan | Construction Phase and Operation Phase | SPV | IFC PS1 | Provides details the E&S organisational structure(s), roles and responsibilities and sets out the number and required specialisms of ESHS specialists that will be needed to successfully deliver the ESAP and the Project in line with the Applicable Standards for each Project phase | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Define the E&S personnel needs for the SPV, EPC Contractor, and O&M Contractor.<br><br>Include a recruitment schedule for the E&S personnel for each phase of the Project. | Update 6 months prior to planned start of operation phase |
| Change Management Procedure | Construction Phase and Operation Phase | SPV | IFC PS1 | Defines principles for the following regarding changes occur during the Project activities:<br><br>Preparation and Planning:<br><br>Identify the Need for Change<br><br>Stakeholder Analysis<br><br>Develop a Change Plan<br><br>Communication and Engagement:<br><br>Communicate the Change<br><br>Engage Stakeholders<br><br>Implementation: | Prior to Financial Close |

| E&S Management Plan | Project Phase | Responsible Party | Scope | Objectives and Content | Timeline for Preparation |
|---|---|---|---|---|---|
| | | | | Execute the Change Plan<br><br>Monitor Progress<br><br>Review and Continuous Improvement:<br><br>Evaluate the Change<br><br>Learn and Improve | |
| Permitting and Legal Compliance Procedure | Construction Phase and Operation Phase | SPV | IFC PS1 | This procedure covers the following main elements:<br><br>Permit management<br><br>Supervision and verification<br><br>Coordination<br><br>Recordkeeping and reporting<br><br>Non-compliance management<br><br>Permitting Register | Prior to Financial Close or before commencement of construction |

# 4. Project Organisational Structure

## 4.1 Overall Project Organization

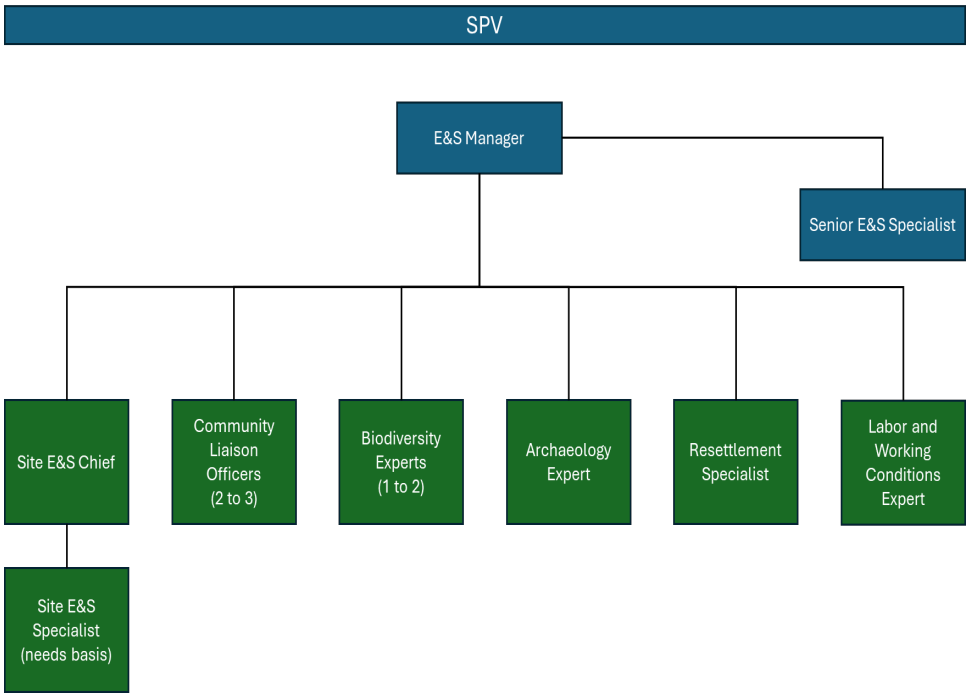



*Figure 5 ÇOK A.Ş. Environmental and Social Organisation Chart*

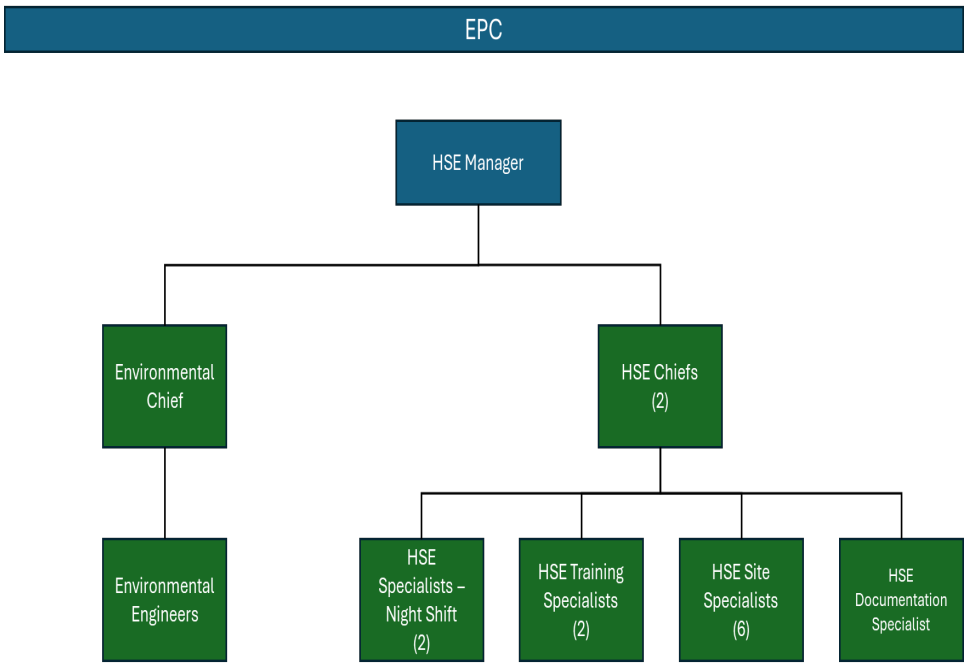



*Figure 6 EPC Contractor Environmental and Social Organisation Chart*

## 4.2 ÇOK A.Ş. EHS Roles and Responsibilities

ÇOK A.Ş. (the Project Company) is ultimately responsible for ensuring that all construction works activities comply with the Project EHS policies, regulations and standards.

Specific main responsibilities of key Project Company staff are summarized in Table 3-1 below. Staff job descriptions detailing individual responsibilities will be aligned with the requirements summarised herein.

*Table 3. Key ÇOK A.Ş.. EHS staff and associated responsibilities*

| Role | Responsibility |
|---|---|
| **Project Manager** | Has overall accountability for the Project including delivery in line with applicable national and international standards.<br>Ensure allocation of sufficient resources for the ESMP implementation including for EHS organisation, permitting, training, equipment and qualified personnel.<br>Ultimate responsibility for ensuring implementation of required corrective actions including in response to identified EHS non-compliances or incidents.<br>Periodical review of the ESMP effectiveness in line with the provisions of this plan. |
| **E&S Manager** | Provide EHS resources for implementation of the EHS management system.<br>Ensure that EHS risks will be systematically identified assessed avoided, mitigated and managed, as well as ensuring the EPC Contractors oversight.<br>Manage the EHS team budget and ensure that EHS team's activities are effectively executed.<br>Provide the Project leadership team with EHS management system advice, guidance and assurance.<br>Communicate the content of this ESMP and any changes to the ÇOK A.Ş. and EPC Contractor teams and act as the focal point to promote implementation, performance monitoring and provide guidance and support.<br>Managing the review and acceptance of EPC Contractor Management Procedures and supporting EHS method statements plans and processes.<br>Inform EPC Contractors on EHS responsibilities as defined in this plan and detailed in the Project Management Plans and ensure these are understood and implemented throughout all construction stages.<br>Act as focal point for EPC Contractor oversight in accordance with this ESMP.<br>Ensure that all EHS-related incidents are reported and dealt with effectively and lessons learned are shared in accordance with the ÇOK A.Ş. incident reporting procedure.<br>Oversight of the EPC Contractors' activities to ensure they align with Project EHS management system requirements and with the EPC Contractor Management Procedures and supporting sub-plans and method statements.<br>Coordination of the EHS field' activities at the construction sites.<br>Support EHS and construction field staff through assistance with pre-construction surveys, document review, incident investigation and technical advice.<br>Organizing and participating in inspections, reviews and audits of the EPC contractor performance with respect to the requirements of this ESMP.<br>Perform field-based EHS oversight of the EPC Contractors, monthly of more frequently, as required.<br>Ensure RAP development, implementation and monitoring<br>Responsibility for maintaining systematic records and evidence demonstrating compliance with Project standards.<br>Responsibility for reporting to Project lenders and their advisors in line with |

| Role | Responsibility |
|---|---|
| | the provisions of this ESMP.<br>Responsibility for operation-stage EHS aspects management. |
| **E&S Specialist** | Responsibility for implementation of ESMS plans and policies.<br>Responsibility for periodic reports.<br>Responsibility for stakeholder engagement and grievance mechanisms.<br>Responsibility for monitoring activities. |
| **Community Liaison Officers** | Act as liaison between the community/stakeholders and ÇOK A.Ş.. along the motorway route and maintain positive relationship with them.<br>Provide timely information to communities on all project works, in respective areas through regular meetings with stakeholders and ensure that long term relationships are not negatively impacted.<br>Provide information on potential issues with local communities and stakeholders and contribute in implementing specific measures to prevent and mitigate risks<br>Take active role in the in the identification of community needs and assist in the decision process regarding ÇOK A.Ş.. community investment programme. Contribute to the successful implementation of ÇOK A.Ş.. community investment programme.<br>Identify key stakeholders, requiring engagement in the frame of ÇOK A.Ş.. stakeholder engagement processes/activities and update regularly the stakeholder mapping in response to stakeholders activities and their relationship with the Project.<br>Monitor local development that has the potential to impact Project activities, and report to the E&S Manager. Responsible for implementing the Grievance Mechanism.<br>Responsible for ensuring grievance training, communication and monitoring.<br>Responsible for verifying EPC Contractors compliance to grievance commitments.<br>Responsible for grievance reporting.<br>Responsible for managing grievance data quality and ensuring completeness grievance records.<br>Support the project team to receive and define grievances and forward them to E&S Manager and assist in closing the grievances as required.<br>Follow up on grievances resolution process.<br>Ensure that stakeholder engagement activities are documented and evidence (e.g. Minutes of Meetings) are kept on file.<br>Contribute and monitor public engagement and outreach activities of the EPC Contractors, as per approved plans and ÇOK A.Ş.' stakeholder engagement guidelines.<br>Report on all activities performed to the E&S Manager on weekly basis and agreed format. |

## 4.3 EPC Contractor EHS Roles and Responsibilities

It is EPC Contractor`s responsibility to ensure that EHS compliance is achieved according to the requirements and processes defined in this ESMP. In attaining this objective, the EPC Contractor establishes and maintains through its own EHS Management System a documented process to identify risks and impacts, implements adequate management measures to mitigate these in line with the Project Requirements, Regulations and Standards provided in section 2.1 of this ESMP. EPC Contractor EHS monitoring of its own activities and its subcontractors EHS performance is referred to as 'self-verification' and forms the first level of EHS compliance monitoring under this ESMP.

The EPC Contractor is responsible for:

- Self-verification of its own compliance by maintaining a system to manage EHS aspects and impacts in line with ÇOK A.Ş. and its own management system requirements;
- Ensuring that all EHS non-conformances and incidents are reported and dealt with effectively and that lessons are learned;
- Ensuring their organizations have adequate resources and expertise for EHS compliance monitoring and control to meet the ESMP requirements;
- Keeping ÇOK A... fully informed of any EHS issues;
- Recording and reporting monitoring observations, required actions and raising non-conformance reports where appropriate;
- Instructing own and subcontractor staff in their responsibilities with respect to compliance assurance and incident reporting and response;
- Cooperating with ÇOK A.Ş. in relation to EHS compliance assurance activities;
- Participating in joint inspections, performance reviews and audits as required by ÇOK A.Ş.;
- Providing ÇOK A.Ş. with access to monitoring records (including all relevant documentation and databases) as required;
- Ensuring adequate expertise, planning and resources are in place to appropriately identify EHS risks sufficiently in advance of construction, in order to ensure compliance;
- Identifying EHS risks as part of its planning processes and through implementation of appropriate mitigation measures and communicating these to its workforce;
- Reporting to ÇOK A.Ş. on EHS performance, including KPIs on weekly and monthly basis in a commonly agreed format;
- Maintaining and reporting updated registers to ÇOK A.Ş. that capture the range of compliance monitoring and assurance information necessary to demonstrate that Project EHS standards are being met during construction works execution.

In order to ensure implementation of the above, the EPC Contractors are required to structure their organizations to include sufficient and adequately qualified EHS staff. The EPC Contractor is responsible for determining the required number of EHS personnel to ensure that Project EHS policies, regulations and standards are met throughout works execution. Furthermore, the EPC Contractor is responsible to ensure that their subcontractors implement throughout their Project activities the requirements set forth in this ESMP and subordinated plans. For this purpose, the EPC Contactor is required to put in place adequate, documented processes for supervision and monitoring of subcontractor responsibilities.

EPC Contractor's EHS team is to include appropriately qualified personnel covering following roles (individual positions may combine multiple roles as appropriate):

- EHS Manager (responsibilities including Environmental, Social, Health and Safety, and Cultural Heritage aspects);
- EHS Specialists (multiple positions as necessary, e.g. environmental specialist, ecological clerk of works, archaeologists etc.);
- Health and Safety Specialist (multiple positions as necessary);
- Community Liaison Officers (multiple positions as necessary);

In case ÇOK A.Ş.'s monitoring of EPC Contractor's EHS performance indicates insufficient EHS oversight, compliance assurance resources or practices, ÇOK A.Ş. is entitled to enforce required corrective actions on the respective EPC Contractor. This may include requiring the EPC Contractor to allocate additional EHS staff and resources.

# 5. EHS Management Controls

EHS Controls in place during the Project construction stage are based on an EHS compliance assurance (monitoring and reporting) process to ensure that EHS Project policies, regulations and standards are met.

ÇOK A.Ş.'s management controls focus on (i) the implementation of the Project's EHS Management System described in this ESMP, (ii) implementation by the EPC Contractor of the Project Policies, Regulations and Standards, (iii) oversight of EPC Contractor activities and (iv) Compliance assurance to verify that the works are performed according to the Project Policies, Regulations and Standards and in line with EHS management system.

This EHS (including environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage aspects) compliance assurance process is implemented at two levels:

- **First level: EPC Contractor Self-Verification programme** (inspections, monitoring, reporting) to demonstrate compliance with EHS policies, regulations and standards, and to provide evidence that it is meeting its' obligations. Includes oversight of subcontractors, including those performing activities off-Project sites (at associated facilities).
- **Second level: ÇOK A.Ş. Oversight and Assurance activities**.
  Oversight is performed by ÇOK A.Ş. EHS staff to ensure that ÇOK A.Ş. own activities and the self-verification conducted by EPC Contractor has been carried out sufficiently. This includes review of EHS reports, documentation, monitoring data, procedures & plans, undertaking formal inspections and attendance of meetings with EPC Contractors to drive performance and raise issues.
  Assurance activities are performed by personnel (or specialized service providers) not directly involved in the works being checked, to provide an additional layer of assurance beyond self-verification and oversight and measure the compliance of Project activities. Assurance process comprises targeted audits and formal reviews. Assurance activities are typically detailed and focused upon defined risk areas or guided by feedback from the results of the self-verification and oversight activities.

In addition to the above, independent audits of compliance with Project Requirements, Regulations and Standards and including both ÇOK A.Ş. and EC Contractor performance are performed periodically, typically on annual basis.

The controls put in place to manage, monitor, measure and report compliance with Project EHS policies, regulations and standards during the Project construction stage are outlined in this ESMP section.

## 5.1 EPC Contractor Self-Verification Programme

EPC Contractor is required to operate an Environmental and Social Management System (ESMS) in alignment with the principles of ISO14001, which requires self-verification of compliance in accordance with the plan-do-check-review cycle (ESMS accreditation to ISO14001 although recommended is not a requirement).

As part of its construction works planning EPC Contractors are required to prepare and implement topic-specific Contractor Management Procedures and/or method statements. These EPC Contractor EHS management planning documents will detail how the EPC

Contractor will meet and comply with the specific Project EHS (including environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage aspects) policies, regulations and standards through a self-verification programme including:

- Undertaking Pre-construction Surveys and EHS assessments to identify and manage EHS risks;
- Performing EPC Contractor EHS inspections and audits;
- Performing EPC Contractor EHS Monitoring;
- EPC Contractor non-conformance and incident notification and response;
- EPC Contractor EHS Action Tracking System;
- Undertaking design reviews to ensure incorporation of ESIA and subordinate-plan mitigation commitments, and
- Creating a functioning interface between designers, construction managers, and EHS functions to ensure integration and delivery of ESIA commitments.

### 5.1.1. EPC Contractor Pre-Construction Surveys

Prior to initiating construction works at a specific Project location, the EPC Contractor is required to perform pre-construction surveys to identify EHS risks and support mitigation planning and implementation as informed by and aligned with ESIA Commitments. EPC Contractor is responsible for ensuring that planning and execution of pre-construction surveys are performed by appropriately qualified staff with sufficient time in advance of construction initiation. Timing of pre-construction surveys execution is to allow confirmation of baseline conditions, identification of aspects triggering construction sites layouts adjustment and development/adjustment of site-specific mitigation prior to construction works initiation. Tree inventories required in line with Project Requirements, Regulations and Standards are to be performed at this stage.

The scope of pre-construction surveys is defined on a case by case basis with consideration of site specific monitoring requirements or applicable EHS constraints identified and are to be agreed with ÇOK A.Ş. before initiation.

The Pre-construction surveys include assessment of EHS risks and identify mitigation measures or actions necessary to appropriately avoid or mitigate potential EHS impacts. EPC Contractors EHS team is required to communicate the findings of pre-construction surveys to other members of the construction team to enable implementation of any site-specific construction approach and mitigation.

### 5.1.2. EPC Contractor Inspections and Audits

To provide assurance that the provisions of the topic-specific management procedures/method statements are implemented effectively, EPC Contractors are required to implement a programme of documented inspections and audits at Project sites and Associated Facilities including own activities and those performed by subcontractors.

This includes undertaking walk-around inspections during construction works execution to visually monitor that mitigation measures are implemented, undertaking joint inspections with ÇOK A.Ş. using checklists, and engagement with project affected parties, stakeholders and regulators. These activities will include inspection of subcontractor labour and working conditions aspects against Project Requirements, Regulations and Standards with quarterly frequency.

EPC Contractor internal audits will be performed in line with each EPC Contractor`s management system procedures as approved by ÇOK A.Ş.. As a minimum EHS internal audits are to be performed by the EPC Contractor on annual basis. The audits are to be performed by an interdisciplinary team of appropriately qualified environmental, social, cultural heritage auditors. ÇOK A.Ş. EHS staff may join the audit team and participate in the EPC Contractor's internal audits.

### 5.1.3. EPC Contractor Action Tracking, Non-Conformance and Incident Response and Notification System

In response to any issues, observations, non-conformances and incidents the EPC Contractor is to propose appropriate corrective actions and record these (including responsibilities and timescale for completion) in its own EHS (including environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage aspects) Action Tracking System (ATS).

ÇOK A.Ş. EHS management staff will review EPC Contractor's ATS on a regular basis and will follow-up on progress and confirm actions closure.

Non-conformances identified as result of inspections, monitoring and audits performed are recorded by EPC Contractor as actions to be addressed within their own management systems and reported to ÇOK A.Ş. in monthly reports as a minimum.

EPC Contractor is required to implement own EHS Incident Reporting and Investigation procedures. All EHS incidents and near misses will be notified to ÇOK A.Ş.. Incidents will be notified immediately as they occur, while near misses will be reported on weekly basis.

ÇOK A.Ş. E&S Manager will review and qualify non-conformances and incidents reported by EPC Contractor. ÇOK A.Ş. E&S Manager will regularly meet relevant EPC Contractor representatives to review the Action Tracking System and status of actions progress and closure.

### 5.1.4. EPC Contractor Monitoring and Reporting

The procedures for monitoring implementation and outcomes of the EHS mitigation measures, EHS KPIs and environmental and social monitoring are defined by each EPC Contractor in their topic-specific management procedures/method statements. The monitoring frequencies, parameters, methodology and duration are determined based upon site activities requiring monitoring, which is assessed on a case by case basis dependent upon construction activity type and location.

EPC Contractor is responsible for reporting monitoring results to ÇOK A.Ş. on a monthly basis.

## 5.2 ÇOK A.Ş. EHS Oversight and Assurance Programme

### 5.2.1. ÇOK A.Ş. EHS Oversight (Monitoring)

EHS oversight is aimed at monitoring construction works activities to determine whether environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage mitigation measures implemented by EPC Contractors are effective (i.e. are avoiding and minimising the impacts as intended, or whether work practices require revision).

During construction stage, EHS oversight monitoring is undertaken by the ÇOK A.Ş. E&S Manager through ongoing review and follow-up on EPC Contractor's weekly and monthly reports and on non-conformance/incident reporting, as well as by performing inspections of the construction work sites or Project-affected areas.

The EHS oversight inspections are performed regularly, on monthly basis, and are intended to highlight key EPC Contractor conformance aspects, and their outcome is used to determine the required actions. In addition to the regular monthly inspections, unscheduled inspections (spot-checks) of critical/key Project areas are performed as needed. The locations and timing of the unscheduled inspections are determined based on the ongoing Project activities and issues, as informed by the EPC Contractor weekly/monthly reports and the non-conformance/incident reporting.

The EHS oversight is aimed at addressing all Project EHS aspects and worksites and ensure that each of them is visited yearly as a minimum.

Checklists may be used in support of the field inspections which may be organised based on specific EHS topics addressing key aspects associated with the construction works activities being inspected.

Inspections' observations and findings are discussed with EPC EHS representatives to determine and agree on any required actions.

ÇOK A.Ş. EHS oversight (monitoring) reports are generated as simple records to include:

- indication of the construction works construction site inspected;
- indication of the construction activities inspected;
- observation notes providing description of positive aspects, good practice or issues/non-compliances identified;
- photographic evidence of the observations made/issues identified.

Where EHS oversight (monitoring) inspections identify issues or non-conformances, the remedial actions required in response are discussed and agreed with the EPC Contractor and recorded into the EPC Contractor's ATS.

### 5.2.2. ÇOK A.Ş. Regular EHS Oversight Reporting

A brief EHS oversight report is provided by the E&S Manager to ÇOK A.Ş. Leadership on quarterly basis. The report summarises the key issues and challenges during the reporting period as resulted from the EHS oversight inspections and the review of the EPC Contractors' EHS reports and ATS.

Regular reporting is intended to keep ÇOK A.Ş. Leadership informed on EHS aspects, so that direction and feedback can be provided to EPC Contractors and leadership support obtained for addressing key and more strategic issues at appropriate decision levels as applicable.

### 5.2.3. ÇOK A.Ş. EHS Assurance Audits

Environmental, social, health and safety audits of each EPC Contractor are performed on annual basis or after specific construction works delivery milestones are attained by the EPC Contractor (e.g. 0 – 50%, 50-100% construction works execution).

The EHS Assurance Audits are conducted primarily by ÇOK A.Ş. (or by ÇOK A.Ş. shareholders') staff independent of the activities audited, or by contracted specialised third-party services providers to provide assurance of oversight and self-verification activities.

The EPC Contractors are formally notified about the EHS audits and their scope which may include but not be limited to:

- EPC Contractor EHS organization/staffing;
- EPC Contractor EHS documentation;
- Implementation by EPC Contractor of the ESMP and subordinate topic-specific management plans, method statements and specific EHS Procedures;
- EHS training and inductions;
- EHS Key Performance Indicators (KPIs);
- EHS Non-conformance and incident reporting, tracking and closure.

Audit protocols are developed based on the defined scope and used by auditors for guidance and for recording audit observations including good practice and non-conformances.

Audit outcomes are summarised in reports and formally communicated to and discussed with the EPC Contractor. Any required corrective actions are agreed with the EPC Contractor and recorded in their ATS and/or Non-conformance Reporting system as appropriate. Progress in addressing the audit findings is followed up on a regular basis to close the open and pending actions and reported monthly.

### 5.2.4. Key Performance Indicators (KPIs)

ÇOK A.Ş. and its EPC Contractors will track and monitor various performance indicators both leading and lagging so as to identify potential trends in environmental, safety and social performance.

### 5.2.5. ÇOK A.Ş. EHS Reporting to Project Owner

ÇOK A.Ş. will submit to the KGM on monthly basis environmental & social, health and safety (ESHS) activity reports summarising all environmental, social health and safety initiatives implemented in relation to the execution of the works during the reporting period.

The monthly ESHS activity reports are concise documents in a pre-defined format agreed with KGM, and submitted within 10 working days from the last day of the previous month. Moreover, the KGM consultant will continuously supervise the ÇOK A.Ş.'s activities in the field.

## 5.3 Environmental Monitoring

A summary of the environmental monitoring programme requirements put in place for the Project is provided in Annex E of this ESMP. The environmental monitoring aspects (including details on each monitoring parameter, methodology, timing of monitoring etc.) are further detailed in each topic-specific management plan subordinated to this ESMP.

## 5.4. Non-Conformance Reporting and Corrective Actions

ÇOK AŞ has established a non-conformance management system. Non-conformances are unapproved (by ÇOK A.Ş.) deviations from ÇOK A.Ş. EHS Specifications or Standards, ÇOK A.Ş. or EPC Contractor Management Plans. These are typically identified through the oversight and assurance process (e.g. daily monitoring, oversight inspections and audits). Non-

conformances are classified using a 5-level severity scale, aligned with the overall Project, Accident and Event Reporting Procedure; see Table 4-1 below.

*Table 4. Non-Conformance Categories and Associated Corrective Actions*

| **Non-conformance Levels** | **Description** | **Action Triggered** |
|---|---|---|
| | Any deviation from the Project commitments or activity performed in non-conformance with contractual requirements, Project Standards and Specifications, ÇOK A.Ş. or EPC Contractor Management Plans, or activities performed outside of ESIA scope which may result in: | |
| **Level 5** | An incident of catastrophic (5) severity | • Immediate corrective action required to correct or stop the on-going non-conformance and implement mitigation. |
| **Level 4** | An incident of severe (4) severity | • Immediate corrective action or site-specific attention required to correct or stop the on-going non-conformance and implement mitigation. |
| **Level 3** | An incident of significant (3) severity | • Corrective action or site-specific attention to correct or stop the on-going non-conformance and/or to prevent the occurrence of environmental and social impacts. |
| **Level 2** | An incident of moderate (2) severity | • Corrective or preventive action or site-specific attention to ensure compliance with Project Standards, ÇOK A.Ş. and EPC Contractor Management Plans. |
| **Level 1** | An incident of negligible (1) severity | • Corrective or preventive action or site-specific attention to ensure compliance with Project Standards, ÇOK A.Ş. and EPC Contractor Management Plans. |

All EHS non-conformances are tracked through to closure by the Main EPC Contractor's EHS team, presented and discussed in monthly EPC Contractor EHS and ÇOK A.Ş. cross functions construction meetings. The EPC's NCR (Non-Conformity Report) system will be based on the following principles (subject to further updates and revisions, by case):

Non-conformances level 1-3 are addressed through a Works Improvement Notices (WIN) process. WINs are intended to resolve minor non-conformances without elevation to a formal non-conformance report. When issues are raised by WINs are not resolved in a satisfactory time frame, or if multiple WINs are issued that show a trend of numerous instances of a particular type of non-conformance, ÇOK A.Ş. or Main EPC Contractor may elevate a WIN to a formal non-conformance report.

Non-conformances level 4-5 are entered into the NCR System and are subject to the following steps sequence:

1) *Initiate* – The originating person submits the Non-Conformance Report by providing concise non-conformance description, indication of departed requirement/ procedure and identification of location/ area where the non-conformance occurred. EPC Contractor will inform ÇOK A.Ş. promptly.
2) *Response* – The EPC Contractor lead defines the Root Cause, Proposed Corrective Actions and Actions to Prevent Reoccurrence.
3) *Review* – Assigned Main EPC Contractor reviewers confirm, or comment on, the proposed corrective actions.
4) *Implement* – The EPC Contractor lead finalizes the non-conformance action plan and initiates implementation according to set due dates. As actions are implemented, the EPC Contractor lead enters in the system relevant supporting documentation confirming implementation.
5) *Close Out* - EPC Contractors reviewers confirm, validate and close out non-conformance and inform ÇOK A.Ş. promptly

## 5.5 Incident Reporting and Investigation

Incident management and associated reporting are addressed by a specific procedure EHS Accident and Event Reporting Procedure

Incidents are classified according to the 5-level severity scale provided in Table 4-1 above.

## 5.6 External Reporting

ÇOK A.Ş. will prepare an annual report to the public on environmental, health and safety performance and implementation of the action plans and grievance procedure. The annual reports will be disclosed on the ÇOK A.Ş. website.

In addition, ÇOK A.Ş. commits to following external reporting:

- Statutory Notifications and Reporting. ÇOK A.Ş. will report to Turkish regulatory bodies as required in Project permits and permitting documentation.
- Incident Notification and Reporting. All environmental and social incidents will be appropriately documented, notified and reported in accordance with established procedures as indicated in previous sections of this ESMP.

Incident notification and reporting to relevant Turkish regulatory bodies will be performed in line with applicable legislation in force and as stipulated in permits and licenses.

ÇOK A.Ş. will notify Lenders Group of incidents pursuant to the terms and conditions agreed upon in the Finance Agreements.

# 6. Management of Change

As stated within the ESIA and as usual for projects of this scale, further design development / changes in construction methods, including the detailed design necessary for the construction of the road, is to be undertaken.

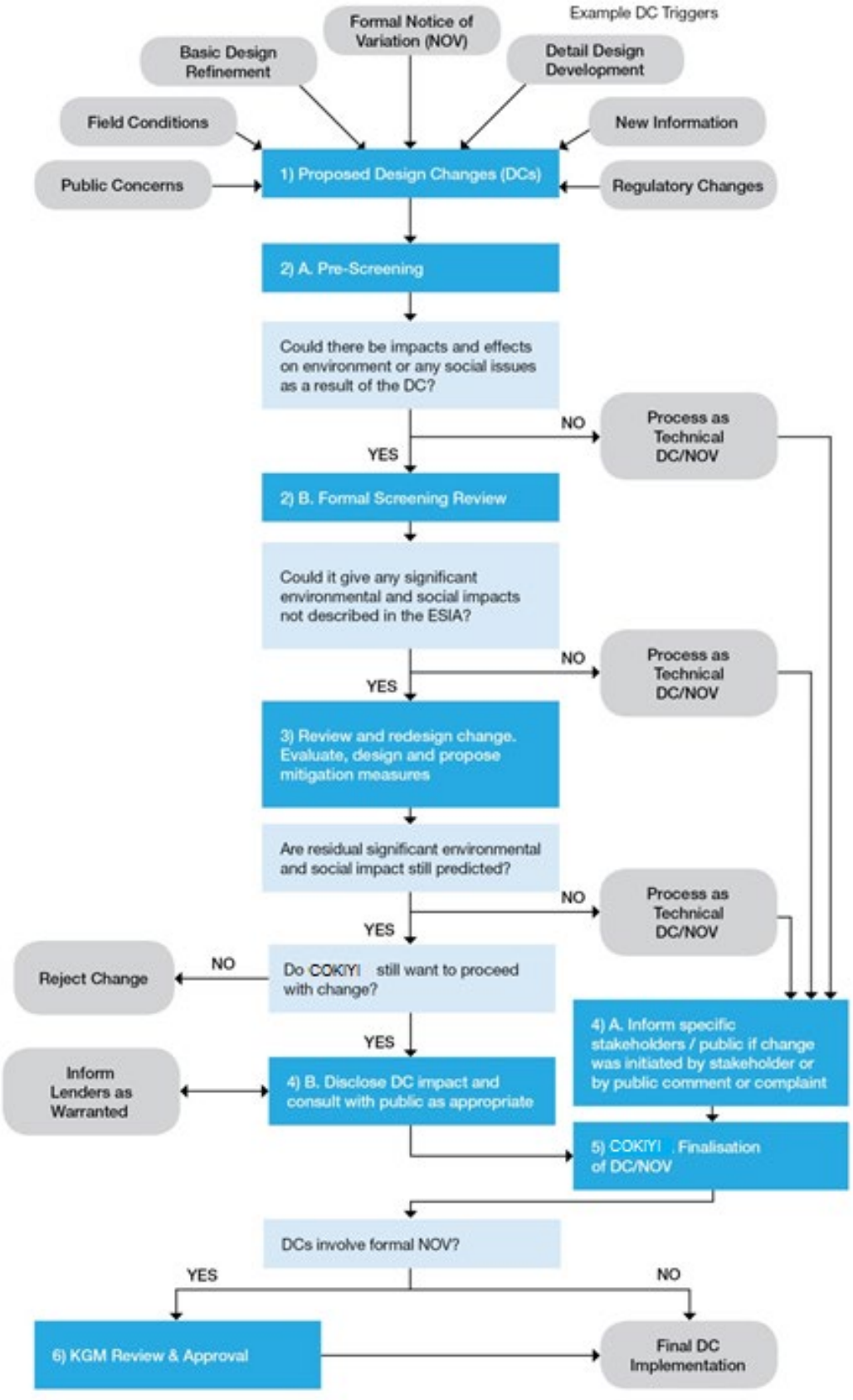
This Change Management (CM) Procedure sets out how the environmental and social implications of the design and construction methodology development will be assessed. The assessment of these aspects will aim to ensure that adequate mitigation is adopted to minimise and avoid effects where any deviations to the scheme described in the ESIA are proposed. The procedure detailed herein represents a sub-process of the overall Change Management Procedure applicable to all Project changes (e.g. financial, construction/technical, schedule aspects). The procedure set out in this document describes how the environmental and social aspects are to be assessed and fully integrates into the overall decision-making process for reviewing design changes / construction methods.

Environmental aspects include air quality, noise & vibration, water resources, land use, archaeology, cultural heritage, and biodiversity; social aspects include labour and working conditions including OHS, community impacts such as public health, safety, security, gender equality, cultural heritage, and involuntary resettlement.

As is typical for such a large infrastructure project, it is expected that there will be changes required to the many design / construction methods aspects of the Project. Many Changes will be of a purely technical nature with little/no ESIA-relevance, and many other Changes are expected to fall within the areas and issues already covered by the ESIA and the ESMP and Resettlement Policy Framework (e.g. change in areas of property expropriated from already-affected landowners, layout of facilities at the rest areas). It should be kept in mind that Changes can also have significant positive implications for the Project.

An overview of the CM Procedure for environmental and social assessment topics is provided in the figure below, and a description of the key phases is also provided.

*Figure 7 Overview of the CM Procedure for Environmental and Social assessment*




** design change in the figure above refers to both design and construction methodology development*

## 6.1 Triggers/Sources for Consideration of Change

Potential DCs can be triggered at various stages of the Project implementation (e.g. Planning/Detailed Design, Construction, Operation) and by the various organisational parties, e.g.:

- Basic design refinement, e.g. by ÇOK A.Ş. engineers/planners;
- Detailed design development, e.g. by the Contractors on KGM-approved designs;
- Changes in construction methodologies;
- Field obstacles during construction;
- Results of further field surveys (e.g. archaeology) and monitoring;
- Comments/concerns submitted by public/stakeholders/lenders;
- Changes in regulations/comments by regulatory bodies;
- Requests from KGM.

Regardless of the trigger source, any potential DC must formally be processed through the DCM Procedures.

## 6.2 Change pre-Screening and Screening

### 6.2.1. Pre-Screening

EPC Contractor will be reporting to ÇOK A.Ş. any change in design or construction methodology, will perform the Change "Pre-Screening" and provides this information as part of the monthly reports. Pre-Screening is performed by EPC Contractor's EHS team members with support from the Design Team or subcontracted experts as needed.

ÇOK A.Ş. is reviewing and provides comments/signoff of the Pre-Screening report. This will ensure that proposed Changes that are clearly of no relevance with respect to environmental or social topics - or having very minor/de minimis implications for the Project implementation - will not be subject to further Screening. These pre-screening results will be provided to ÇOK A.Ş. through EPC Contractor's monthly reports. The change will be processed as a Technical Design/ Construction method Change/ Notice of Variation (NOV).

### 6.2.2. Screening Review

Upon receiving the Pre-screening information, ÇOK A.Ş. undertakes a desk-based "Screening-Review" for any proposed Changes that in the opinion of ÇOK A.Ş. have the *potential* to give rise to new or additional significant impacts (positive or negative) which differ to those as presented in the ESIA Report. The Screening will cover the following criteria *inter alia*:

a) Compliance with national, international and Lenders environmental and social standards;
b) Compliance with relevant health & safety regulations and standards;
c) Compliance with EU standards;
d) Compliance with ESIA-related legal standards and permitting requirements;
e) Any new impacts on current stakeholders and impact to new/additional stakeholders (i.e. beyond that already considered in the ESIA/Resettlement Framework);
f) Any expansion of Project footprint requiring additional land take and expropriation or (i.e. beyond that already reflected in the ESIA/ Resettlement Framework);
g) Impacts on cultural heritage/Archaeology; and
h) Any new/different ESIA-related item/topics that are not already appropriately addressed in the ESIA Package.

The Screening will be performed by/under the direction of the ÇOK A.Ş. E&S Manager, with involvement as warranted of other internal ÇOK A.Ş. staff and EPC Contractor EHS Team members/Design Team, and/or with support from external specialised Consultants (e.g. ESIA consulting team). Screening results will be logged and recorded in a suitable format (to be determined by ÇOK A.Ş.). The Screening results will be available for review by the Lenders and their Advisors.

The potential outcomes of the Changes Screening can be grouped as follows:

**No Significant Environmental and/or Social Impacts** – where there are no significant implications or additional negative impacts identified as compared to the items addressed in the ESIA Report and a change does not trigger additional/new mitigation measures. As such, the screening results will be logged, and the NOV (Notice of Variation) will be further evaluated and processed on basis of the technical, cost and other non-ESIA factors.

**Significant Environmental and/or Social Impacts** - where there are significant or potentially significant implications with respect to ESIA-related topics that cannot be readily quantified or mitigated and were not already addressed in the ESIA (and/or pose significant reputational exposure). In this case the screening results will be logged and a "Change ESIA Review" will be undertaken (see below).

### 6.3 Review and Redesign Change

For those proposed Changes for which the Screening suggests significant/potentially significant ESIA-related impacts, the ÇOK A.Ş. E&S Manager will undertake appropriate consultation internally and with the Consultants regarding any further mitigation or other measures (including further design development) needed to comply with the relevant ESIA standards. The determination of "significance" of a potential impact will be largely based on the corresponding definitions in the ESIA for the relevant environmental and social topics.

If no further residual significant environmental and social impact is predicted the change will be processed as a Technical Design/ Construction Method Change / Notice of Variation.

### 6.4 Stakeholder Engagement

#### 6.4.1. Inform specific stakeholders

ÇOK A.Ş. will directly inform, about their decision, specific stakeholders in writing where the design change process was initiated on their initial suggestion.

#### 6.4.2. Disclose Results and Consult Affected Stakeholders

If the Change /NOV results in significant environmental and/or social impacts that cannot be readily quantified or mitigated and/or affect additional stakeholders (as compared to stakeholders already involved in the ESIA process), and ÇOK A.Ş. still want to proceed with change then further disclosures on the Project website (plus local postings, flyers etc. as appropriate) and local public consultation may be undertaken if warranted with the directly affected stakeholders. The type and extent of disclosure/consultation will depend on the severity and scope of the Change impacts, with the intent being to ensure that the objectives and spirit of the public engagement of the ESIA process are maintained. A timeline of not more than 15 days will be proposed for receipt/inclusion of any feedback as appropriate on a case-by-case basis.

Any obligatory regulatory consent and other formal procedures will also be completed during this stage.

ÇOK A.Ş. will notify Lenders Group of Changes with significant environmental and social impacts or requiring public consultation within a timeframe pursuant to the terms and conditions agreed upon in the Finance Agreements. Upon agreeing on the reporting process with the Lenders Group, this document will be revised by ÇOK A.Ş. to indicate the agreed change notification process.

A summary of relevant changes and associates EHS impacts mitigation will be also included in the annual reports disclosed on the ÇOK A.Ş. website as indicated in section 4.5 of this document.

### 6.5 Finalisation of Change Impact Update and Change /NOV

ÇOK A.Ş.'s E&S Manager), with the assistance of the Consultants, will review and compile any feedback received from Lenders, Public and other parties on the Change Impact Update and will prepare a final version that includes due consideration of the feedback and comments received. On a case-by-case basis, further discussions of the intended mitigation measures may be needed with stakeholders during the finalisation process.

As applicable and appropriate, specific feedback can be given to the stakeholders that have raised queries comments with respect to the Change.

### 6.6 Submittal to KGM for Approval (if relevant)

If the original Change is related to a KGM-approved design/change of the construction method, by case, then the formal NOV will be prepared, including relevant measures/considerations from the Change Impact Update, and submitted to KGM for their review and approval. If the Change is not related to a KGM-approved design/ construction method, by case, then ÇOK A.Ş. will adapt the Change Impact Update to the current draft design stage/ construction method and further proceed as per the internal process.

Finally, ÇOK A.Ş. will implement the agreed Changes.

### 6.7 Summary

The intent of the CM Procedures for E&S assessment includes the following key principles:

- The proposed CM Procedures for E&S related issues will be integrated by ÇOK A.Ş. into the overall CM Procedures of the Project
- The Procedures will begin to assess design changes / construction method changes during the development process
- Significant proposed Changes will be reviewed for their E&S-relevance, and appropriate mitigation measures must be developed
- Proposed Changes that are irrelevant/insignificant get flagged in the internal "pre-screening" by ÇOK A.Ş. and are not included in the further Procedures
- Potentially significant E&S-relevant Changes undergo formal Screening and further change Review/evaluation (with consultants and other experts) as warranted on case-by-case basis
- All Changes screening results are logged, and can be reviewed by Lenders if desired

- The first preference for minimization of potential negative E&S impacts will be to review the proposed Change for alternative designs/ construction methods to avoid the impacts
- For any significant Changes for which additional mitigation measures are warranted, a Change Impact Update will be prepared and submitted to the Lenders
- Specific stakeholders will be directly informed in writing where the change process was initiated by them
- On case-by-case basis, further public information and potentially consultation will be implemented
- Proposed Changes stemming from approved KGM designs must be submitted to KGM for final approval.

In addition to the above, ÇOK A.Ş. will undertake monthly reporting of the Changes (and related Screening Results and Change Impact Updates etc).

# 7. EHS Training

ÇOK A.Ş. is committed to ensure that EHS training is delivered to all staff as required for delivering their roles. In the frame of the recruitment process, future ÇOK A.Ş. staff is verified for competency and experience. Following employment with ÇOK A.Ş. the staff receive ongoing EHS, initially in the form of the EHS induction training to ensure delivery of the Project health, safety, environmental, socio-economic and cultural heritage expectations. In addition, ÇOK A.Ş. staff further undertake any specific EHS training commensurate with their roles. This training programme is aligned with commitments and the international best practice.

EPC Contractor shall ensure that all construction works employees (own and subcontractor staff) are adequately qualified and have the environmental, health and safety, socio-economic and cultural heritage knowledge and skills required for the execution of their work duties.

Prior to the commencement of the work, EPC Contractor shall submit a Training Plan identifying specific training requirements against each job title for review and acceptance by ÇOK A.Ş.

The Training Plan is to be based on an analysis of training requirements and should comprise:

- an induction training programme to be delivered to all personnel in the workforce (own and subcontractor staff), vendor representatives and site visitors
- general and job/task-specific training as needed for the performance of the duties to which the person (own and subcontractor staff) is assigned to.

It is recommended that the Training Plan will include a matrix of training requirements showing the training frequency and the interval between refresher training sessions and including:

- general training;
- job/task–specific training;
- toolbox talks.

The Training Plan is also to define the mechanism in place to ensure that training is timely delivered, and the training programme is effective. For this purpose, the EPC Contractor is to perform regular evaluations throughout the construction works period to ensure that the Training Plan has achieved its objectives i.e. that all staff (own and subcontractor employees) are suitably qualified, competent and fit for their job duties. The frequency and timing of such evaluations is to be determined by the EPC Contractor and subject to ÇOK A.Ş. approval.

# 8. Management Review

Management Review is last element of the ESMP Cycle (Figure 1), closing the adaptive management feedback loop. ÇOK A.Ş. and EPC Contractor management reviews are undertaken at several levels of the organisation and include the following:

- ÇOK A.Ş. performance reviews.
- EPC Contractor EHS functional and project cross functional reviews.
- Project management leadership meetings.
- Weekly and monthly EHS function meetings.

ÇOK A.Ş. senior management periodically review the overall effectiveness of the EHS E&S management system, annually as a minimum. The purpose of the EHS Management Review is three-fold:

- To provide management with a summary of EHS performance over the year, including:
    - Non-conformities and corrective actions.
    - Monitoring and measurement results.
    - Audit results.
    - Shareholder and stakeholder feedback and concerns.
    - Issues concerning external stakeholders.
    - Adequacy of EHS resources.
    - Process performance.
    - Regulatory changes.
    - EHS incident trends, response and reporting.
- Identify opportunities for continual improvement.
- Summarise the significant E&S risks and their proposed mitigation, in the following period.

The annual EHS Management Review is used to develop the Annual EHS Activity Plan and targets for the following year to identify:

- Continual improvement opportunities.
- Any need for changes to the EHS Management System, including resource needs.

# 9. E&S Budgets

The E&S budgets will be determined upon the detailed design studies to be performed prior to construction works of each section, which will determine the technical needs of the Project since the degree of technical needs will also contribute to budget determination process.

# Annex A National Legislation and Permits

| Current Environmental Laws and Regulations | | Date and No of Issuing Official Gazette |
|---|---|---|
| | Environment Law | 11.08.1983, 18132 |
| *Permitting* | Regulation on Environmental Impact Assessment | 29.07.2022, 31907 |
| | Regulation on Environmental Auditing | 21.11.2008, 27061 |
| | Regulation on Environmental Permits and Licenses | 10.09.2014, 29115 |
| *Air Quality* | Regulation on Control of Air Pollution caused by Heating | 13.01.2005, 25699 |
| | Regulation on Assessment and Management of Air Quality | 06.06.2008, 26898 |
| | Regulation on Decreasing the Ozone Depleting Materials | 07.04.2017, 30031 |
| | Regulation on Control of Exhaust Gas Emission and Quality of Petrol and Diesel | 30.11.2013, 28837 |
| | Regulation on Control of Industrial Air Pollution | 03.07.2009, 27277 |
| | Regulation on the Reduction in the Sulphur Content of Some Fuel Types | 06.10.2009, 27368 |
| | Regulation on Odour Causing Emissions | 19.07.2013, 28712 |
| *Water Quality* | Regulation on Water Pollution Control | 31.12.2004, 25687 |
| | Groundwater Law (No. 167) | 23.12.1960, 10688 |
| | Regulation on Protection of Groundwater against Pollution and Deterioration | 07.04.2012, 28257 |
| | Regulation on Protection of Wetlands | 04.04.2014, 28962 |
| | Regulation on Control of Pollution Caused by Dangerous Substances in Water and its Environment | 26.11.2005, 26005 |
| | Regulation on Urban Wastewater Treatment | 08.01.2006, 26047 |

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| | Regulation on Water Intended for Human Consumption | 17.02.2005, 25730 |
| | Regulation on Surface Water Quality | 30.11.2012 28483 |
| | Regulation on Water Conservation against Pollution Caused by Nitrates from Agricultural Sources | 23.07.2016, 29779 |
| *Soil Quality* | Regulation on Pollutant Release and Transport Registration | 04.12.2021, 31679 |
| | Law on Protection of Soil and Land Use (No. 5403) | 19.07.2005, 25880 |
| | Regulation on Control of Soil Pollution and Contaminated Lands by Point Sources | 08.06.2010, 27605 |
| *Waste Management* | Regulation on Waste Management | 02.04.2015, 29314 |
| | Regulation on Control of Excavation Soil, Construction and Demolition Wastes | 18.03.2004, 25406 |
| | Regulation on Control of Waste Batteries and Accumulators | 31.08.2004, 25569 |
| | Regulation on Control of Vegetative Oils | 06.06.2015, 29378 |
| | Regulation on Control of Medical Wastes | 25.01.2017, 29959 |
| | Regulation on Control of End-of-Life Tires | 25.11.2006, 26357 |
| | Regulation on Control of Waste Electrical and Electronic Goods | 22.05. 2012, 22300 |
| | Regulation on Management of Waste Oils | 21.12.2019, 30985 |
| | Regulation on Control of End-of-Life Vehicles | 30.12.2009, 27448 |
| | Regulation on Landfills (Regular Storage of Wastes) | 26.03.2010, 27533 |
| | Regulation on Control of Packaging Wastes | 26.06.2021, 31523 |
| | Regulation on Control of Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs) | 27.12.2007, 26739 |
| | Regulation on Management of Radioactive Wastes | 09.03.2013, 28582 |
| | Regulation on Zero Waste | 12.7.2019, 30829 |

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| *Chemicals Management* | Regulation on the Prevention of Major Industrial Accidents and Reducing Their Effects | 2.3.2019, 30702 |
| | Regulation on the Transportation of Dangerous Goods by Road | 24.04.2019, 30754 |
| | Regulation on Safe Transportation of Radioactive Materials | 08.07.2005, 25869 |
| | Regulation on Safety Data Sheets on Hazardous Materials and Mixtures | 13.12.2014, 29024 |
| | Regulation on the Classification, Packaging, and Labelling of Materials and Mixtures | 11.12.2013, 28848 |
| | Regulation on Registration, Evaluation, Permission and Restriction of Chemicals | 23.06.2017, 30105 |
| *Noise Management* | Environmental Noise Control Regulation | 30.11.2022, 32029 |
| | Regulation Related to Noise Emissions by Equipment for Outdoor Use | 30.12.2006, 26392 |
| | Type Approval Regulation on Exterior Noise Emissions and Exhaust Systems of Motor Vehicles | 30.11.2000, 24246 |
| *Nature Conservation and Biodiversity* | Regulation on Wildlife Protection and Wildlife Enhancement Areas | 08.11.2004, 25637 |
| | Law on Forestry (No. 6831) | 08.09.1956, 9402 |
| | National Parks Law (No. 2873) | 11.08.1983, 18132 |
| *Cultural Heritage* | Law on Preservation of Cultural and Natural Assets (Law No. 2863) | 23.07.1983, 18113 |
| | Principal Decision (No. 658) | - |
| | Law on the Approval of the Convention for the Protection of the Intangible Cultural Heritage (No. 5448) | 19/01/2006 |
| *Land Use* | Law on Soil Preservation and Land Utilization (No. 5403) | 19.07.2005, 25880 |
| | Pasture Law (No. 4342) | 28.02.1998, 23272 |
| | Expropriation Law (No. 2942) | 08.11.1983, 18215 |
| | Settlement Law (No. 5543) | 26.09.2006, 26301 |

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| | Reconstruction Law (No. 3194) | 09.05.1985, 18749 |
| *Resource Management* | Energy Efficiency Law (No. 5627) | 02.05.2007, 26510 |
| | Regulation on the Improvement of the Energy Sources and the Efficiency in the Energy Usage | 27.10.2011, 28097 |

| **Existing Labour and H&S Laws and Regulations** | **Date and No of Issuing Official Gazette** |
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| **Laws** | |
| The Labour Law – No. 4857 (Aims to regulate the working conditions and work-related rights and obligations of employers and employees working within the confines of an employment contract.) | 10.06.2003, 25134 |
| The Occupational Health and Safety Law - Law No. 6331 | 30.06.2012, 28339 |
| **Regulations** | |
| Regulation on Safety and Health Requirements Working with Display Screen Equipment | 16.04.2013, 28620 |
| Regulation on Protection of Workers from the Risks of Vibration | 22.08.2013, 28743 |
| Regulation on Prevention of Workers from Risks Created from Noise | 28.07.2013, 28721 |
| Regulation on Management of Dust | 05.11.2013, 28812 |
| Regulation on Health and Safety Signs | 11.09.2013, 28762 |
| Regulation on Health and Safety at Construction Sites | 05.10.2013, 28786 |
| Regulation on Protection of Workers from the Risk of Explosive Media | 30.04.2013, 28633 |
| Regulation on Health and Safety Precautions Regarding Working with Asbestos | 25.01.2013, 28539 |
| Regulation on Manual Handling | 24.07.2013, 28717 |

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| Regulation on Principles and Procedures for Health and Safety Training of Employees | 15.05.2013, 28648 |
| Regulation on Use of Personnel Protective Equipment in Workplaces | 02.07.2013, 28695 |
| Regulation on Health and Safety Conditions Regarding Use of Work Equipment | 25.04.2013, 28628 |
| Regulation on Health and Safety Regarding Temporary Works | 23.08.2013, 28744 |
| Personnel Protective Equipment Regulation | 01.05.2019, 30761 |
| Regulation on Health and Safety Precautions Regarding Working with Chemicals | 12.08.2013, 28733 |
| Regulations on the Prevention of Biological Exposure Risks | 15.06.2013, 28678 |
| Regulation on the Employment of Pregnant or Lactating Women, Children's Care Homes and Breastfeeding Rooms | 16.08.2013, 28737 |
| Regulation on the Procedures and Principles of the Employment of Children's and Young Workers | 06.04.2004, 25425 |
| Regulation on Health and Safety Services | 29.12.2012, 28512 |
| Regulation on Health and Safety Risk Assessment | 29.12.2012, 28512 |
| First Aid Regulation | 29.7.2015, 29429 |
| Regulation on Protection of Buildings Against Fire | 19.12.2007, 26735 |
| Regulation on Work Stoppage in Workplaces | 30.03.2013, 28603 |
| Regulation on Emergency Cases in Workplaces | 18.06.2013, 28681 |
| Regulation on Health and Safety Precautions Regarding Working with Cancerogenic and Mutagenic Substances | 06.08.2013, 28730 |
| Regulation on Equipment and Protective Systems Used in Potentially Explosive Atmospheres | 30.6.2016, 29758 |
| Regulation on Laboratories Conducting Occupational Hygiene Measurement, Testing and Analysis | 24.1.2017, 29958 |

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| Regulation on Health and Safety Measures to be Taken in Workplace Buildings and Annexes. | 17.7.2013, 28710 |
| Regulation on the Duty, Authority, Responsibility and Training of Occupational Safety Specialists | 29.12.2012, 28512 |
| Regulation on the Duty, Authority, Responsibility and Training of Occupational Physicians | 20.7.2013, 28713 |

| **Other Applicable Legislation Relevant to the Project** | **Date and No of Issuing Official Gazette** |
|---|---|
| General Public Health Law (No. 1593) | 24.04.1930, 1489 |
| Law on the Protection of Cemeteries (No. 3998) | 13.06.1994, 21959 |
| Regulation on Preparation of Spatial Plans | 14.06.2014, 29030 |
| Unplanned Areas Construction Regulation | 02.11.1985, 18916 |
| Regulation on Workplace Establishment and Operating Licenses | 10.08.2005, 25902 |
| Regulation on Buildings to be Built in Disaster Areas" | 14.07.2007, 26582 |
| Türkiye Building Earthquake Regulation | 18.03.2018, 30364 |
| Disaster Regulation for Highway Engineering Structures | 07.12.2006 26369 |
| Türkiye Bridge Earthquake Regulation | 06.10.2020 31266 |
| Türkiye Insulated and Damping Bridge and Viaducts Earthquake Regulation | 06.10.2020 31266 |
| Regulation on the Obtaining, Processing and Control of the Sand, Gravel and Similar Materials | 08.12.2007, 26724 |

# Annex B International Regulations and Standards

- Convention Concerning the Protection of the World Cultural and Natural Heritage
- Convention for the Prevention of Marine Pollution from Land (Paris Convention)
- Bern Convention on Protection of Europe's Wildlife and Living Environment (1982)
- The Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) (1981),
- Convention on Long Range Transboundary Air Pollution (CLRÇOK A.Ş.) (1983)
- Vienna Convention for the Protection of the Ozone Layer (1988)
- Montreal Protocol on Substances Depleting the Ozone Layer (1990)
- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) (1991)
- Convention on Biological Diversity (Rio Convention) (1992)
- The International Convention on the Established of an International Fund for Compensation for Oil Pollution Damage (FUND 1992)
- International Convention on Civil Liability for Oil Pollution Damage (1992)
- UN Framework Convention on Climate Change (UNFCCC) (2004)
- Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (RAMSAR) (1994)
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1994)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1996)
- Kyoto Protocol (1997)
- United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, particularly in Africa
- European Landscape Convention (Florence Convention) (2001),
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention) (2004),
- Stockholm Convention on Persistent Organic Pollutant (POPs),
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (1972)
- Mediterranean Sea Protocol Concerning Specially Protected Areas and Biodiversity (1988), including related protocols,
- Convention On the Preventiof Of Marine Pollution by From Ships (Marpol 73/78)
- Convention on the Regulation of Whale Hunting
- Conservation of Intangible Cultural Heritage Convention
- Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property
- European Cultural Convention (1954)
- European Convention on the Protection of the Archaeological Heritage (1969)
- Convention for the Protection of the Architectural Heritage of Europe (1985)

## Annex C EHS COMMITMENTS REGISTER

*Table C-1 Water Quality, Hydrology and Hydrogeology*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Management Requirements** |
|---|---|---|---|---|---|
| Hydrology and Surface Water Quality | • Flood risk assessment reports will be prepared and implemented.<br>• A supplemental assessment of stormwater drainage risks to the environment will be undertaken to verify the stormwater drainage designs' effectiveness in mitigating impacts on surrounding land use, surface and groundwater or sensitive ecological receptors.<br>• The General Directorate of State Hydraulic Works (DSI), General Directorate of Water Management (SYGM) and General Directorate of Highways (KGM) will be consulted regarding hydrological studies and surface water quality and any additional studies (if needed) will be conducted prior to the construction phase based on the opinions of these institutions.<br>• The Project will comply with safety requirements to avoid leakages from hazardous chemicals/substances (e.g., diesel fuel, oil) stored on-site.<br>• Hazardous material storage areas will be designed and constructed in a way (paved areas with sufficient secondary containment, proper drainage systems, collection ponds etc.) to avoid potential contamination of the soil.<br>• The temporary waste storage areas will be constructed based on the requirements listed in "Regulation on Regular Storage of Wastes" and "Regulation on Waste Management".<br>• Hazardous materials will not be stored in excavated areas and all handling of all hazardous materials will be in accordance with the Control of Substances Hazardous to Health Procedure of the Project.<br>• Management of the construction sites during periods of heavy rainfall will be considered. Exposed surfaces and stored materials will be covered if necessary to reduce the erosion of sediments into surface waters.<br>• Water from concrete batching plant operation and washing of concrete mixers will be settled in sedimentation ponds and recirculated back into the production system to minimize freshwater use.<br>• Mud generated from concrete batch plant operations and the washing of cement trucks will be tested for hazardous characteristics.<br>• Vehicle washing activities and potable water treatment plants may generate industrial wastewater at the campsites. This wastewater will either be directed to a blind shaft, from which it will be collected by vacuum trucks for disposal, or pre-treatment options will be considered before discharge into receiving bodies. To address this, vehicle washing facilities will be securely constructed with a recirculatory system to prevent overflow, and oil-water separators will be installed in the vehicle washing areas. | IFC PS3<br><br>National Legislation | EPC Contractor | Construction Phase | Environmental Management Plan<br><br>Control of Substances Hazardous to Health Procedure<br><br>Watercourse Crossing Plan<br><br>Emergency Response Plan |
| Wastewater Management | ***Construction Phase***<br><br>• A package wastewater treatment plant (WWTP) with a domestic wastewater collection system will be established at each main campsite. For the subcontractor campsites, generated domestic wastewater will be collected in portable leak-proof quality septic tanks and wastewater then will be disposed of at the main campsite package WWTPs. The treated wastewater will then be discharged in accordance with the provisions of PDoEUCC.<br>• For the associated facilities and construction sites along the route, leak-proof quality septic tanks will be provided for the collection of the generated domestic wastewater. Collected wastewater will either be collected by vacuum trucks and disposed of at the nearest licensed WWTP as per the agreements/protocols to be executed with the related municipalities/licensed companies or to the main campsite package WWTPs.<br><br>***Operation Phase*** | IFC PS3<br><br>National Legislation | EPC Contractor<br><br>(construction)<br><br>O&M Contractor<br><br>(operation) | Construction Phase,<br><br>Operation Phase | Environmental Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Management Requirements |
|---|---|---|---|---|---|
| | • It is possible to construct a package WWTP in Motorway Service Areas. If the treated wastewater is not reused, it will be discharged at a location deemed appropriate by the relevant PDoEUCC. | | | | |
| Drainage Management | *Construction Phase*<br><br>• Replacement or alteration of water supply by connection to new sources;<br>• Installation of low permeability cut-off walls around engineering works or particular receptors to reduce flow impacts;<br>• Installation of temporary low-permeability cut-off walls that can be removed or degrade over time to prevent long term level or flow alterations;<br>• The flood mitigation measures (as deemed necessary and where appropriate) include:<br>  ○ amendment of the road geometry;<br>  ○ flood relief culverts;<br>  ○ replacement flood storage areas;<br>  ○ flood walls;<br>  ○ flood protection embankments, levees or berms;<br>  ○ local embankments to protect isolated features; and<br>  ○ changing the resistance of the floodplain to flood flow by:<br>  ▪ removal of existing obstructions, including vegetation;<br>  ▪ ground lowering; or<br>  ▪ creating new openings in existing embankments (to increase conveyance).<br><br>*Operation Phase*<br><br>• To minimize pollutant buildup on the road surface, regular cleaning and maintenance of the motorway will be undertaken.<br>• Relocation or modification works to protect surface waters against any imposed changes. | IFC PS3<br><br>EBRD PR3<br><br>National Legislation | EPC Contractor in Construction<br><br>O&M Contractor in Opretaion | Construction Phase,<br><br>Operation Phase | Environmental Management Plan<br><br>Water Crossing Plan<br><br>Drainage Management Plan |
| Hydrogeology and Groundwater Quality | • The DSI, SYGM and KGM will be consulted regarding the need of hydrogeological studies and groundwater quality and any additional studies prior to the construction phase. Hydrogeology will be assessed at sites where aquifers may be directly affected or exposed, including borrow pits and quarries.<br>• In the case of drilling well(s) for water supply, drilling and well development operations will be carried out in accordance with American Society for Testing and Materials (ASTM) standards. Pollutants (such as oil and fuel) originating from machinery and equipment will be prevented from mixing with groundwater. During the preparation of the area for drilling, the possible pollutions from the excavation will be eliminated.<br>• Pumping tests will be performed after drilling operations, within the scope of the necessary permits obtained from DSI.<br>• In case groundwater is encountered during the construction, groundwater will be abstracted from the work area by dewatering studies. Treatment, storage and disposal will be done according to regulatory requirements after performing the necessary analyses and obtaining relevant permits.<br>• If deemed necessary, a Water Sustainability Study, containing a Water Balance and hydro census study, could be conducted for the Project area to assess identified water requirements and potential resources.<br>• No fuelling of vehicles or equipment will take place within excavated areas. If heavy equipment cannot be moved to appropriate fuelling points, an impervious surface (such as a drip-tray) will be used for refuelling this equipment to prevent accidental releases to groundwater aquifers. | IFC PS3<br><br>National Legislation | EPC Contractor | Construction Phase | Environmental Management Plan<br><br>Control of Substances Hazardous to Health Procedure<br><br>Watercourse Crossing Plan<br><br>Emergency Response Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Management Requirements |
|---|---|---|---|---|---|
| | • Hazardous materials will not be stored in excavated areas.<br>• The Watercourse Crossing Plan will include monitoring of surface water quality, drainage infrastructure assessment as well as groundwater quality procedures if deemed necessary. The monitoring of the groundwater resources will be based on the hydrogeological investigations. | | | | |

*Table C-2 Land Use, Soil and Geology*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
|---|---|---|---|---|---|
| Geology and Geomorphology | *Pre-construction Phase*<br><br>• Detailed studies on geological and geotechnical components (including seismicity) will be completed prior to the construction phase.<br><br>*Construction Phase*<br><br>• Worksite will be minimized to the smallest extent possible in order to meet Project's works and activities;<br>• The foundations' footprints and depths have been properly dimensioned; hence the excavations and the consequent physical-mechanical disturbances will be minimized;<br>• The flattening and excavation works will be minimized to the extent possible in order to limit the morphological disturbances;<br>• Part of the removed material (if presents the suitable geotechnical characteristics) will be re-used as a fill material at the Project Area in order to limit the use of raw material; | IFC PS3 | EPC Contractor | Before construction works initiation,<br><br>Construction Phase,<br><br>After construction works finalization | Environmental Management Plan<br><br>Quarries and Associated Facilities Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan |
| Geohazard and Seismology | • Before and during the construction activities of the Project, the provisions of "Türkiye Building Earthquake Regulation" will be complied with.<br>• Detailed investigations will be conducted for assessing the stability conditions for the structural elements for both normal operation loads and under seismic loads.<br>• Several structures will be developed as part of the proposed motorway (culverts, overpasses, etc.) and these will all be designed according to Turkish and international design standards requiring specific structural characteristics related to slopes of cuts and fills, footing sizes and many other considerations.<br>• Related studies (e.g., geological, geotechnical and hydrological studies) will be completed for the Project before the construction phase. | IFC PS3<br><br>National Legislation | EPC Contractor | Before construction works initiation,<br><br>Construction Phase | Environmental Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan |
| Soil and Subsoil | • The foundations' footprints and depths have been properly dimensioned; hence the excavations and the consequent physical-mechanical disturbances will be minimized;<br>• Excavations and soil abstractions will be minimized as much as possible, taking into account the need to meet building design and construction requirements;<br>• The best available techniques (BATs) will be employed to maximize the re-use of soil (cut) and minimize the amount of imported topsoil (fill).<br>• Hazardous material storage areas will be designed and constructed in a way to avoid potential contamination into the soil;<br>• Appropriate treatment and spill control systems will be placed (where relevant) in water crossings, fresh water sources and protected areas where surface runoff may adversely affect soil, surface water and groundwater media;<br>• The temporary waste storage areas will be constructed based on the requirements listed in the Regulation on Landfilling of Wastes and Regulation on Waste Management.<br>• During the detailed design phase, the Ground Investigation will include a number of samples (100-200m sampling frequency for a linear site) in accordance with European guidelines, to draw meaningful conclusions regarding the risk of soil contamination.<br>• The Project will comply with relevant legal and project safety requirements to avoid leakages from hazardous material storage areas on-site; | IFC PS3<br><br>EBRD PR3<br><br>National Legislation<br><br>GIIP | EPC Contractor | Construction Phase | Environmental Management Plan<br><br>Quarries and Associated Facilities Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan<br><br>Control of Substances Hazardous to Health Procedure<br><br>Pesticide and Herbicide Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| | • Regular maintenance of vehicles and machinery/equipment will be undertaken to ensure that leakages of hazardous material are prevented;<br>• Use of machinery/vehicles will be strictly limited within the construction sites and along the appropriate access roads;<br>• All refuelling tankers and all heavy machinery used at the site will have iron plate trays, and these trays will be placed under the pipe connection points to prevent accidental leakage to the soil during refuelling;<br>• Maintenance of the vehicles and machinery/equipment will be conducted in a designated area where there is impermeable surface (concrete floor etc.). If needed, secondary containment system will be present;<br>• Spill containment and clean-up materials will be made available and easily accessible at site, instructions on how to use spill containment and clean-up materials will be included in the kits;<br>• Training on spill response, use of containment and clean-up material (spill kits) will be provided to workers (including the subcontractor workers);<br>• Adequate and properly maintained tanks, paved ground, spill containment materials and proper secondary containment systems with sufficient volume will be provided for storage of fuel/oil and other hazardous substances;<br>• Wastewater flows from the Project activities will be properly managed;<br>• Polluted water will be properly collected or managed to prevent the soil pollution;<br>• If some vegetated/uncontaminated land is expected to be permanently removed (e.g. onto the new buildings' footprints and the roads), the topsoil will be properly stored and re-used for reclamation of nearby artificial sites. | | | | Soil and Topsoil Management Plan |
| Contaminated Soils | • A pre-construction survey will be conducted before any fieldwork begins to identify potential contamination. The survey will include visual inspections and, if needed, soil sampling and analysis for suspected contamination.<br>• If soil contamination is suspected during construction related excavation, a detailed assessment will be conducted in order to determine if there are any contaminant sources present within the site or in the near vicinity.<br>• In case that results of a soil assessment show compliance with site-specific soil quality limits set by the national legislation, materials coming from levelling activities could be excavated, transported, and used in the construction of embankments and/or backfill;<br>• If the soil is contaminated, the local regulatory agencies will be collaborated to select solutions for treatment or disposal, follow the provision of national legislation. Remediation strategy of any contaminated site will be presented to PDoEUCC and approved by related authorities;<br>• Temporary stockpiling of contaminated soils or hazardous materials will be avoided/minimized;<br>• All construction phase personnel will be trained to recognize signs of contamination during earthworks.<br>• A human health risk assessment will be performed on a case-by-case basis. If soil sampling is conducted, the results will be evaluated based on human health risks, potential sources of ground gas and vapor, and environmental risks.<br>• A methodology for dealing with contaminated soil will be established. Occupational Health and Safety (OHS) rules will be defined and followed when handling contaminated soil. Standard Operating Procedures (SoPs) will be prepared for all activities involving contaminated soil. | IFC PS3<br><br>EBRD PR3<br><br>National Legislation | EPC Contractor | Before construction works initiation,<br><br>Construction Phase,<br><br>After construction works finalization | Environmental Management Plan<br><br>Quarries and Associated Facilities Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan<br><br>Soil and Topsoil Management Plan |

*Table C-3 Air Quality*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
|---|---|---|---|---|---|
| Dust generation and dust suppression control | • Use of water suppression at construction sites, borrow pits and quarries and transportation routes, especially in hot-dry seasons;<br>• Loads in all trucks transporting dust-generating materials will be sprayed with water to suppress dust;<br>• Use of water suppression for control of loose materials on paved or unpaved road surfaces;<br>• Use of dust suppression techniques, such as covers, water suppression, or increased moisture content for open materials storage piles;<br>• Use of closed haulage systems;<br>• Loading and unloading of material will be carried out without scattering to the extent possible;<br>• Speed reduction for the means travelling inside the construction site;<br>• In case alternative roads are present, construction traffic will avoid passing through the settlements. If unavoidable, necessary measures (i.e. speed limits) will be taken to prevent/minimise transportation related emissions and inform the communities about the activities and schedule;<br>• During the days of extreme wind conditions, construction and material extraction works will be suspended temporarily and/or production amounts will be reduced (e.g. amount of material extracted at the quarries/borrow sites) at locations close to sensitive receptors;<br>• Monthly monitoring campaign will be conducted during the construction phase at baseline locations close to the active construction sites and active operation of associated facilities and the results should be compared with the national air quality legislation and IFC General EHS Guidelines – Air Emission and Air Quality and additional mitigation measures will be taken when necessary. | IFC PS3<br><br>EBRD PR3<br><br>National Legislation<br><br>GIIP | EPC Contractor | Construction Phase | Environmental Management Plan |
| Emissions from stationary/non-stationary sources | • Activities will be conducted trying to use the minimum required number of means at the same time.<br>• Vehicle engines and other machinery shall be kept turned on only if necessary, avoiding any unnecessary emission.<br>• All equipment and machinery will be maintained for compliance with standards and technical regulations for the protection of the environment and have appropriate certification.<br>• Machinery and equipment shall be periodically checked and maintained to ensure their good working conditions.<br>• Monthly monitoring campaign will be conducted during the construction phase at baseline locations. | IFC PS3<br><br>EBRD PR3<br><br>GIIP | EPC Contractor | Construction Phase | Environmental Management Plan |
| Climate Change and Greenhouse Gas (GHG) Emissions | • The applicability of the BATs developed within the European regulatory framework will be evaluated and integrated into the Project design.<br>• All employees will be provided climate, resource and energy efficiency awareness training.<br>• The most efficient equipment in terms of fuel usage and effective operation will be chosen. Maintenance of all machinery and equipment will be periodically conducted to ensure efficient fuel use and effective operation as well.<br>• Efficient resource and material use will be promoted through the development and implementation of management plans to reduce direct and indirect GHG emissions due to the Project.<br>• No idling and out-of-scope operation of the machinery and equipment will be allowed.<br>• In order to reduce the GHG emissions resulting from waste disposal processes, the amount of waste generated will be minimized and generated wastes will be recycled accordingly.<br>• Green Energy Certificate will be obtained in order to induce a decrease in Scope 2 related GHG emissions which is linked to the construction and operation phases of the Project. | IFC PS3<br><br>EBRD PR3<br><br>National Legislation<br><br>GIIP | EPC Contractor<br><br>(in construction)<br><br>O&M Contractor<br><br>(in operation) | Construction Phase,<br><br>Operation Phase,<br><br>Closure Phase | Environmental Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| | • During the closure phase, rehabilitation of land will help to recover lost carbon sink by converting the disturbed land to its original state as much as possible, which will act as a long-term mitigation measure. | | | | |
| Climate Change Risks | • Earthworks will be designed to include measures to mitigate shrinkage such as a suitable foundation depth, selection of appropriate material and planting selection/location to ensure stability.<br>• The motorway and its structures will be regularly monitored for early detection of any potential issues, enabling timely maintenance and interventions to ensure the integrity of the infrastructure.<br>• After the extreme climate events, the motorway and its structures will be assessed for climate-induced damages, ensuring prompt repairs and minimizing disruptions to traffic flow and safety.<br>• Spare and emergency capacity will be integrated into safety and operational systems to ensure continuous service in the event of climate-related failures, maintaining the functionality of critical systems such as traffic management and lighting.<br>• Weather forecasts for extreme weather conditions (such as extreme temperatures, heavy rainfall, etc.) will be closely followed to inform planning and adjust working hours, as well as implement appropriate response strategies during these conditions.<br>• The Emergency Response Plan will be regularly updated to incorporate the mitigation actions regarding chancing climate conditions.<br>• Appropriate trainings will be provided to Project personnel about Climate Change and related risks to increase awareness.<br>• A collaborative, partnership approach to climate resilience will be adopted, involving stakeholders such as local authorities, environmental agencies, and infrastructure operators to enhance the Project's ability to adapt to climate challenges.<br>• Appropriate operation-phase adaptive capacity measures will be captured within the operation ESMS and evidence will be provided on how recommended mitigation is being integrated into the Project delivery strategy, in addition to definition of monitoring requirements.<br><br>***For Extreme Heat:***<br><br>• Materials will be used in temporary construction facilities that are designed to withstand high temperatures and include appropriate ventilation features.<br>• Materials will be used in the pavement design that are designed to withstand high temperatures, to minimise the risk of thermal expansion and pavement buckling e.g. bitumen grade and modified binders.<br>• Design and construct infrastructure with materials that are resistant to high temperatures and thermal expansion.<br>• Implement programs to prevent heat-related illnesses among road maintenance and construction workers, including scheduling work during cooler hours of the day.<br>• Operation and maintenance plans will include requirements for regular maintenance of road surface and inspections following extended periods of high temperatures (heat waves).<br>• Operational Emergency Response Plan will incorporate health and safety measures for employees and road users during extreme high temperatures.<br><br>***For Severe Storms:*** | Equator Principles IV<br><br>GIIP | EPC Contractor<br><br>(construction)<br><br>O&M Contractor<br><br>(operation) | Construction Phase,<br><br>Operation Phase | Climate Change Risk Assessment<br><br>Flood Risk Assessment<br><br>Emergency Response Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | • Higher priority should be given to sections from beginning to the middle of road.<br>• Consider putting in place procedures to evaluate the integrity of main infrastructures after severe storms events.<br>• Consider putting in place procedures to evaluate the integrity of main electrical systems after severe storms events.<br>• Use the information coming from the existing meteorological station to reschedule the working hours of personnel that work outdoors to avoid been exposed in case of severe storms.<br><br>*For Flooding (in particular focusing on the section between KM:025+000 - 040+000):*<br><br>• Flood Risk Assessment will be undertaken to provide detailed analysis of the potential for flooding based on the site's topography, hydrology, and local climate conditions; and to identify areas vulnerable to flooding. Accordingly, the design will take into account the impacts of climate change, including appropriate allowance for climate change to ensure that the risk of flooding is minimised, and there is no increase in flood risk to surrounding areas as a result of the proposed development.<br>• Temporary or permanent flood barriers will be installed in areas identified to be at risk of flooding.<br>• Install sensors to detect rising water levels and provide early warnings to road users and maintenance teams.<br>• Flooding sensors and alerts will be installed or provided to alert workers and road users.<br><br>*For Wildfires:*<br><br>• Consider building firebreaks along the motorway, especially in sections between KM:080+000 – 100+000 which resulted more prone to wildfires. These can act as barriers to slow or stop the spread of fire.<br>• Work closely with local fire departments and forest service agencies to develop coordinated response plans for wildfire emergencies. This includes joint training exercises and shared communication systems.<br><br>*For Strong Wind:*<br><br>• A more in-dept analysis of wind conditions during operation might be conducted to identify sections exposed to strong wind where eventually install windbreaks or barriers along exposed sections of the motorway to reduce wind velocity. | | | | |

*Table C-4 Noise and Vibration*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
|---|---|---|---|---|---|
| Construction-related Noise Management | • Selection of equipment with lower sound power levels;<br>• Installing silencers for fans;<br>• Installing suitable mufflers on engine exhausts and compressor components;<br>• Installing acoustic enclosures for equipment casing radiating noise;<br>• Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas;<br>• Re-locating noise sources to less sensitive areas to take advantage of distance and shielding;<br>• Reducing Project traffic routing through community areas wherever possible;<br>• Developing and implementing a grievance mechanism to record and respond to complaints;<br>• In case of any noise related grievance occur, noise measurements will be carried out immediately at the area where the grievance is received;<br>• If monitoring results indicate that noise levels are above the defined limits, then noise abatement measures will be implemented (e.g. noise barriers, walls or earth berms along motorway route or next to receptor buildings, soundproofing, relocation of the sensitive receptor, etc).<br>• Carrying out the regular maintenance of the construction equipment in order to minimize the noise levels generated by the equipment; and<br>• Performing quarterly monitoring at the baseline noise measurement locations close to active construction sites and/or associated facilities and taking necessary precautions accordingly.<br>• A detailed noise modelling studies which includes long term noise measurement studies, shall be conducted for determination of the design details and locations of the noise abatement measures during the superstructure design phase. | IFC PS3<br><br>IFC PS4<br><br>National Legislation<br><br>GIIP | EPC Contractor | Construction Phase | Environmental Management Plan |
| Operation-related Noise Management | • A road surface with equivalent or better acoustic properties than CNOSSOS road surface type NL04 (SMA 0/5) will be used within the scope of the Project.<br>• Maintenance of the motorway will be carried out regularly to reduce the roughness of running surfaces;<br>• Noise levels will be monitored at the receptor points where the limit values are exceeded, at least for a year on quarterly basis;<br>• In case of any noise related grievance occur, noise measurements will be carried out immediately at the area where the grievance is received;<br>• Specific noise mitigation measures will be selected and designed to achieve compliance with the Regulation on Control of Environmental Noise, the IFC Performance Standards, the IFC/World Bank EHS Guidelines and relevant good international industry practice (GIIP). | IFC PS3<br><br>IFC PS4<br><br>National Legislation<br><br>GIIP | O&M Contractor | Operation Phase | Environmental Management Plan |
| Vibration Management | ***Construction Phase***<br><br>• Residents will be informed about the proposed blasting times and/or any deviation from this programme.<br>• Construction and blasting activities will be scheduled to minimise potential vibration related impacts.<br>• Prior to the construction phase, consultation with the Museum Directorate will be carried out for the locations HRM-7, HRM-18, HRM-19, HRM-21, HRM-23, HRM-30, HRM-38, HRM-39 and HRM-40 where vibration impact is expected to exceed the regulatory limit values due to the construction activities. Based on the results of consultation, measures to be identified will be taken prior to any construction activity at these areas.<br>• During the blasting activities, the vibration limits (5 mm/s or 2mm/s) should not be exceeded.<br>• During the blasting activities, vibration measurement studies will be performed for frequency ranges on the closest receptors and vibration sensitive structures to the blasting locations. Within this regard, the nearest | IFC PS3<br><br>IFC PS4<br><br>GIIP | EPC Contractor<br><br>(construction)<br><br>O&M Contractor<br><br>(operation) | Construction Phase,<br><br>Operation Phase | Environmental Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | receptors and vibration sensitive structures to the blasting locations will be identified at the site prior to the blasting activities.<br>• Baseline surveys of existing structure and integrity at structures close to the blasting sites will be undertaken so that impacts and any damage arising from blasting activities will be identified during the periodic monitoring studies.<br>• Blasting activities will be carried out at least 300 m away from the nearest receptors/settlements.<br><br>*Operation Phase*<br><br>• Maintenance of the motorway will be carried out regularly to reduce the roughness of running surfaces, so the vibration levels are minimized. | | | | |

*Table C-5 Landscape and Visual*

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| **Landscape and Visual Management** | • There will not be tall planting of trees within the 50 m motorway corridor for the Project to avoid the disruption from potential vegetative contact with power supply and catenary posts.<br>• Where topsoil stripped, and stored on site for reuse, the stockpile mounds will be stored at a maximum height of 2 m in order to prevent the integrity of topsoil.<br>• During the construction phase, restricted hours of working will be proposed especially for built up areas. Using machinery during those hours will be avoided in residential properties.<br>• Stockpiles to have maximum 5 m height to reduce the visual awareness within the views.<br>• To minimize light pollution from the site, every effort will be made to minimize the number of lights consistent with health and safety standards.<br>• Implementation of dust suppression during construction.<br>• The housekeeping of the entire Project Area will be given importance throughout the lifetime of the Project.<br>• External grievance mechanism will be implemented for regular monitoring of the affected people's grievances with regard to visual impacts.<br>• After the completion of construction, the areas used as construction areas (mobilization areas etc.) will be returned to their original use. | • IFC PS3<br>• GIIP | • EPC Contractor (construction)<br>• O&M Contractor (operation) | • Construction Phase,<br>• Operation Phase | • Soil Erosion, Reinstatement and Landscape Management Plan<br>• Environmental Management Plan |

*Table C-6 Community Health, Safety and Security*

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| Construction Phase Traffic Management | • Project disclosure activities will include informing communities about the Project traffic management controls and grievance mechanism.<br>• Collaboration with local communities and responsible authorities will be ensured to improve signage, visibility, road safety conditions especially near the roads and other locations where children may be present.<br>• Continuous stakeholder engagement process and grievance mechanism will be in place according to SEP of the Project:<br>  ○ to exchange information on the Project with the local community and other stakeholders; and<br>  ○ to record and respond any complaints and concerns raised by the local community members and other stakeholders.<br>• Appropriate traffic signs, signals, lights, and markings will be placed at the required areas to prevent potential accidents/incidents. Barriers will be placed at the required areas to protect both human and assets.<br>• Consideration will be given to traffic volumes at the rush hours of the day and delivery of equipment and materials will be utilised at quieter periods to avoid increased congestion on the roads used by the nearby communities.<br>• Journey Management System will be implemented including a route survey to clarify the transportation route of the equipment/material prior to transportation.<br>• All vehicles will be subjected to periodic maintenance and inspections. Daily checks will be carried out before using the vehicle by the driver/operator or other authorized person e.g., mechanic or inspection team. The specimen "Daily Vehicle/Equipment Checklist" lists the daily check items which includes GIIP measures such as IVMS (In vehicle Monitoring System) and front view camera, ABS brakes (and Electronic Stability Program ESP, where possible)<br>• Necessary reversing procedures will be identified including installing reversing aids on vehicles, reversing sensors etc. Trained banksman will be used when reversing cannot be avoided.<br>• Vulnerable areas such as schools and hospitals will be identified for construction traffic access planning, with vehicles being monitored via a vehicle tracking system.<br>• Parking areas will be designated with signs and reverse parking will be implemented for emergency situations.<br>• The routes to be used by pedestrians will be segregated from heavy vehicle routes.<br>• Strategically located crossings (overpasses or underpasses) will be planned and constructed at intervals that allow easy access to ecosystem services, lands, and other essential resources.<br>• The speed limitations will be implemented. A speed control mechanism will be implemented by e.g., using hand-held radar and random speed controls. The discipline procedure will be established and implemented for the operators who are breaching the speed limits.<br>• Seatbelts will be worn in vehicles and machinery when being operated.<br>• No vehicle/equipment/material will be allowed to enter work areas before obtaining approval from the security.<br>• Changes of the condition of the existing roads will be monitored regularly and necessary road correction remediation actions will be taken where necessary.<br>• In severe weather conditions, a HSE site supervisor will evaluate the safety of the roads while taking into account the safety of the operators and will decide whether it is safe for driving or not.<br>• Loading areas will be designed appropriately to prevent/minimize vehicle/pedestrian contact and property damages.<br>• All operators will be licensed/certified. Repair and maintenance of vehicles will be done by the authorized services. | IFC PS3<br><br>IFC PS4<br><br>National Legislation<br><br>GIIP | EPC Contractor | Construction Phase | Traffic Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | • Fatigue and distraction procedures will be established considering the local legal requirements and the nature of the work. | | | | |
| Operation Phase Traffic Management | • Horizontal (i.e., shoulder lines, traffic lines, parking lines, etc.) and vertical signing (i.e., traffic signs, plates, etc.) of the motorway will be placed according to KGM's technical specifications.<br>• Reflective signs and equipment will be kept clean for clear visibility. The warning signs will be monitored regularly to ensure that they are not removed or damaged and replaced as needed.<br>• The motorway pavement structure will be undergone routine maintenance to eliminate any damage to the road surface that may risk traffic safety. To keep the road functional, extensive repair and reconstruction work will also be carried out as needed.<br>• Within the scope of the Project, Intelligent Traffic System (ITS) will be built. Through the ITS, real-time signage warning systems will be used to warn drivers of traffic congestion, accidents, adverse weather conditions and other potential hazards.<br>• Measures will be taken to prevent parking vehicles at the entrance and exit roads of the service facilities.<br>• Regular checks will be conducted for visibility, lighting, and drainage issues, particularly after heavy rainfall.<br>• In order to assess and eliminate potential hazards regarding the use of underpasses and overpasses built for traffic, pedestrians, and livestock, the following measures will be implemented:<br>o Routine maintenance to address lighting, drainage, and structural issues.<br>o Safe interaction between vehicles, pedestrians, and livestock will be monitored. | IFC PS3<br><br>IFC PS4<br><br>GIIP | O&M Contractor | Operation Phase | Traffic Management Plan |
| Communicable Diseases | • Pre-employment health screening and regular medical checks of workers will be conducted as per national regulatory requirements.<br>• Adequate hygiene facilities, such as handwashing stations and sanitation equipment, will be provided throughout the Project site.<br>• Shared facilities and common areas will be regularly disinfected to minimize the spread of pathogens and to maintain hygiene standards.<br>• Isolation protocols will be established for individuals displaying symptoms of illness to prevent transmission.<br>• Collaboration with local healthcare authorities will facilitate rapid response and containment in case of disease outbreaks.<br>• Workers will be encouraged to perform social distancing measures and personal protective equipment (PPE) to reduce the risk of transmission.<br>• Employee training will be provided to raise awareness and promote healthy lifestyles among workers and the community. | IFC PS4<br><br>National Legislation<br><br>GIIP | EPC Contractor<br><br>(construction)<br><br>O&M Contractor<br><br>(operation) | Construction Phase,<br><br>Operation Phase | Community Health, Safety and Security Procedure<br><br>Occupational Health and Safety Plan<br><br>Control of Substances Hazardous to Health Procedure |
| Security | ***Construction Phase***<br><br>• The Project will make an agreement with a private security company to provide unarmed, trained security personnel.<br>• Security personnel/officers will;<br>o Respect and preserve human dignity, as well as maintain and uphold all people's human rights.<br>o Remember that they should only provide preventative and defensive services, always exercising restraint and caution and prioritizing the prevention of injuries or fatalities and the peaceful resolution of conflicts. | IFC PS4<br><br>National Legislation | EPC Contractor<br><br>(construction)<br><br>O&M Contractor | Construction Phase,<br><br>Operation Phase | Community Health, Safety and Security Procedure<br><br>Traffic Management Plan<br><br>Employee Code of Conduct |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | ○ Have no criminal histories or history of abuse.<br>○ Receive conflict resolution and cultural awareness, code of conduct trainings.<br>○ Respect the right of local communities to associate, assemble, and speak out in opposition to the Project.<br>○ At all times fulfil the duty imposed upon them by the EPC Contractor, by serving the Project and protecting the community and all persons against illegal acts, consistent with the high degree of responsibility required by their profession and Code of Conduct.<br>○ Have no law-enforcement authority and will not encroach on public security forces' duties and responsibilities.<br>○ Not commit any act of corruption. They will also rigorously oppose and combat all such acts.<br>• Security personnel may use force only as a matter of last resort and only for preventive and defensive purposes in proportion to the nature and extent of the threat and in a manner that respects human rights, national principles of proportionality are to be respected in interpreting this provision. The arbitrary or abusive use of force is prohibited. The use of physical force, at any time, will be reported to the EPC Contractor to enable the appropriateness of the action to be investigated.<br>• The use of firearms by security personnel is prohibited at all times.<br>• Security patrols will be done at regular intervals.<br>• Entry of unauthorized persons will be prevented by using appropriate tools and gadgets. Warning signs about unauthorized entry will be available at various locations at the Project crossings.<br>• Entry and removal of equipment/material will be controlled at the control points; the movement of equipment/material will be allowed after the approval of the relevant department.<br>• A grievance mechanism will be in place for the affected communities to express their concerns about the security arrangements and acts of the security personnel.<br>• To ensure the visitors' safety and health in the Project during the construction phase, relevant Project officials will continuously accompany the visitors during their stay on the Project Site, and all visitors will be recorded.<br>• All visitors will be given brochures explaining the Project Area, site rules and what to do in case of emergencies.<br>• PPE will be provided to visitors coming to the site under the PPE needs at the visited areas.<br>• All areas that may be dangerous to visitors (waste sites, generators) will be marked with appropriate signs and locked.<br><br>*Operation Phase*<br><br>• Security aspects will be reconsidered based on the type of transportation, i.e., passenger or freight.<br>• During the storage and transport of hazardous materials on the motorway, a hazardous material security awareness program will be implemented, which may include provisions for personnel security, prevention of unauthorized access, and measures to reduce risks,<br>• All visitors will be given brochures explaining the Project Area, site rules and what to do in case of emergencies,<br>• PPE will be provided to visitors coming to the site under the PPE needs at the visited areas,<br>• All areas that may be dangerous to visitors (waste sites, generators) will be marked with appropriate signs and locked. | | (operation) | | Security Management Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| Infrastructure and Equipment Design and Safety | • The design and construction of motorway service facilities and engineering structures and the production of superstructure, electrification, signalling and telecommunication, testing and commissioning in the Project will be conducted in line with the Technical Specifications specified in the Construction Contract.<br>• Several structures will be developed as part of the proposed motorway (culverts, overpasses etc) and these will all be designed according to national and international design standards requiring specific structural characteristics related to slopes of cuts and fills, footing sizes and many other considerations.<br>• Detailed investigations will be conducted for assessing the stability conditions for the structural elements for both normal operation loads and under seismic loads. | National Legislation | EPC Contractor | Design Phase,<br><br>Before construction works initiation | |
| Transport of Dangerous Goods | • Appropriate legally required control measures and certifications will be ensured for all transportation of dangerous materials on motorways ensuring that occupational safety, environmental safety standards are complied with.<br>• Appropriate legally required screening and acceptance procedure will be implemented for the motorway transportation of bulk or packages representing a potential risk of release to the environment in the event of accidents.<br>• Emergency Response Plan will be implemented for the Project and will include spill prevention and control measures, routing and timing of hazardous materials transport to minimize risk to the community (e.g. restricting transport of hazardous materials on some routes), construction of protective barriers and other technical measures (e.g. drainage/receptacle provisions) at sensitive locations (e.g. water resources and settlements) and disclosure of emergency preparedness and response information to the potentially affected communities.<br>• A Hazardous Material Security Awareness Program will be implemented. This program will include measures such as personnel training for secure handling, access control to prevent unauthorized entry, and protocols to reduce transport risks. | IFC PS4<br><br>GIIP | EPC Contractor | Construction Phase | Control of Substances Hazardous to Health Procedure<br><br>Emergency Response Plan |
| Blasting | • All blasting activities which will be carried out in Muratlı, Osmanlı, Tepeköy, Dereköy and 68+000 Quarries will be carried out at least 298 m away from receptors/settlements. If blasting activities will be carried out at a location closer than this distance, blasting pattern and explosive quantities will be optimized to be in line with the vibration effect as below the 5 mm/s at the sensitive receptors.<br>• Proper and timely communication and information exchange between the Project Company/EPC Contractor and residents, are essential to prevent unnecessary concerns. Therefore, residents will be informed about the proposed blasting times and/or any deviation from this programme.<br>• Construction and blasting activities will be scheduled to minimise potential vibration related impacts.<br>• During the blasting activities, vibration measurements will be performed for frequency ranges on the closest receptors. With this regard, the nearest receptors to the blasting locations will be identified at the site prior to the blasting activities.<br>• Baseline surveys of existing building structure and integrity at receptors close to the blasting sites will be undertaken so that impacts and any damage arising from blasting activities will be identified. | IFC PS4<br><br>GIIP | EPC Contractor | Construction Phase | Emergency Response Plan |

*Table C-7 Social Impact*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
|---|---|---|---|---|---|
| Population and Demography | • Priority will be given to local people during recruitment process where applicable.<br>• Project Specific Camp Site Management Plan (including Workers' Accommodation) in line with the IFC/EBRD's Guidance Note on Worker's Accommodation (2009) will be implemented and requirements listed in this plan will be periodically monitored.<br>• Workers' accommodations will be designed in compliance with the processes and standards of the Guidance Note on Worker's Accommodation, and the basic needs of the workers will be provided within the borders of the accommodation to limit the interaction of the workers with the local communities to prevent the pressure on the local utilities and the services.<br>• Measures will be implemented to mitigate environmental impacts associated with increased population, such as waste management programs, and pollution control measures, to preserve the natural ecosystem and quality of life for residents.<br>• The Employee Code of Conduct will be implemented and enforced to ensure proper behaviour and respect for local customs.<br>• Cultural awareness, code of conduct and ethic training will be provided to workers to prevent any cultural conflicts.<br>• The mukhtars of the neighbourhoods will be informed about the construction of the workers' accommodation, and the workers that will be accommodated in the camps will be registered in the neighbourhood system.<br>• A community grievance mechanism (GRM) will be in place to record all complaints, including the anonymous complaints and necessary measures will be taken accordingly. | IFC PS1<br><br>IFC PS2 | EPC Contractor &<br><br>Project Company (joint responsibility) | Construction Phase | Employment Policy Document<br><br>Local Content Procedure<br><br>Camp Site Management Plan (including Workers' Accommodation)<br><br>Employee Code of Conduct<br><br>Labour Influx Management Procedure<br><br>Human Rights Policy<br><br>Human Rights Management Plan |
| Economy and Employment | • The Project will implement its human resource policies and procedures in compliance with the IFC PS2 on Labour and Working Conditions.<br>• The Project will develop tools and plans that guarantee employee rights, comply with IFC PSs and ILO conventions, and provide a human rights-respectful work environment.<br>• Individuals whose livelihood sources are affected by the Project impacts will be given priority in the recruitment process of the Project.<br>• Formal and transparent recruitment process will be implemented to provide equal opportunity to the applicants.<br>• The mukhtars of the neighbourhoods will be informed about the recruitment opportunities of the Project (announcements, banners) to reduce the requirement of the non-local labour force.<br>• Where applicable, vocational training will be provided to local people to maximize the local labour force.<br>• All subcontractors will be monitored to prevent child and forced labour.<br>• Equal procurement opportunities will be provided to local small businesses in line with the Local Content Procedure.<br>• Before the procurement, local suppliers will be identified, and priority on purchases will be given to goods and services from local businesses.<br>• Capacity development will be applied, including the OHS and HR. | IFC PS2<br><br>GIIP | EPC Contractor &<br><br>Project Company (joint responsibility) | Construction Phase | Employment Policy Document<br><br>Local Content Procedure<br><br>Employee Code of Conduct<br><br>Labour Influx Management Procedure<br><br>Human Rights Policy<br><br>Human Rights Management Plan |
| Community Engagement and Grievance Mechanism | • The Project will conduct broad consultations with the project-affected persons (PAPs), affected communities, and other interested stakeholders. Detailed visual materials and KMZ files of the route will be shared with local communities to gather their feedback, particularly regarding underpasses in settlements and potential barriers to access ecosystem services. Their input will be incorporated into the further detailed design and mitigation measures of the Project. | IFC PS1<br><br>IFC PS5 | Project Company | Before construction works initiation, | Stakeholder Engagement Plan<br><br>Resettlement Framework |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| | • A Community Grievance Mechanism will be in place.<br>• Community Liaison Officer(s) will be hired and the stakeholder engagement and collect grievances.<br>• Local authorities and the villagers will be informed before the construction activities within the forest land to not create any limitation on firewood collection, herbs collection and hunting.<br>• Continues stakeholder engagement will be ensured by the community liaison officer and stakeholders will be engaged in planning mitigation measures, ensuring community participation throughout the process. | | | Construction Phase | |
| Land Use and Land-based Livelihoods | • Impacts on lands will be minimized as far as possible by keeping the Project construction footprint as narrow as possible and efficiently restoring any damaged areas.<br>• Physical and economic displacement impacts will be minimized during the design phase of the Project.<br>• Resettlement Action Plan (RAP) will be prepared and implemented to bridge the gaps between national Expropriation Law and IFC PS5.<br>• Vulnerable people that will be affected by the land acquisition will be determined and specific assistance will be provided (such as for transportation and legal matters).<br>• There are seasonal residents (approximately 10 people) coming for agricultural production in Yukarısırt Neighbourhood in Muratlı, Tekirdağ. This group will be considered during the preconstruction survey, and their loss will be compensated accordingly if there are affected by the land acquisition.<br>• All construction works will be continued within the borders of the designated areas and in case of an unplanned damage, loss of the affected PAPs will be compensated by the contractors.<br>• Before the start of the construction, the landowners/users will be allowed to harvest their crops, and they will be informed in a timely manner.<br>• Any business losses will be compensated at a full replacement value.<br>• If compensation alone is not sufficient to restore livelihoods, livelihood restoration in accordance with IFC requirements will be implemented.<br>• All of the disturbed sites will be rehabilitated as appropriate and agreed upon, following the completion of construction works.<br>• Access roads will be constructed in parallel to the motorway near agricultural areas and pasture areas to prevent the livelihood impacts, where possible.<br>• Any loss of or damage to crops caused by the Project activities will be compensated.<br>• Monitoring will be held within the scope of the RAP to analyse the livelihood impacts of the beekeepers.<br>• Unviable lands will also be surveyed during the asset inventory survey. In addition to the criteria specified in the expropriation law, these lands will be expropriated if requested by the owners, together with the reasoned petitions submitted by the owners to KGM.<br>• A Resettlement Framework aligned with IFC PS5 is prepared and will be implemented for managing land acquisition and resettlement activities, ensuring that the process respects the rights of affected individuals while adhering to relevant legal and international standards.<br>• Following the completion of the RAP including LRP, an independent third-party audit (completion audit) will be conducted to evaluate the full implementation of these plans. The RAP Completion Audit will verify that all commitments have been met and that resettled individuals have received the compensation and support promised under the resettlement framework.<br>• RAP field studies will be conducted to identify any social or livelihood impacts.<br>• Stakeholder feedback will be integrated into the mitigation strategies in the RAP.<br>• The RAP studies will include an assessment of these cumulative impacts, ensuring that all relevant factors are taken into account cumulatively.<br>• Ecosystem services use will be regularly monitored, with local communities engaged to identify and address emerging issues promptly. | IFC PS1<br><br>IFC PS5<br><br>National Legislation | Project Company | Before construction works initiation,<br><br>Construction Phase | Resettlement Framework<br><br>Resettlement Action Plan-including Livelihood Restoration Plan |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| | • Sustainable practices will be promoted among users to prevent the overexploitation and degradation of resources due to increased demand.<br>• Water sources and water quality will be regularly monitored to ensure no indirect impacts occur.<br>• The beehives and beekeepers are usually affected by the Project in terms of relocation. The relocation processes take place before the construction phase due to the land acquisition. | | | | |
| Infrastructure, Utilities, and Services | • Before the establishment of the construction and the workers' accommodations, an engagement with the local authorities, including the Municipalities, will be held, and energy, transportation and water demand of the Project will be shared.<br>• Workers' accommodation will provide health services to the Project workers to not create pressure on the health services of the local communities,<br>• At minimum first aid and the medical unit will be established.<br>• District or province government hospitals will be used when required.<br>• In case of damage to the local infrastructure, including but not limited to telecommunication, electricity, road and water sources, immediate maintenance will be applied.<br>• A Project-specific Grievance Mechanism will be used to record, avoid, and solve the incident caused by the Project on the local infrastructure. | IFC PS2 | EPC Contractor | Before construction works initiation,<br><br>Construction Phase | Emergency Response Plan<br><br>Community Health, Safety and Security Procedure<br><br>Traffic Management Plan |
| Gender Considerations | • For the job opportunities and benefits created within the scope of the Project to be equally beneficial, it will be ensured that the vulnerable groups, especially those affected by the Project, and women are informed at a sufficient level.<br>• Enhancement measures will be developed to increase women's use of the Project opportunities and will be included in the relevant Local Employment Plan (Human Resources Plan) to be developed.<br>• The Project will encourage women to benefit from the employment and local procurement opportunities to be created.<br>• Women-only stakeholder engagement meetings will be organized to ensure gender equality on the information disclosure process. | IFC PS2<br><br>IFC PS5 | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Local Employment Plan<br><br>Stakeholder Engagement Plan |
| Vulnerable Groups | • Assistance will be provided;<br>  ○ In legal matters, if needed,<br>  ○ In acknowledging and signing official documents,<br>  ○ To access compensation payments,<br>  ○ To find alternative land or house,<br>  ○ To obtain personal documents, and<br>  ○ In travel needs, when required.<br>• Priority will be given to vulnerable groups during the recruitment process. | IFC PS1<br><br>IFC PS5 | Project Company | Before construction works initiation,<br><br>Construction Phase | Stakeholder Engagement Plan |
| Human Rights | • Respect for human rights will be incorporated into management, governance practices and programs as defined in the International Bill of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work;<br>• Contractors, suppliers, and business partners will share this commitment to human rights, including those in regard to working conditions, freedom of association, freedom of speech, collective bargaining, maximum working hours, fair wages and benefits, equal opportunity and freedom from discrimination;<br>• The Project will not discriminate against any individual based on race, colour, national or ethnic origin, religion, age, sex, sexual orientation, sexual minorities, religious minorities, ethnic minorities, gender | IFC PS1<br><br>IFC PS5 | EPC Contractor &<br><br>Project Company (joint | Before construction works initiation,<br><br>Construction Phase, | Human Resources Management Plan<br><br>Human Rights Policy |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | identity or expression, marital status, family status, pregnancy, disability status, genetic characteristics or any other arbitrary characteristic unrelated to the individual's job performance;<br>• Diversity will be promoted at all levels of the Project;<br>• Employment, supply chain, training, and community investment programmes will be enhanced to advance the socio-economic empowerment of women in local communities, and eliminate barriers to the advancement and fair treatment of women in workplaces;<br>• Collective and customary rights of local communities residing near the Project construction and operation areas will be respected and consultation with all relevant stakeholders will be ensured;<br>• Continuous improvement will be strived in upholding and respecting human rights through ongoing dialogue with internal and external stakeholders;<br>• The Project will not engage in any forms of child labour, forced labour and modern slavery for all activities engaged and across the entire supply chain;<br>• When working with public or private security forces, a human rights and security approach that is consistent with the Voluntary Principles on Security and Human Rights will be implemented;<br>• Confidential mechanisms will be established to identify, receive and respond to human rights and ethical concerns from any stakeholder and in a neutral manner;<br>• Changing human rights conditions in the jurisdictions will be continuously reviewed and evaluated;<br>• The Project will take action to terminate any contracts or arrangements with the contractors and suppliers if their practices and performance conflict with the requirements of the Human Rights Management Plan. | | responsibility) | Operation Phase | |

*Table C-8 Labour and Working Conditions*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
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| Terms of employment and working conditions | • Employees will be provided with information including, but not limited to, entitlements to wages, hours of work, overtime arrangements and overtime pay, and any benefits (such as sick leave, maternity/paternity leave, or vacation).<br>• All employees will have an employment contract (permanent or temporary) and a copy of the signed contract will be provided to employees. Contracts will include at least the following information:<br>o Date of contract (date signed)<br>o Full names and details of the parties<br>o Fee and date of payment<br>o Job description<br>o Duration (fixed or indefinite)<br>o Rights and duties of the parties<br>o Working hours<br>o Conditions of termination<br>• Contracts will be explained verbally to all employees where necessary to ensure that employees understand their rights prior to signing any employment contract.<br>• Wages, benefits and working conditions offered will be comparable to those offered by similar employers in İstanbul and Tekirdağ and in the same sector.<br>• Recruitment processes will be transparent, public and non-discriminatory, providing equal opportunities with respect to ethnicity, religion, language, gender and sexual orientation. Priority will be given to the recruitment of skilled, semi-skilled and unskilled workers from the settlements in the Project's area of influence.<br>• All employees (including employees of subcontractors) must be registered with the Social Insurance Institution (SSK) of Türkiye before initiation of their works.<br>• The Project will not cause retrenchment of existing personnel, but collective dismissal of the construction personnel will be required, after the completion of the construction phase. However, contract of limited duration will be used, and the workers will be informed on the duration of their work.<br>• It should be noted here that; retrenchment of the construction workforce following the completion of construction activities will also be done in compliance with Turkish Labour Law; subordinated regulations and contractual requirements.<br>• The Project Company will adhere to national labour laws and IFC PS 2 requirements to ensure that all workers have reasonable working hours, with appropriate rest periods and limitations on overtime. Türkiye defines working hours as maximum 45 hours per week. The Project Company requires all sub-contractors to monitor excessive overtime i.e., workers' hours exceeding national regulations on working time. All employees must be entitled to a 1-hour rest breaks during the daily working hours.<br>• Working hours and overtime will be clearly documented and monitored to prevent excessive working hours. Any overtime will be voluntary, compensated at a fair rate, and within legal limits. Contractors and subcontractors will also be required to comply with these standards, with regular monitoring to ensure alignment across all parties involved in the Project.<br>• Payroll records of the direct and indirect workers will be monitored. All workers will be paid equal for equal jobs.<br>• Social insurance payments of all direct and indirect workers will be strictly controlled by the Project Company. If required, awareness meetings will be held with the Project workers. The Project Company will conduct independent audits and inspections.<br>• The Project Company will be responsible for monitoring contractors and supply chain companies. | IFC PS2<br><br>National Legislation | EPC Contractor<br><br>(construction) &<br><br>Project Company(both in C&O) &<br><br>O&M Contractor<br><br>(operation) -Joint Responsibility | Before construction works initiation,<br><br>After construction works finalization,<br><br>Before operation works initiation | Employment Policy Document<br><br>Human Resources Management Plan<br><br>Human Rights Policy |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| Workers' accommodations and labour influx | • A Project-specific Camp Site Management Plan in accordance with the IFC Guidance Note on Workers' Accommodation (2009) will be implemented.<br>• Camp sites will be sited and designed so as not to be affected by the environmental or operational impacts of the construction site (e.g. noise, dust emissions), but sufficiently close that workers do not have to spend excessive time traveling from their accommodation to the construction site. If the site is not within walking distance, transportation will be provided to and from the site.<br>• Workers' accommodation will be clean and safe and will meet the basic needs of workers, providing a minimum of space for each worker; sanitary, laundry and cooking facilities.<br>• Heating, air conditioning and ventilation will be appropriate to climatic conditions and will provide workers with a comfortable and healthy environment in which to rest and spend their leisure time.<br>• Drinking water will be provided to Project workers and water for food preparation, washing and bathing areas will meet the requirements of the Regulation on Water Intended for Human Consumption.<br>• Adequate toilet facilities (toilets, urinals, washbasins and showers) will be provided for the number of people expected to work at the facility.<br>• Rooms and dormitory facilities will be designed and constructed to provide workers with adequate rest and to maintain good standards of hygiene.<br>• First aid and medical facilities, as well as provisions for safety against potential hazards (fire, etc.) will be provided at camp sites.<br>• Domestic wastewater and waste generated at the campsites will be properly managed and disposed of in accordance with the requirements of the Environmental Management Plan.<br>• Workers accommodated in the camps will be made aware of all rules governing the accommodation.<br>• The security of the workers and their property (personal belongings) will be ensured on site.<br>• Entry/exit to the campsites will be restricted under all possible circumstances and will be done through a designated gate with security personnel.<br>• Security personnel will conduct routine checks at the construction site.<br>• Security cameras will be present at the campsites (where applicable).<br>• Pre-employment and periodic health screenings of employees will be conducted in compliance with legal requirements to ensure the health and safety of the workforce.<br>• An occupational health physician will be appointed for the Project in accordance with related legislation.<br>• Regular training sessions on health-related matters will be provided to workers by the occupational health physician. | IFC PS2 | EPC Contractor | Before construction works initiation,<br><br>Construction Phase | Camp Site Management Plan<br><br>Environmental Management Plan<br><br>Occupational Health and Safety Plan |
| Occupational Health and Safety | • The Project-specific HSSSE Policy and Occupational Health and Safety Management Plan will be implemented to provide a safe environment for employees, including subcontractors, visitors and community members, and to protect the environment and assets.<br>• Site-specific emergency response plans and risk assessments will be prepared.<br>• Labor Law No. 4857 and Occupational Health and Safety Law No. 6331 and relevant regulations and international standards (e.g. IFC PS2) will be applied throughout the Project.<br>• Construction phase activities will comply with the requirements of the Regulation on Health and Safety at Construction Sites. | IFC PS2<br><br>National Legislation | EPC Contractor (construction)<br><br>O&M Contractor<br><br>(operation) | Construction Phase | Health, Safety, Security, Social and Environmental (HSSSE) Policy<br><br>Occupational Health and Safety Plan<br><br>Emergency Response Plan |
| Migrant Workers | In case of employment of migrant labour within the Project: | IFC PS2 | EPC Contractor | Before construction | Employment Policy Document |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | • Compliance will be ensured with IFC PS-2 and Article 13 of the Implementation Regulation of the Law on Work Permits of Foreigners, which remains in force pursuant to the fourth paragraph of the Provisional Article 1 of Law No. 6735 on International Workforce.<br>• It will be ensured that the migrant workers are employed under terms and conditions that are substantially equivalent to those of other workers performing similar tasks (such as leave entitlements, wages, etc.).<br>• Actions will be taken to address and resolve any language barriers that may arise with migrant workers to ensure open and effective communication.<br>• OHS practices will be planned and implemented in multiple languages (as needed), and the local language of migrant workers will be used for information posted on the HSE information boards at the Project site and camp site, is required. | National Legislation | | works initiation,<br><br>Construction Phase | Human Resources Management Plan<br><br>Human Rights Policy<br><br>Human Rights Management Plan |
| Informal, Child and Forced Labour | • Forced labour will be prohibited by ensuring full compliance with national legislation and the provisions of relevant conventions and other international standards. These measures will be reflected in the Project's relevant plans and policies such as Employment Policy Document, Human Rights Policy, Human Resources Management Plan and Human Rights Management Plan.<br>• The EPC Contractor will enforce minimum age expectations (aged at least 18 years and above) and maintain records that this has been checked.<br>• Regular audits will be conducted to assess contractor compliance with policies on child and forced labour, and corrective actions will be taken if non-compliance is identified.<br>• Contractors will be monitored on their performance related to human rights risks, such as prohibition of forced and child labour.<br>• The Project Company will require all contractors and suppliers in the supply chain to comply with national and international standards against informal, child, and forced labour.<br>• Supplier contracts will include requirements for fair labour practices.<br>• Monitoring mechanisms will be established to track supplier adherence to labour standards, and corrective actions will be enforced for any non-compliant suppliers. | IFC PS2<br><br>National Legislation | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Employment Policy Document<br><br>Human Resources Management Plan<br><br>Human Rights Policy<br><br>Human Rights Management Plan |
| Unionisation and Collective Bargaining | • All workers will have the freedom to join an association and union in accordance with national labour law. The Project Company will ensure that workers are aware of their rights to join local trade unions.<br>• Non-retaliation measures will be implemented to protect employees from any adverse action due to union activities, promoting a safe environment for exercising collective bargaining rights.<br>• Workers' representatives will be elected to give workers a clear way to share their concerns and discuss working conditions.<br>• Regular meetings between management and worker representatives will be conducted to help address any issues and support good working relations. | IFC PS2<br><br>National Legislation | EPC Contractor&<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Employment Policy Document<br><br>Human Resources Management Policy and Plan (HRMPP) |
| Gender Considerations | • The Project Company will comply with the national law and will apply equal opportunities to women in all other areas. Further measures will remain and non-discrimination and put in place to encourage female participation in non-employee workforce, such as positive equal opportunity providing specific training where required, enabling flexibility and job-sharing opportunities for women with children to participate.<br>• A grievance mechanism for workers will be established and implemented, providing a channel for addressing grievances related to labour and working conditions issues including Gender-Based Violence and Harassment (GBVH) at the workplace as well as facilitating anonymous submission of grievances.<br>• The Project Company will actively monitor and review gender-related policies to ensure they remain effective and aligned with best practices for equal opportunity and fair treatment. | IFC PS2<br><br>National Legislation | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Employment Policy Document<br><br>Human Resources Management Policy and Plan (HRMPP)<br><br>Stakeholder Engagement and Grievance |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | | | | | Mechanism (GRM) Procedure<br><br>Gender Based Violence and Harassment Management Plan |
| Workers' Grievance Mechanism | • The Project Company will implement the grievance mechanism for Project workers as defined in the Stakeholder Engagement and Grievance Mechanism Procedure and will oversee its implementation by its subcontractors. The grievance mechanism will provide avenues for Project workers to lodge their grievances. The Project Company will ensure that workers are informed about the grievance mechanism at the time of recruitment and that it is easily accessible to them.<br>• Grievance forms and boxes will be made available at the Project site.<br>• Monitoring and auditing of the employee grievance procedure will be conducted to determine the effectiveness of the procedure and also to identify recurring employee issues. Monitoring and auditing will be conducted on a quarterly basis and/or whenever recurrence occurs three times in a row. | IFC PS2 | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Stakeholder Engagement and Grievance Mechanism (GRM) Procedure |

*Table C-9 Biodiversity*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
|---|---|---|---|---|---|
| Avoidance | *Construction Phase*<br><br>• A comprehensive options appraisal/analysis of alternatives for all quarries and associated facilities will be conducted to assess their suitability and potential impacts, including biodiversity considerations and other relevant factors, prior to any decision-making regarding facility selection. As a primary principle, the location of quarries and associated facilities within areas designated for their biodiversity value (e.g., KBAs, IBAs) will be avoided. If no viable alternatives exist outside such areas, this will be demonstrated through a detailed option appraisal/analysis of alternatives, with clear consideration of biodiversity sensitivity, before any decisions are made regarding facility selection.<br>• The method, criteria, and timeframes for conducting the analysis of alternatives will be outlined in the Quarries and Associated Facilities Management Plan. The analysis of alternatives will be performed for all associated facility sites, not only those located within biodiversity-sensitive areas.<br>• Option appraisal/analysis of alternatives will be undertaken also with the intent or assessing the possibility of relocating areas for associated facilities within modified habitats, in order not to insist on natural habitats, in particular grasslands, which could host endemic or restricted-range species.<br>• Facility footprints will be minimised.<br><br>*Operation Phase*<br><br>• Minimisation of the footprint of individual facilities. | IFC PS6<br><br>EBRD PR6<br><br>GIIP | EPC Contractor (construction)<br><br>Project Company<br><br>O&M Contractor (operation) | Construction Phase<br><br>Operation Phase | Quarries and Associated Facilities Management Plan<br><br>Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP) |
| Minimization | *1. Vegetation and topsoil removal:*<br>• Limits of clearing and construction areas will be clearly signed or fenced in order to reduce the risk of footprint creep;<br>• In order to minimize the mortality, biological surveys (pre-construction surveys) will be implemented before vegetation clearance to identify and relocate fauna species. An expert wildlife ecologist will perform pre-construction surveys in the areas to be cleared (not earlier than 7 days before). The survey will focus on fauna species with limited mobility (e.g. reptiles and amphibians) that cannot move ahead of construction. If any of these species are observed, they will be collected by the ecologist and translocated to undisturbed but similar sites within the LSA.<br>• Pending its reuse, topsoil within the temporary facility footprint will be stripped before construction activities, appropriately stored, and used for restoration at the end of the construction phase. Topsoil storage areas will be signalled, covered to protect them from runoff and wind erosion. If the topsoil and stockpiles are stored for a long period of time (more than 1 years) the topsoil stockpiles will be seeded with appropriate methods to avoid erosion from wind/rain to protect the organic matter content. Seeding of stockpiles areas will be performed favouring fast growing and ground covering flora species able to minimize soil erosion and will be periodically checked for IAS;<br>• Vehicle movement will be restricted to the existing roads that connect the construction sites with the surrounding areas and vehicle speed will be restricted to ≤35km/h. Off road driving will be prohibited in order to avoid any unnecessary disturbance of natural vegetation.<br>• If erosion phenomena are observed environmental engineering techniques will be put in place to stop the erosion and ensure soil protection and the development of natural vegetation. Environmental engineering techniques will include as appropriate: erosion control mat, live crib wall, rock mattresses, hydro seeding and afforestation with appropriate species etc. | IFC PS6<br><br>EBRD PR6<br><br>GIIP | EPC Contractor &<br><br>Project Company (joint responsibility) | Construction Phase | Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP) |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | *2. Changes in local hydrology and water quality:*<br>• See the mitigation measures defined in Table E-1.<br><br>In addition, the following specific measures will be applied:<br><br>• Culverts/channels will be used as appropriate in correspondence of river crossing or drainage features to avoid the interruption of waterways and drainage features and the formation of stagnant water. These culverts/channels will be implemented an installed in a way that will ensure the continuity of the water feature and will not constitute a barrier to fish movement.<br>*3. Increase in vehicular traffic:*<br>• Install speed limits and animal crossing signs on the access roads and enforce speed limits along the site access road;<br>• Avoid the accumulation of stagnant water and organic waste within the construction site roads, that could attract wildlife;<br>• If employees and contractors encounter a fauna specimen while driving or mobilizing equipment, they will wait until it moves on by itself or they will ask the assistance of the Environmental technician for its safe removal and relocation in a suitable environment;<br>• Raise awareness among employees and contractor mobilizing equipment on site about the protected species/habitats potentially present in the area, in order to ensure constant monitoring and promote actions to be taken if wildlife is encountered.<br>*4. Emission of pollutants, dust and particulate matter:*<br>• Speed limit for all vehicles will be implemented so as not to generate dust emissions, and all trucks will be properly maintained at all times;<br>• Any unpaved access roads will be adequately compacted and periodically graded, maintained, and sprayed with water as needed, to minimize dust from vehicle movements. If water spraying is deemed insufficient, other means of surface treatment (e.g., hygroscopic media, such as calcium chloride, and soil natural–chemical binding agents) for unpaved access roads, or exposed stockpiles, will be implemented, by using a sprinkler system or a "water-mist cannon";<br>• Soil and any dusty material temporary stored on site will be appropriately covered and managed to control dust emissions;<br>• If the topsoil and soil stockpiles are stored for a long period of time (more than 1 year), they will be planted with appropriate methods in order to avoid erosion from wind and rain, and to protect the organic matter content;<br>• Excavations will be stopped in the event of strong winds (generally wind speeds of 10 m/s or more).<br>*5. Emission of noise and vibrations:*<br>• See the mitigation measures defined in Table E-5.<br><br>In addition, the following specific measures will be applied:<br><br>• Night works will be avoided (from 8 pm to 6 am) in proximity of natural habitats to reduce impacts to nocturnal fauna species;<br>• Rock blasting activities will be performed during daytime and at regular times to enhance local fauna habituation to noise and to avoid disturbance during critical hours for many species (dusk and dawn);<br>• Blasting activities in the quarries will be interrupted during periods of importance for the passage of migratory bird species. | | | | |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| | ***6. Introduction and spreading of alien species:***<br>• The use of non-native flora species, and especially of species classified as invasive alien species must be avoided during rehabilitation/restoration works;<br>• If spreading of invasive species is observed, an appropriate eradication program will be developed and implemented. | | | | |
| Minimization | ***1. Presence of new buildings/infrastructures:***<br>• Channels/culverts will be used as appropriate in correspondence of river crossing or drainage features to avoid the interruption of waterways and drainage features and the formation of stagnant water. These culverts/channels will be implemented an installed in a way that will ensure the continuity of the water feature and will not constitute a barrier to fish movement;<br>• Based on monitoring results, additional mitigation measures could be possibly planned in specific motorway sections where wildlife crossings are plausible/expected: fencing of particular motorway sections to avoid wildlife crossing and conduct wildlife toward safe crossing locations, creation of underpasses or overpasses designed in a way to be conductive for wildlife;<br>• Should engineering works be needed to reduce erosion phenomena, appropriate natural engineering techniques will be used to ensure soil protection and natural vegetation development (e.g. erosion control mat, live crib wall, rock mattresses, hydro seeding).<br>***2. Changes in local hydrology and water quality:***<br>• See the mitigation measures defined in Table E-1.<br>***3. Highspeed motorway traffic:***<br>• Based on monitoring results, additional mitigation measures could be planned in specific motorway sections where wildlife crossings are reported;<br>• Fencing of specific motorway sections to avoid wildlife crossing and to conduct wildlife toward safe crossing locations; creation of underpasses or overpasses;<br>***4. Emission of noise and vibration:***<br>• See the mitigation measures defined in Table E-5.<br>***5. Emission of light:***<br>• It is recommended to keep the number of light sources to the minimum necessary to ensure driver safety;<br>• Preferred types of lights for exterior lighting (e.g., lights on site due to security reasons) include:<br>• Low pressure sodium lamps (SOX): orange lamps seen along roadsides;<br>• Light emitting diodes (LEDs): light source of choice, emitted more directional, warmer colour temperatures (~ 3000°K);<br>• Lights triggered by presence detectors, and lights oriented to the ground;<br>• The following types of lights should be avoided:<br>• Mercury lamps (MBF): bluish-white lamps (attract insects and tolerant bat species);<br>• High pressure sodium lamps (SON): brighter pinkish-yellow lamps; used as road lighting;<br>***6. Introduction and spreading of alien species:***<br>• The use of non-native flora species, and especially of species classified as invasive alien species will be avoided during rehabilitation/restoration works;<br>• Should invasive species be observed, an appropriate control program will be developed and implemented. | IFC PS6<br><br>EBRD PR6<br><br>GIIP | Project Company &<br><br>O&M Contractor(joint responsibility) | Operation Phase | Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP) |

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
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| Rehabilitation/ Restoration | *Construction Phase*<br><br>• Areas cleared during construction for temporary use, such as quarries, borrow sites, storage area for excess excavated material and blasting areas, will be restored, as soon as possible, with the goal of producing a stable vegetative cover to minimize erosion, dust and spreading of invasive alien species, and the aim of re-establish the original habitat with a positive impact on biodiversity.<br>• Vegetation and topsoil restoration activities will be performed on all temporary facilities, which account for a total of 874.16 ha, including 560.78 ha for storage areas, 153.66 ha for quarries, 99.48 for borrow pits, 25.46 ha for sub-construction sites, 21.87 ha for camp sites and 12.91 ha for concrete plants.<br>• Only plants that are native to the region will be used for restoration, soil improvement, erosion control, stream banks and habitat rehabilitation. Seeding and planting of grass shrubs and tree species typical of the local vegetation species, such as grasslands and mixed forest vegetation succession, will be used to ensure optimal ground cover. The action is expected to produce positive effects on local flora, fauna and habitats.<br><br>*Operation Phase*<br><br>• Areas cleared during construction for temporary use, such as quarries, borrow sites, storage area for excess excavated material and blasting areas, will be restored, as soon as possible, with the goal of producing a stable vegetative cover to minimize erosion, dust and spreading of IAS, and the aim of re-establish the original habitat.<br>• Only plants that are native to the region will be used for restoration, soil improvement, erosion control, stream banks and habitat rehabilitation. Seeding and planting of grass shrubs and tree species typical of the local vegetation species, such as short-grass steppes and mixed forest vegetation succession, will be used to ensure optimal ground cover. | IFC PS6<br><br>EBRD PR6<br><br>GIIP | EPC Contractor (construction)<br><br>Project Company<br><br>O&M Contractor (operation) /joint responsibility | Construction Phase<br><br>Operation Phase | Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP)<br><br>Biodiversity Offset Management Plan (BOMP) |

*Table E-10 Cultural Heritage*

| **Parameter/ Aspect** | **Mitigation Measures** | **Requirement** | **Responsibility** | **Frequency/Timing** | **Management Plan detailing Monitoring Requirements** |
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| Cultural Heritage Management[1,2] | • The site-specific mitigation measures and recommended actions will be taken for each cultural heritage asset given in Chapter 7.3.2.1 of the ESIA Report.<br>• If the Project route intersects with archaeological sites, adjustments will be made to the route wherever feasible. For areas where route changes are not possible, the Project Company will follow the requests of the Museum Directorate. These requests may include:<br>  ○ Rescue Excavation: If a site is at risk due to the planned project, the Museum Directorate may request a rescue excavation (or salvage excavation) to be conducted. This type of excavation aims to recover and document cultural heritage before construction or development activities begin. The excavation will be carried out by professional archaeologists, and the findings are documented and preserved. For areas requiring rescue excavations, the region's climatic conditions will be considered, and work will commence promptly after the winter season.<br>  ○ Preservation or Capping: In some cases, if excavation is not feasible or if the site needs to be preserved in its original location (in situ), the Museum Directorate might request that the area be covered (capped) and preserved. This method is often used for archaeological sites that are too large or too sensitive to be fully excavated but can still be protected under the surface. If this is the case, the Project Company will comply with the requirements set by the Museum Directorate in order to preserve the cultural heritage.<br>• Indirect impacts to cultural heritage will be avoided or, if not possible, minimized. This will be achieved through an assessment of indirect impacts during the design phase, disclosing and engaging with relevant stakeholders on the results, and incorporating the resulting agreed mitigation into the Project design. The assessment will include indirect impacts such as noise, vibration, visual impacts, and setting.<br>• Archaeological immovable assets that are located on the Project route and its area of influence may be buried or covered entirely with vegetation. For this reason, during the deforestation activities on the Project site, a visual inspection will be conducted by the Project Company. In compliance with the Law No: 5226 and Law No:3386 and the 4th article of the revised Law No: 2863, in case any movable-immovable cultural asset is encountered as a result of the activities conducted during the field preparation and construction stages, the activities will be stopped and Directorate of the İstanbul Archaeology Museum or Museum of Directorate of the Tekirdağ Archaeology Museum will be notified immediately.<br>• Cultural Heritage Management Plan and Chance Find Procedure, which are necessary for the management of the "chance finds", have been prepared. All operators, who are to be engaged in the soil works, and Project employees will receive training regarding "project requirements, protection of cultural and archaeological heritage, laws and legislations related with the archaeological and cultural heritage and cultural heritage management plan and chance find procedures".<br>• In case of any chance find is encountered during the construction activities, further steps will be taken in accordance with the plans and procedures and the relevant bodies, and the Directorate of the Museum will be notified immediately. In case of any archaeologically potential asset would be discovered, relevant instructions about the sensitivity of the site will be shared with all construction teams a few days before the construction activities. The construction activities will be conducted with appropriate equipment and | IFC PS8<br><br>National Legislation | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Cultural Heritage Management Plan (including Chance Find Procedure) |

[1] The Project Company has already informed the relevant museum directorates of the findings of the studies. Preliminary discussions have been held with the Museum Directorate, and the decision-making process is ongoing. Any mitigation measures for sites which will be impacted is still to be determined subject to the ongoing consultation. Any updates on this subject will be reflected in this ESMP.

[2] Further surveys and baseline information gathering is ongoing. The ESMP and CHMP will be updated in accordance with the results of the ongoing studies.

| Parameter/ Aspect | Mitigation Measures | Requirement | Responsibility | Frequency/Timing | Management Plan detailing Monitoring Requirements |
|---|---|---|---|---|---|
| | methods. The appropriate equipment will be identified together with the directorate of the museum and the construction teams.<br>• Archaeological areas will be notified to the relevant museum directorates immediately.<br>• In the pre-construction period, meetings will be held with the mukhtars, dates of the activities, rituals etc. for local days or longer activity periods which will be planned to be held in the region should be learned through meetings with the mukhtars and local people. Community will be prevented from being affected by the construction in possible customary practices that can be experienced locally.<br>• Mobility of the people and vehicles during the activities planned to be held in the region will not be prevented,<br>• Transit routes will be arranged for uninterrupted access to areas regularly visited by the public,<br>• Contractors and subcontractors will be trained on the Code of Conduct, including their approach to relations with local communities, during the employment phase and at regular intervals throughout the Project.<br>• Information will be provided to contractors and subcontractors on any site-specific sensitivity/issue (e.g., festival locations, dates, events, etc.) regarding intangible cultural heritage.<br>• During the construction phase of the Project and road rehabilitation works, on-site archaeological monitoring and vibration monitoring will be conducted in order not to damage cultural heritage sites.<br>• In terms of blasting activities, vibration impact will be expected for the structures close to the 68+000 Quarry and Dereköy Quarry. Based on that, blasting patterns will be optimised and residual vibration impacts on the closest structures resulting from the blasting activities will be in line with the regulatory limit values. The details of the optimisation calculations are given in the Chapter 7.1.10 of the ESIA Report.<br>• Construction activities will have a vibration impact on cultural heritage findings of HRM-7, HRM-18, HRM-19, HRM-21, HRM-23, HRM-30, HRM-38, HRM-39 and HRM-40. Based on that, consultation with the Museum Directorate will be carried out for these locations and measures to be identified accordingly will be taken prior to any construction activity at these areas. | | | | |
| Change Finds | • In case of any chance find is encountered during the construction activities, further steps should be taken in accordance with the plans and procedures and the relevant bodies, and the Directorate of the Museum should be notified immediately. In case of any archaeologically potential asset would be discovered, relevant instructions about the sensitivity of the site should be shared with all construction teams a few days before the construction activities. The construction activities will be conducted with appropriate equipment and methods. The appropriate equipment will be identified together with the directorate of the museum and the construction teams.<br>• Archaeological areas will be notified to the relevant museum directorates immediately. | IFC PS8<br><br>National Legislation | EPC Contractor &<br><br>Project Company (joint responsibility) | Before construction works initiation,<br><br>Construction Phase | Cultural Heritage Management Plan (including Chance Find Procedure) |

# Annex D Example of a Change Screening Matrix

Example of a Change Screening Matrix - for potentially significant Changes (subject to revision by ÇOK A.Ş. and to be integrated as appropriate into the overall Change/NOV procedures of ÇOK A.Ş. for the Project)

| **PROJECT: E&S-TOPICS *SCREENING MATRIX*** | | |
|---|---|---|
| **Date of initial Matrix Preparation:** DD/month/YEAR | | |
| **Reference:** (as per ÇOK A.Ş. nomenclature) | | |
| **Name of ÇOK A.Ş. responsible person: e.g. E&S Manager XX** | | |
| **Summary of Proposed Change (Attach details as appropriate):**<br><br>INSERT Short-Name of Change/NOV *(Example - reconfiguration of Service Area Layout at KM xx)*<br>GIVE SHORT DESCRIPTION of proposed Change/NOV: Example: Contractor proposes to<br><br>…See drawing No.s. …….. (attached) | | |
| **Appraisal criterion** | **Appraisal of Change implication/potential measures to avoid/minimise the impacts** | **Resulting Significant change* (Y/N)** |
| a) Compliance with Env and Social Standards: | | |
| Environmental issues:<br>• air and noise<br>• water and soils<br>• biodiversity<br>• landscape | | |
| Social issues:<br>• land use and expropriation<br>• community disruption<br>• socio-economic impact | | |
| b) Compliance with Health and safety aspects | | |
| c) Compliance with Legal and permitting issues | | |
| d) Land-take impacts (see also Social Impacts above) | | |

| | | |
|---|---|---|
| e) cultural heritage/archaeology | | |
| f) Other relevant factors | | |

* material issues eg defined as potential significant E&S impacts that cannot be readily quantified or mitigated and/or have material, scheduling, reputational or other impacts

**Summary and Conclusions by ÇOK A.Ş. :**

**Further Change Review is warranted for this proposed Change? Yes___ No____**

# Annex E ENVIRONMENTAL AND SOCIAL MONITORING REQUIREMENTS

**Table E-1 Water Quality, Hydrology and Hydrogeology**

| Subject | Monitoring Requirement | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Hydrology and Surface Water Quality | *Construction Phase:*<br>• Surface water monitoring in terms of both quality and quantity at river crossings for low flow and high flow conditions (seasonal) in accordance with the Regulation on Surface Water Quality. The sampling and testing will be performed by an independent company or an accredited laboratory by the Ministry of Environment, Urbanization and Climate Change (MoEUCC) of Türkiye.<br>• Assessment of surface water runoff and flooding conditions after heavy rainfall events for efficiency of water conveyance systems.<br>• Routine site inspections for road construction and dust suppression activities and spill-response measures.<br>• Monitoring of trainings on spill response, use of containment and clean-up material for the workers (including the subcontractors' personnel).<br>*Operation Phase:*<br>• Surface water monitoring in terms of both quality and quantity at river crossings for low flow and high flow conditions (seasonal) in accordance with the Regulation on Surface Water Quality. The sampling and testing will be performed by an independent company or an accredited laboratory by the Ministry of Environment, Urbanization and Climate Change (MoEUCC) of Türkiye. | IFC PS3<br>National Legislation | EPC Contractor | *Construction Phase:*<br>• Surface Water Analyses Reports<br>(Dissolved oxygen, pH, TSS/turbidity, oil and grease, coliform, COD, BOD)<br>• Non-compliance Records<br>• Training Records<br>*Operation Phase:*<br>• Surface Water Analyses Reports<br>(metals (lead, zinc, copper, cadmium, chromium, and nickel); particulate matter; de-icing salts and their substitutes from roads; nutrients and herbicides used for management of vegetation in the right-of-way; contaminants of ecological concern (pesticides, sediment load and contaminants)) | • At least 2 seasons during construction phase.<br>• The testing frequency will be selected based on the risk assessment of the downgradient receptor sensitivity (e.g. ecological and/or water resources) for the operation phase. | • Zero number of non-compliant analysis results in accordance with the Regulation on Surface Water Quality.<br>• Zero number of non-compliances regarding dust suppression and spill-response<br>• All spill-response trainings performed in defined timeframes | Environmental Management Plan |
| Wastewater Management | Performing wastewater quality analysis in accordance with the Water Pollution Control Regulation in:<br>• Domestic wastewater Treatment Plants (Table 21.1 and IFC EHS General Guidelines), oil water separators at construction Camps (Table 18) and project site areas during construction phase;<br>• Wastewater generated during concrete batch plant operations and washing of cement trucks;<br>• Domestic wastewater Treatment Plants, oil water separators at resting and maintenance areas and repair activities during operation phase. | IFC PS3<br>IFC EHS General Guidelines<br>National Legislation | EPC Contractor | *Construction Phase:*<br>• Domestic Wastewater Analyses Reports<br>(BOD, COD, TSS, pH, Total nitrogen, Total phosphorus)<br>• Analysis Reports for Oil-Water Separator<br>(Oil and grease, NH4-N, CN, Total Chromium, Fish bioessay, pH) | Based on permitting requirements. | • For domestic wastewater treatment plants; Zero number of non-compliant analysis results in accordance with Table 21.1 of Water Pollution Control Regulation and IFC EHS General Guidelines.<br>• For oil-water separator; Zero | Environmental Management Plan |

| Subject | Monitoring Requirement | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | | | | • Analysis Reports for Batch Plant and related washing activities<br>(pH, temperature)<br>***Operation Phase:***<br>• Domestic Wastewater Analyses Reports<br>(BOD, COD, TSS, pH, Total nitrogen, Total phosphorus)<br>• Analysis Reports for Oil-Water Separator<br>(Oil and grease, NH4-N, CN, Total Chromium, Fish bioessay, pH) | | number of non-compliant analysis results in accordance with Table 18 of Water Pollution Control Regulation. | |
| Hydrogeology and Groundwater Quality | • The monitoring of groundwater resources will be based on guidelines developed following hydrogeological investigations. The guideline will be based on the Guidance on Groundwater Monitoring, Common Implementation Strategy for the Water Framework Directive (2000/60/EC) and will include the following items:<br>○ Identification of existing extraction wells (irrigation, domestic and public use) within the zone of influence,<br>○ Periodic monitoring of groundwater quantity and quality during the construction period (if necessary),<br>○ Periodic monitoring of groundwater discharge locations (stream or lake monitoring) and the operation period (if necessary),<br>○ Periodic monitoring of groundwater levels to assess seasonal variability (if necessary).<br>• Design checks, to ensure the measures listed above are in place (like concrete pavement in storage areas, collection pond underneath etc.) and, will be undertaken.<br>• Monitoring of trainings on spill response, use of containment and clean-up material for the workers (including the subcontractors' personnel).<br>• Routine site inspections for spill-response measures.<br>• Routine maintenance programme and maintenance records for all vehicles and machinery/equipment. | IFC PS3<br><br>National Legislation | EPC Contractor | • Groundwater Analyses Reports<br>• Accident Reports<br>• Non-compliance Records<br>• Training Records<br>• Vehicle/Machinery Maintenance Records | • At least 2 seasons during construction phase.<br>• Seasonally during operation phase. | • Zero number of non-compliant analyses results<br>• Zero number of environmental spillage accidents<br>• Zero number of non-compliances regarding spill-response<br>• All spill-response trainings performed in defined timeframes<br>• All routine maintenance activities performed in defined timeframes | Environmental Management Plan |

**Table E-2 Land Use, Soil and Geology**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Geohazard and Seismology | • Routine site inspections to ensure that the planned construction site boundaries are not expanded.<br>• Routine design inspections to ensure structures are constructed according to national and international design standards requiring specific structural characteristics related to slopes of cuts and fills, footing sizes of viaducts and many other considerations. | National Legislation<br><br>GIIP | EPC Contractor | • Site Inspection Records<br>• Non-compliance Records | Periodically during construction phase | • Zero number of non-compliances in regard with site and design inspections | Quarries and Associated Facilities Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan<br><br>Soil and Topsoil Management Plan |
| Soil and Subsoil | • Pre-construction surveys before any site setup.<br>• Routine site inspections to ensure that the planned construction site boundaries are not expanded.<br>• Routine site inspections to monitor spill-response measures.<br>• Routine maintenance programme for all vehicles and machinery/equipment.<br>• Routine visual inspections at the topsoil storage areas to ensure the requirements of the Regulation on Excavation, Construction and Demolition Wastes are followed.<br>• Routine site and routine visual inspections for the waste storage areas and hazardous material storage areas to identify any possible leakages.<br>• Soil quality analyses to be performed if any complaint received from local community and/or authorities, and the result will be compared with the baseline measurement conducted in the scope of ESIA Report.<br>• Soil quality analyses will be conducted at the sites designated for leasing to petroleum retailers at Motorway Service Areas prior to finalizing lease agreements.<br>• If there is a fuel station at the Operation and Maintenance Centres (OMCs) to be handed over to the O&M Subcontractor, soil analysis to be performed prior to delivery. | IFC PS3<br><br>National Legislation<br><br>GIIP | EPC Contractor | • Site Inspection Records<br>• Non-compliance Records<br>• Accident Reports<br>• Soil Quality Analyses Reports<br>• External Grievance Records<br>• Vehicle/Machinery Maintenance Records | Periodically during construction phase | • Zero number of non-compliances in regard with site inspections<br>• Zero number of non-compliant analyses results<br>• Zero number of environmental spillage accidents<br>• Zero number of non-compliant analyses results<br>• Zero number of complaints regarding soil pollution due to the Project activities<br>• All routine maintenance activities performed in defined timeframes | Environmental Management Plan<br><br>Quarries and Associated Facilities Management Plan<br><br>Soil Erosion, Reinstatement and Landscape Management Plan<br><br>Soil and Topsoil Management Plan |

**Table E-3 Air Quality**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Air Quality | • Air quality monitoring for dust emissions at the baseline measurement locations close to the active construction sites and active associated facilities.<br>• Pre-construction air quality monitoring for PM10 and PM2.5 parameters to improve the baseline data and to account for seasonal variations.<br>• Monitoring of exhaust emissions from construction and transportation vehicles in accordance with the requirements of the Regulation on Control of Exhaust Gas Emission both in construction and operation periods. | IFC PS3<br><br>National Legislation<br><br>GIIP | EPC Contractor (for construction)<br><br>O&M Contractor (for operation) | • Air Quality Measurement Reports<br>• Exhaust Emission Measurement Reports | • Periodically during construction and operation phases<br>• Monthly for 3 months prior to initiation of construction phase (for PM10 and PM2.5) | • Zero number of non-compliant measurement results<br>• Exhaust emission measurements performed in planned timeframes | Environmental Management Plan |
| Climate Change and Greenhouse Gas (GHG) Emissions | Quantify the resource consumption and specifications on a periodic (i.e. monthly) basis by appropriate methods; record and aggregate data on the consumption of the following resources:<br><br>• Concrete Plants, Precast Plants, Asphalt Plants and Mechanical Plants – Diesel Oil (construction);<br>• Generators - Diesel Oil (construction);<br>• Vehicles - Diesel Oil (construction and operation);<br>• Explosives (construction); and<br>• Electricity (construction and operation). | GHG Protocol<br><br>IPCC | EPC Contractor (for construction)<br><br>O&M Contractor (for operation) | Amounts consumed<br><br>• [L]<br>• [L]<br>• [L]<br>• [kg]<br>• [MWh] | Monthly | All records are kept. | Environmental Management Plan |
| | Quantify the net calorific value and density of consumed resources and specifications on a periodic (i.e. monthly) basis by appropriate methods; record and aggregate data on consumption of the following resources:<br><br>• Concrete Plants, Precast Plants, Asphalt Plants and Mechanical Plants – Diesel Oil (construction);<br>• Generators - Diesel Oil (construction);<br>• Vehicles - Diesel Oil (construction and operation); | GHG Protocol<br><br>IPCC | EPC Contractor (for construction)<br><br>O&M Contractor (for operation) | The example units are provided below, other similar related units are acceptable.<br><br>• Net calorific value: TJ/Gg<br>• Density: kg/lt | Monthly | All records are kept. | Environmental Management Plan |
| | GHG emission levels (combined Scope 1 and Scope 2 Emissions, and, if appropriate, the GHG efficiency ratio) from the facilities owned or controlled within the physical project boundary, as well as indirect emissions associated with the off-site production of energy used by the Project | IFC PS3 | Project Company | GHG Emission Reports | Annual | Compliance with international standards | Environmental Management Plan |

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | will be quantified and reported publicly on annual basis during the construction phase. | | | | | | |
| | • Number of employees that have completed the climate, resource and energy efficiency awareness trainings will be checked.<br>• Maintenance records of machinery and equipment will be checked for regular maintenance periods.<br>• Prior to any activity on site, final Project footprint will be determined.<br>• Records on waste types and corresponding amounts will be recorded.<br>• Number of non-compliances with GHG emissions management measures will be recorded | GIIP | EPC Contractor | • Training records<br>• Maintenance records<br>• Project footprint<br>• Waste records<br>• Non-compliance Records | • Semi-annually<br>• Monthly<br>• Prior to any activity on site<br>• Monthly<br>• Continuously | • All relevant trainings performed in defined timeframes<br>• All routine maintenance activities performed in defined timeframes<br>• Decrease in land use/disruption<br>• Decrease in amount of waste generated and continuous improvement<br>• Zero external complaints regarding GHG emissions | Environmental Management Plan |

**Table E-4 Noise and Vibration**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target/Acceptance Criteria / KPI | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| **Noise** | • During the construction and operation phases of the Project, a monitoring programme of noise at the selected baseline noise measurement[3] locations and at the receptors where the defined noise limit values are exceeded, will be in place. The monitoring campaign will | IFC EHS General Guidelines<br><br>National Legislation | EPC Contractor (for construction) | • Noise Measurement Reports<br>• External Grievance Records<br>• Noise Measurement Reports | Periodically and as required during construction and operation phases | • Zero number of non-compliant measurement results[4]<br>• Zero external complaints regarding | Environmental Management Plan |

[3] When determining monitoring points, locations with active construction work, associated facilities in active operation and proximity to residential areas will be taken into consideration.

[4] IFC Noise Standards for industrial; commercial areas are 70 dBA for day and night, and for residential; institutional; educational areas are 55 dBA for day and 45 dBA for night.

Turkish Noise Limit Values for industrial facilities, transportation sources are 65 dBA, 60 dBA, and 55 dBA for day, evening and night, respectively.

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target/Acceptance Criteria / KPI | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | be conducted by 48 hours continuous noise measurements at the locations on quarterly basis.<br>• During the construction and operation phases of the Project, in case of any noise related grievance, noise measurement campaign will be carried out immediately at the area where noise related grievance is received.<br>• If monitoring results indicate that noise levels are above the defined limits, then noise abatement measures will be implemented (e.g. noise barriers, walls or earth berms along motorway route or next to receptor buildings, soundproofing, relocation of the sensitive receptor, etc). | | O&M Contractor (for operation) | | | noise during operation phase<br>• Zero number of non-compliant measurement results | |
| **Vibration** | • During the blasting activities, vibration measurement studies will be performed for frequency ranges on the closest receptors or vibration sensitive structures to the blasting locations. Surveys of existing structure and integrity at structures close to the blasting sites will be undertaken both prior to any blasting activity and monthly during the construction phase.<br>• During the construction and operation phases of the Project, in case of any vibration related grievance, vibration measurement campaign will be carried out immediately at the area where vibration related grievance is received.<br>• Performing pre- and post-condition surveys of buildings potentially affected by vibration from blasting.<br>• Vibration monitoring will be performed during trial blasts where there are potentially affected receptors. | IFC EHS General Guidelines<br><br>National Legislation | EPC Contractor (for construction)<br><br>O&M Contractor (for operation) | • Vibration Measurement Reports<br>• External Grievance Records<br>• Survey Reports<br>• Vibration Monitoring Reports | • During blasting activities at construction phase<br>• Continuous during construction and operation<br>• Prior to and after the blasting activities<br>• During trial blasts at construction phase | • Zero number of non-compliant measurement results[5]<br>• Zero external complaints regarding vibration during operation phase<br>• Surveys are performed for all required potentially affected buildings<br>• No vibration limit exceedances | Environmental Management Plan |

**Table E-5 Landscape and Visual**

[5] Turkish Vibration Limit Values for continuous vibration in residential areas is 5 mm/s, and for historical and natural structures is 2 mm/s.

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Landscape and Visual | Periodically monitoring the visual and aesthetic condition of the Project facilities. Monitoring will generally be conducted during construction, routine operations and maintenance of the Project facilities. Qualified staff will visually assess the aesthetic condition of these facilities using accepted visual and aesthetic standards and take appropriate actions in consultation with the contractors or upper management if needed. | GIIP | Project Company | Site Inspection Records | Continuous during construction and operation phases | Zero number of non-compliances regarding landscape and visual | Soil Erosion, Reinstatement and Landscape Management Plan |
| Grievance Mechanism | Landscape and visual related grievances will be recorded and tracked via the Grievance Mechanism, within the Project's Stakeholder Engagement Plan, continuously in construction and operation phases. | IFC PS5<br><br>GIIP | Project Company | External Grievance Records | Continuous during construction and operation phases | Zero external complaints regarding landscape and visual conditions | Stakeholder Engagement Plan |

**Table E-6 Community Health, Safety and Security**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Construction Phase Traffic Management | • Keeping records of the number of traffic-related incidents involving contractor workers, subcontractor workers and external persons.<br>• Investigation of the incidents and accidents and use of lesson's learned to improve traffic mitigations.<br>• Keeping records of the number of total road closures caused by Project activities,<br>• Monitoring of the licenses and medical surveillance of the operators to ensure that they are up to date.<br>• Keeping a record of and tracking Training Records of Drivers<br>• Monitoring condition of the roads to ensure safe driving.<br>• Controlling maintenance records of the vehicles to ensure regular maintenance activities take place.<br>• Regularly checking construction traffic routes for impacts on vulnerable areas like schools or hospitals,<br>• Weather forecast monitoring to ensure safety of the operators.<br>• Closely monitoring the compliance with speed limits to protect the health and safety of both public and employees. | IFC PS4<br><br>GIIP | EPC Contractor | • Accident Data and Reports<br>• Road Closure Data<br>• Operator/Driver Documentation<br>• Training Records<br>• External Grievance Records | Continuous during construction phase | • Zero traffic accidents related to Project<br>• Minimization of the number of road closures due to Project<br>• All operator licences are up-to-date<br>• All medical surveillance of operators performed in planned timeframes<br>• All drivers/operators are provided with traffic and road safety requirements<br>• Zero number of non-compliances due to traffic management | Traffic Management Plan |

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | • Following the comments and/or complaints received via grievance mechanism to improve traffic mitigations and to prevent air quality, noise and vibration impacts, if any. | | | | | • Zero external complaints regarding Project-related traffic<br>• All routine maintenance activities performed in defined timeframes | |
| Operation Phase Traffic Management | • Keeping records of the number of traffic-related incidents involving contractor workers, subcontractor workers and external persons.<br>• Monitoring the implementation of safety measures such as signage, barriers, and reflective markers,<br>• Inspecting pedestrian crossings, overpasses, and underpasses for safety and maintenance needs,<br>• Conducting routine checks on visibility, lighting, and structural integrity, particularly after severe weather events,<br>• Keeping records of the number of grievances received and the percentage of grievances resolved positively. | IFC PS4<br><br>GIIP | O&M Contractor | • Accident Data and Reports<br>• Site Inspection Records<br>• External Grievance Records | Continuous during operation phase | • Zero traffic accidents related to Project<br>• Zero number of non-compliances due to traffic management<br>• Zero external complaints regarding Project-related traffic<br>• All routine maintenance activities performed in defined timeframes | Traffic Management Plan |
| Community Health and Safety,<br><br>Emergency Response | • Monitoring health screenings and hygiene facilities to prevent disease transmission,<br>• Records of communicable diseases,<br>• Monitoring hazardous materials transportation to ensure compliance with legal and safety standards,<br>• Tracking emergency response actions related to spills or accidents, ensuring proper containment and communication with local communities,<br>• Training records on community health and safety. | IFC PS4<br><br>National Legislation<br><br>GIIP | EPC Contractor (for construction)<br><br>O&M Contractor (for operation) | • Health records of Project personnel (including subcontractors)<br>• Hazardous materials transportation records<br>• Emergency Response Records (e.g., drill and training records)<br>• Training Records | Periodically during construction and operation phases | • All personnel is undergone periodic health screening in defined timeframes<br>• All records kept regarding communicable diseases<br>• All records kept regarding transportation of hazardous materials<br>• All drills and trainings performed regarding community health and safety | Community Health, Safety and Security Procedure (CHSSP)<br><br>Emergency Response Plan |

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Security | • Monitoring security patrols, preventing unauthorized access, and addressing community security concerns,<br>• Tracking and reporting any use of force by security personnel, ensuring adherence to human rights principles,<br>• Monitoring of licences and trainings of the security personnel. | IFC PS4<br><br>GIIP | EPC Contractor &<br><br>Project Company 8jointly? | • External and Internal Grievance Records<br>• Training Records | Periodically during construction phase | • Zero number of external and internal complaints due to security personnel<br>• All security personnel is equiped with up-to-date licence<br>• All security personnel are provided with security trainings | Community Health, Safety and Security Procedure (CHSSP)<br><br>Stakeholder Engagement Plan (SEP)<br><br>Employment Policy Document (EPD)<br><br>Security Management Plan |

**Table E-7 Social Impact**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Population and Demography | • Periodic assessments to evaluate the condition and adequacy of Project infrastructure, ensuring that they meet the needs of the growing population.<br>• Evaluation of the effectiveness of cultural sensitivity training programs through feedback surveys.<br>• The operation of grievance mechanisms will be reviewed regularly to assess their accessibility, transparency, and responsiveness in addressing community concerns and complaints related to the Project impacts.<br>• Stakeholder Engagement and consultation registers and records by the Stakeholder Engagement Plan will be produced for the Project and monitored.<br>• Percentages of the local employees (which will be a performance indicator for ESMS to be implemented for the Project), (target will me 50% at minimum) will be monitored. | IFC PS1<br><br>GIIP | Project Company | • Feedback Survey Results<br>• Grievance Mechanism (GRM) documentation<br>• Stakeholder Engagement and Consultation Registers and Records<br>• Employment Data | Periodically during construction and operation phases | • Positive improvement on the feedback survey results<br>• Zero number of external complaints related with the Project<br>• Stakeholder engagement activities performed within the planned timeframes<br>• All employment data are kept and secured | Stakeholder Engagement Plan |
| Economy and Employment | • Regular monitoring of economic indicators and employment statistics to assess the Project's impacts on the local economy and employment rates. | IFC PS1<br><br>IFC PS2 | Project Company & | • Employment Data<br>• Training Records | Periodically during construction and operation phases | • All employment data are kept and secured | Employment Policy Document |

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | • Assessment of training plans to determine their effectiveness in meeting Project objectives and improving worker skills.<br>• Documentation and tracking of grievances received, along with details of the issue, actions taken, and resolution status. | GIIP | O&M Contractor (jointly) | • Internal Grievance Records | | • All related trainings are performed within planned timeframes<br>• Zero number of internal complaints regarding employment conditions | Employee Code of Conduct |
| Land Use and Land-based Livelihoods | • Overall spending on land acquisition and on a per household basis,<br>• Number of employees and consultants involved to the process,<br>• Total number of private and governmental lands,<br>• Total numbers of untitled land,<br>• Total number of vulnerable people,<br>• Number of agreed and non-agreed land plots,<br>• Number and type of grievances, including legal actions arising from expropriation,<br>• Number of vulnerable persons/households assisted,<br>• Number of people who were able to restore their livelihoods defined in RAP according to the eligibility criteria,<br>• Conducting the monitoring activities as defined in RAP and tracking KPIs,<br>• Verification of the number of forest land restrictions caused by Project activities and verification of the number of grievances received and percentage of grievances resolved positively. | IFC PS5<br><br>National Legislation | Project Company | • Land Acquisition, Land Use and Project-Affected People (PAP) Data<br>• External Grievance Records | Before construction works initiation,<br><br>During construction phase | • All land acquisition, land use, and PAP data are kept<br>• Zero number of external complaints regarding land acquisition processes | Resettlement Framework<br><br>Resettlement Action Plan- including Livelihood Restoration Plan |

**Table E-8 Cultural Heritage**

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Protection of Cultural Heritage Assets | On-site archaeological monitoring and vibration monitoring (when necessary) during the construction phase and road rehabilitation works in order not to damage the identified cultural heritages. | IFC PS8<br><br>National Legislation | Project Company | • Site Inspection Records<br>• Vibration Analyses Reports | Periodically during construction phase | • All identified cultural heritage assets within the Project site are protected | Cultural Heritage Management Plan (including Chance Find Procedure) |

| Subject | Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| | | | | | | • Zero number of non-compliant analyses results | |

**Table E-9 Biodiversity[6]**

| Subject | Management / Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
|---|---|---|---|---|---|---|---|
| Construction Phase Biodiversity Management | • Comprehensive pre-construction habitat verification surveys to identify and confirm all areas of natural and critical habitat that may be impacted, taking into consideration the seasonality for the collection of detailed information on biodiversity. Additional pre-construction field survey specifically targeting birds and including survey locations within the footprint of Danamandıra Limestone Quarry, which falls inside Terkos Basin IBA.<br>• Monthly monitoring of indirect and direct inadvertent impacts on natural habitats and river crossing present around the construction site in order to assess eventual footprint creep outside designated areas;<br>• Monitoring of accidents involving wildlife or the observation of live animal or carcasses along the access road or on the construction site;<br>• Monitoring of the presence of signs of erosion or stagnant water accumulation, waste or hazardous substances spill within and around the construction sites at least every three months during construction;<br>• Monitoring of presence and spreading of invasive flora species within and around the construction sites at least twice a year during the vegetative season by an expert botanist, if necessary, control campaigns will be put in place in order to avoid the spreading of the invasive species. | IFC PS6<br><br>GIIP | Project Company | • Pre-construction Survey Reports<br>• Monthly Monitoring Reports<br>• Accident Records<br>• Quarterly and Biannual Monitoring Reports | • Before construction works initiation<br>• Monthly<br>• Continuous<br>• Quarterly<br>• Biannually | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Management Plan | Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP) |

[6] Additional mitigation measures / commitments will be included in the ESMP and this table when the final BMP and BOMP of the Project are completed.

| Subject | Management / Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
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| | *Terrestrial Flora Species triggering CH*<br><br>• Additional critical habitat verification surveys: Additional habitat verification field surveys will be carried out within all the areas identified as critical habitats for triggering flora species in order to have validation of the critical habitats and to gather primary data on the quality of critical habitats (e.g. conservation level, degradation factors, degradation levels). The time planning for these surveys will also take into consideration the seasonality for the collection of detailed information on biodiversity. For this reason, April-June would be the best period for observing flora species during the flowering period.<br>• Flora Salvaging and Direct Translocation: Translocation sites identified for species shall be monitored periodically for any sign of stress or disturbance. During the first two years after translocation monitoring shall occur monthly during the vegetative season. After the first two years monitoring shall occur every three months during the vegetative season (unless particular issues are recorded during previous monitoring).<br>• Flora On-site Conservation: On-site Conservation Areas identified for flora species shall be monitored periodically and any signs of disturbance will be noted (e.g. trampling, dust deposition, soil erosion, presence of stagnant water). During construction monitoring will occur monthly.<br>• Seed collection : The number of seeds collected, and their viability will be tested in order to assess the need of additional collection campaigns. | IFC PS6 | Project Company | Monitoring Reports | Prior to commencing of construction as defined in monitoring actions | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Action Plan | Biodiversity Action Plan (BAP) |
| | *Terrestrial fauna Species triggering CH*<br><br>• Additional critical habitat verification surveys: Additional habitat verification field surveys will be carried out within all the areas identified as critical habitats for triggering fauna species in order to have validation of the critical habitats and to gather primary data on the quality of critical habitats (e.g. conservation level, degradation factors, degradation levels). The time planning for these surveys will also take into consideration the seasonality for the collection of detailed information on biodiversity. For this reason, April-June would be the best period for observing fauna species during full activity period. | IFC PS6 | Project Company | Monitoring Reports | During commencing of construction as defined in monitoring actions | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Action Plan | Biodiversity Action Plan (BAP) |

| Subject | Management / Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
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| | • Salvaging and Translocation: Translocation sites identified for Spermophilus citellus shall be monitored periodically for any sign of stress or disturbance. During the first two years after translocation monitoring shall occur monthly during the species activity season. After the first two years monitoring will occur once a year during the activity season of the species (unless particular issues are recorded during previous monitoring). It would be important to check the status of the suitable habitat for the species at each site identified for the translocation. | | | | | | |
| Operation Phase Biodiversity Management | • Record keeping of the accidents involving wildlife or the observation of live animal or carcasses along motorway and/or on-board for at least 3 years of operation.<br>• Monitoring of presence of signs of erosion or stagnant water accumulation, waste or hazardous substances spill on the motorway route in correspondence of natural habitats and river crossings and in the associated facilities rehabilitating areas at least twice a year for the next 3 years.<br>Monitoring of presence and spreading of invasive flora species along the motorway verge in correspondence of natural habitats and river crossings at least twice a year for the next 3 years during the vegetative season by an expert botanist, if necessary, control campaign will be put in place in order to avoid the spreading of the invasive species.<br>Monitoring of the rehabilitation of temporary facilitates such as quarries, borrow sites, storage area for excess excavated material and blasting areas at least twice a year for the next 3 years during the vegetative season (March to October) in order to ensure the correct re-vegetation of the area and intervene in a timely manner in case of signs of vegetation stress or erosion. | IFC PS6 | Project Company | • Accident Records<br>• Biannual Monitoring Reports | • Continuous for the first three years of operation phase<br>• Biannually for the first three years of operation phase | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Management Plan | Biodiversity Action Plan (BAP)<br><br>Biodiversity Management Plan (BMP) |
| | *Terrestrial Flora Species triggering CH*<br><br>• Flora Salvaging and Direct Translocation: Translocation sites identified for flora species shall be monitored periodically for any sign of stress or disturbance. During the first two years after translocation monitoring shall occur monthly during the vegetative season. After the first two years monitoring shall occur every three months | IFC PS6 | Project Company | Monitoring Reports | During operation as defined in monitoring actions | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Action Plan | Biodiversity Action Plan (BAP) |

| Subject | Management / Monitoring Action | Requirement | Responsibility | Monitoring Tool | Frequency/Timing | Target | Management Plan detailing monitoring requirements |
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| | during the vegetative season (unless particular issues are recorded during previous monitoring).<br>• Flora On-site Conservation: On-site Conservation Areas identified for flora species shall be monitored periodically and any signs of disturbance will be noted (e.g. trampling, dust deposition, soil erosion, presence of stagnant water). Twice during the vegetative season (from April to September) for the first 3 years of operation (unless particular issues are recorded during previous monitoring).<br>• Seed collection: The number of seeds collected and their viability shall be tested in order to assess the need of additional collection campaigns. | | | | | | |
| | *Fauna species triggering CH*<br><br>• Salvaging and Translocation: Translocation sites identified for Spermophilus citellus will be monitored periodically for any sign of stress or disturbance. During the first two years after translocation monitoring shall occur monthly during the species activity season. After the first two years monitoring shall occur once a year during the activity season of the species (unless particular issues are recorded during previous monitoring). | IFC PS6 | Project Company<br><br>O&M Contractor | Monitoring Reports | During operation as defined in monitoring actions | Monitoring actions are performed in accordance with the defined timeframes and as defined in the Biodiversity Action Plan | Biodiversity Action Plan (BAP) |