

**REPUBLIC OF TÜRKİYE**

**MINISTRY OF AGRICULTURE AND FORESTRY**

**DIRECTORATE GENERAL OF EUROPEAN UNION AND FOREIGN  
RELATIONS**



**AGRICULTURE SECTOR RECOVERY IN TÜRKİYE'S EARTHQUAKE-**

**AFFECTED PROVINCES PROJECT**

**(P181428)**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

**September 2024**

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## List of Abbreviations

ABDGM	: Directorate General of European Union and Foreign Relations
ACM	: Asbestos Containing Materials
AFAD	: Emergency Management Presidency
BMP	: Biodiversity Management Plan
BÜGEM	: Directorate General of Plant Production
CoC	: Code of Conduct
CHS	: Community Health and Safety
C-ESMP	: Contractor Environmental and Social Management Plan
E&S	: Environmental and Social
EHSGs	: World Bank Group Environmental, Health and Safety Guidelines
EIA	: Environmental Impact Assessment
ESA	: Environmental and Social Assessment
ESCP	: Environmental and Social Commitment Plan
ESF	: Environmental and Social Framework
ESHS	: Environmental, Social, Health and Safety
ESMF	: Environmental and Social Management Framework
ESMP	: Environmental and Social Management Plan
ESSs	: Environmental and Social Standards
GBV	: Gender-based violence
GD	: General Directorate
GHG	: Greenhouse Gas
GIIP	: Good International Industry Practice
GM	: Grievance Mechanism
GN	: Guidance Note
GPN	: Good Practice Note
GT	: Government of Türkiye
HAYGEM	: Directorate General of Livestock
IFC	: International Finance Corporation
IPM	: Integrated Pest Management
M&E	: Monitoring and Evaluation
MoAF	: Ministry of Agriculture and Forestry
MoEUCC	: Ministry of Environment, Urbanization and Climate Change
OHS	: Occupational Health and Safety
OP	: Operation Policy
PCBs	: Poly Chlorinated Biphenyls
PCU	: Project Coordination Unit
PM	: Particulate Matter
PMP	: Pest Management Plan
PPE	: Personal Protective Equipment
RP	: Resettlement Plan
RF	: Resettlement Framework

SEA : Sexual Exploitation and Abuse  
SEP : Stakeholder Engagement Plan  
SH : Sexual Harassment  
TORs : Terms of Reference  
TRGM : Directorate General of Agricultural Reform  
WWTP : Wastewater Treatment Plant

## Glossary

**Adaptive management** refers to the practice in which the implementation of mitigation and management measures are responsive to changing conditions and the results of project monitoring.

**Air pollution** refers to the release of air pollutants (often associated with the combustion of fossil fuels), such as nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), particulate matter (PM), as well as other contaminants including GHGs.

**Associated Facilities** refers to facilities or activities that are not funded as part of the project and are: (a) directly and significantly related to the project; and (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. For facilities or activities to be Associated Facilities, they must meet all three criteria.

**Biodiversity** is the variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems.

**Borrower** refers to the recipient of Investment Project Financing (IPF) and any other entity involved in the implementation of a project financed by IPF

**Chance Find Procedure.** A chance find is archaeological material encountered unexpectedly during project construction or operation. A chance find procedure is a procedure which will be followed if previously unknown cultural heritage is encountered during project activities. The chance finds procedure will set out how chance finds associated with the project will be managed.

**Community representatives** refer to village heads, community, local government representatives, civil society representatives, politicians or teachers.

**Consultant** refers to a variety of private entities, joint ventures, or individuals that provide services of an advisory or professional nature.

**Consulting services** cover a range of services that are of an advisory or professional nature and are provided by consultants. These Services typically involve providing expert or strategic advice.

**Core functions** of a project constitute those production and/or service processes essential for a specific project activity without which the project cannot continue.

**Critical habitat** is defined as areas with high biodiversity importance or value, including: (a) habitat of significant importance to Critically Endangered or Endangered species, as listed on the International Union for the Conservation of Nature (IUCN) Red List of threatened species or equivalent national approaches; (b) habitat of significant importance to endemic or restricted-range species; (c) habitat supporting globally or nationally significant concentrations of migratory or congregatory species; (d) highly threatened or unique system; and (e) ecological functions or characteristics that are needed to maintaining the viability of the biodiversity values described above in (a) to (d).

**Cultural heritage** is defined as resources with which people identify as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions.

**Cumulative impact** refers to the incremental impact of the project when added to impacts from other relevant past, present and reasonably foreseeable developments as well as unplanned but predictable activities enabled by the project that may occur later or at a different location. Cumulative impacts can result from individually minor but collectively significant activities taking place over a period of time.

**Cumulative Impact Assessment** refers to an instrument to consider cumulative impacts of the project in combination with impacts from other relevant past, present and reasonably foreseeable developments, as well as unplanned but predictable activities enabled by the project that may occur later or at a different location.

**Direct impact** refers to an impact which is caused by the project, and occurs contemporaneously in the location of the project.

**Disadvantaged or vulnerable** refers to those who may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits. Such an individual/group is also more likely to be excluded from/unable to participate fully in the mainstream consultation process and as such may require specific measures and/or assistance to do so. This will take into account considerations relating to age, including the elderly and minors, and including in circumstances where they may be separated from their family, the community or other individuals upon which they depend.

**Ecosystem services** are the benefits that people derive from ecosystems. Ecosystem services are organized into four types: (i) provisioning services, which are the products people obtain from ecosystems and which may include food, freshwater, timbers, fibers, medicinal plants; (ii) regulating services, which are the benefits people obtain from the regulation of ecosystem processes and which may include surface water purification, carbon storage and sequestration, climate regulation, protection from natural hazards; (iii) cultural services, which are the nonmaterial benefits people obtain from ecosystems and which may include natural areas that are sacred sites and areas of importance for recreations and aesthetic enjoyment; and (iv) supporting services, which are the natural processes that maintain the other services and which may include soil formation, nutrient cycling and primary production.

**Environmental, Health, and Safety Guidelines (EHSGs)** are technical reference documents with general and industry-specific statements of Good International Industry Practice. The EHSGs contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable cost.

**Emergency event** refers to an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons, including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning.

**Environmental and Social Assessment (ESA)** refers to a process of analysis and planning to ensure the environmental and social impacts and risks of a project are identified, avoided, minimized, reduced or mitigated throughout the project life-cycle.

**Environmental and Social Commitment Plan (ESCP)** refers to a summary document setting out the material measures and actions that are required for the project to achieve compliance with the Environmental and Social Standards over a specified timeframe in a manner satisfactory to the Bank. The ESCP forms part of the Legal Agreement.

**Environmental and Social Framework (ESF)** comprises: a Vision for Sustainable Development, which sets out the Bank's aspirations regarding environmental and social sustainability; the World Bank Environmental and Social Policy for Investment Project Financing, which sets out the mandatory requirements that apply to the Bank; and the Environmental and Social Standards, together with their annexes, which set out the mandatory requirements that apply to the Borrower and projects.



**Environmental and Social Management Framework (ESMF)** refers to an instrument that examines the risks and impacts when a project consists of a program and/or series of sub-projects, and those risks and impacts cannot be determined until the program or sub-project details have been identified. The ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts.

**Environmental and Social Management Plan (ESMP)** refers to an instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental and social impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures.

**Forced eviction** is defined as the permanent or temporary removal against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection, including all applicable procedures and principles in ESS5. The exercise of eminent domain, compulsory acquisition or similar powers by a Borrower will not be considered to be forced eviction providing it complies with the requirements of national law and the provisions of ESS5, and is conducted in a manner consistent with basic principles of due process (including provision of adequate advance notice, meaningful opportunities to lodge grievances and appeals, and avoidance of the use of unnecessary, disproportionate or excessive force).

**Good International Industry Practice (GIIP)** is defined as the exercise of professional skill, diligence, prudence, and foresight that would reasonably be expected from skilled and experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally or regionally. The outcome of such exercise should be that the project employs the most appropriate technologies in the project-specific circumstances.

**Habitat** is defined as a terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. Habitats vary in their sensitivity to impacts and in the various values society attributes to them.

**Harvesting of living natural resources**, such as fish and all other types of aquatic and terrestrial organisms and timber, refers to productive activities that include extraction of these resources from natural and modified ecosystems and habitats.

**Hazard or risk assessment** is defined as an instrument for identifying, analyzing, and controlling hazards associated with the presence of dangerous materials and conditions at a project site. World Bank requires a hazard or risk assessment for projects involving certain inflammable, explosive, reactive, and toxic materials when they are present in quantities above a specified threshold level.

**Historical pollution** is defined as pollution from past activities affecting land and water resources for which no party has assumed or been assigned responsibility to address and carry out the required remediation.

**Indirect impact** is defined as an impact which is caused by the project and is later in time or farther removed in distance than a direct impact, but is still reasonably foreseeable, and will not include induced impacts.

**Induced impacts** are indirect economic impacts that may be generated by a project, both positive and negative, that are not associated with the physical footprint of the project, and not a direct result of the project's physical impact/activities.

**Intangible cultural heritage** includes practices, representations, expressions, knowledge, skills - as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.

**Involuntary Resettlement.** Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, including those that lead to loss of income sources or other means of livelihood), or both. The term “involuntary resettlement” refers to these impacts. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.

**Land acquisition** refers to all methods of obtaining land for project purposes, which may include outright purchase, expropriation of property and acquisition of access rights, such as easements or rights of way. Land acquisition may also include: (a) acquisition of unoccupied or unutilized land whether or not the landholder relies upon such land for income or livelihood purposes; (b) repossession of public land that is used or occupied by individuals or households; and (c) project impacts that result in land being submerged or otherwise rendered unusable or inaccessible. “Land” includes anything growing on or permanently affixed to land, such as crops, buildings and other improvements, and appurtenant water bodies.

**Legal Agreement.** The legal agreement entered into between the Bank and the Borrower to provide Bank financing for the Borrower’s investment project.

**Like-for-like or better.** The principle of “like-for-like or better” means that in most cases biodiversity offsets should be designed to conserve the same biodiversity values that are being affected by the project (an “in kind” offset). In certain situations, however, areas of biodiversity to be affected by the project may be neither a national nor a local priority, and there may be other areas of biodiversity with like values that are a higher priority for conservation and sustainable use and under imminent threat or in need of protection or effective management.

**Livelihood** refers to the full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering.

**Meaningful consultation** refers to a two-way process, that: (a) Begins early in the project planning process to gather initial views on the project proposal and inform project design; (b) Encourages stakeholder feedback, particularly as a way of informing project design and engagement by stakeholders in the identification and mitigation of environmental and social risks and impacts; (c) Continues on an ongoing basis, as risks and impacts arise; (d) Is based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in a timeframe that enables meaningful consultations with stakeholders in a culturally appropriate format, in relevant local language(s) and is understandable to stakeholders; (e) Considers and responds to feedback; (f) Supports active and inclusive engagement with project-affected parties; (g) Is free of external manipulation, interference, coercion, discrimination, and intimidation; and (h) Is documented and disclosed by the Borrower.

**Migrant workers** are defined as workers who have migrated from one country to another or from one part of the country to another for purposes of employment.

**Mitigation hierarchy** is defined as a systematic and phased approach to addressing the risks and impacts of a project.

**Modified habitats** are areas that may contain a large proportion of plant and/or animal species of nonnative origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition. Modified habitats may include, for example, areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands.

**Movable cultural heritage** refers to such objects as: historic or rare books and manuscripts; paintings, drawings, sculptures, statuettes and carvings; modern or historic religious items; historic costumes, jewelry and textiles; fragments of monuments or historic buildings; archaeological material; and natural history collections such as shells, flora, or minerals.

**Natural features with cultural significance** refer to features imbued with cultural heritage significance. Examples include sacred hills, mountains, landscapes, streams, rivers, waterfalls, caves and rocks; sacred trees or plants, groves and forests; carvings or paintings on exposed rock faces or in caves; and paleontological deposits of early human, animal or fossilized remains. The significance of such heritage may be localized in small community groups or minority populations.

**Natural habitats** are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.

**Net gains** are defined as additional conservation outcomes that can be achieved for the biodiversity values for which the natural or critical habitat was designated.

**No net loss** is defined as the point at which project-related biodiversity losses are balanced by gains resulting from measures taken to avoid and minimize these impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale.

**Pollution** refers to both hazardous and non-hazardous chemical pollutants in the solid, liquid, or gaseous phases, and includes other components such as thermal discharge to water, emissions of short- and long-lived climate pollutants, nuisance odors, noise, vibration, radiation, electromagnetic energy, and the creation of potential visual impacts including light.

**Pollution management** is defined as measures designed to avoid or minimize emissions of pollutants, including short- and long-lived climate pollutants, given that measures which tend to encourage reduction in energy and raw material use, as well as emissions of local pollutants, also generally result in encouraging a reduction of emissions of short- and long-lived climate pollutants.

**Primary production of living natural resources** is defined as the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, and plantation forestry.

**Primary suppliers** are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project. Core functions of a project constitute those production and/or service processes essential for a specific project activity without which the project cannot continue.

**Procurement documents** refer to all Procurement Documents issued by the Borrower. It includes: General Procurement Notice (GPN), Specific Procurement Notice (SPN), Expression of Interest (EOI), Request for Expressions of Interest (REOI), prequalification document, initial selection document, request for bids document, request for proposal documents, forms of contracts and any addenda.

**Project:** Refers to Agriculture Sector Recovery in Türkiye's Earthquake-Affected Provinces Project

**Project Worker** refers to: (a) people employed or engaged directly by the Borrower (including the project proponent and the project implementing agencies) to work specifically in relation to the project (direct workers); (b) people employed or engaged through third parties to perform work related to core functions of the project, regardless of the location (contracted workers); (c) people employed or engaged by the Borrower's primary suppliers (primary supply workers); and (d) people employed or engaged in providing community labor (community workers). This includes full-time, part-time, temporary, seasonal and migrant workers.

**Replacement cost** is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement. Where functioning markets exist, replacement cost is the market value as established through independent and competent real estate valuation, plus transaction costs. Where functioning markets do not exist, replacement cost may be determined through alternative means, such as calculation of output value for land or productive assets, or the undepreciated value of replacement material and labor for construction of structures or other fixed assets, plus transaction costs. In all instances where physical displacement results in loss of shelter, replacement cost must at least be sufficient to enable purchase or construction of housing that meets acceptable minimum community standards of quality and safety. The valuation method for determining replacement cost should be documented and included in relevant resettlement planning documents. Transaction costs include administrative charges, registration or title fees, reasonable moving expenses, and any similar costs imposed on affected persons. To ensure compensation at replacement cost, planned compensation rates may require updating in project areas where inflation is high or the period of time between calculation of compensation rates and delivery of compensation is extensive.

**Restrictions on land use** refers to limitations or prohibitions on the use of agricultural, residential, commercial or other land that are directly introduced and put into effect as part of the project. These may include restrictions on access to legally designated parks and protected areas, restrictions on access to other common property resources, restrictions on land use within utility easements or safety zones.

**Security of tenure** refers to that resettled individuals or communities are resettled to a site that they can legally occupy, where they are protected from the risk of eviction and where the tenure rights provided to them are socially and culturally appropriate.

**Stakeholder** refers to individuals or groups who: (a) are affected or likely to be affected by the project (project-affected parties); and (b) may have an interest in the project (other interested parties). The stakeholders of a project will vary depending on the details of the project. They may include local communities, national and local authorities, neighboring projects, and nongovernmental organizations.

**Standard Procurement Documents (SPDs).** Procurement documents issued by the Bank to be used by Borrowers for IPF-financed projects.

**Tangible cultural heritage** refers to movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water.

**Technical feasibility** is based on whether proposed measures and actions can be implemented with commercially available skills, equipment, and materials, taking into consideration prevailing local factors such as climate, geography, demography, infrastructure, security, governance, capacity, and operational reliability.

**Universal access** refers to unimpeded access for people of all ages and abilities in different situations and under various circumstances.

## Executive Summary

This Environmental and Social Framework (ESMF) is developed to support the environmental and social (E&S) due diligence provisions for the activities financed by the World Bank (WB) within the scope of the “Agriculture Sector Recovery In Türkiye's Earthquake-Affected Provinces Project” (Project).

Project targeted provinces are the eleven provinces in Türkiye that sustained the greatest damages in the February 2023 earthquakes as well as targeted nearby provinces for specific pastureland restoration projects. The eleven provinces declared as disaster zones after February 2023 earthquake events are Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye, and Şanlıurfa. Recognizing the dynamics of livestock production in the region, efforts on pasture restoration will extend to communal pasturelands in provinces adjacent to the earthquake area, specifically in Sivas, Kayseri, Erzincan, and Mardin. This expansion aims to improve roughage accessibility for shepherds from the affected provinces, particularly during hot summer periods.

This ESMF follows the WB Environmental and Social Framework (ESF) as well as the national laws and regulations of Türkiye. The objective of the ESMF is to assess and mitigate potential negative environment and social risks and impacts of the Project consistent with the Environmental and Social Standards (ESSs) of the WB ESF and national requirements. More specifically the ESMF aims to: (a) assess the potential E&S risks and impacts of the proposed Project and propose mitigation measures; (b) establish procedures for the E&S screening, review, approval, and implementation of activities; (c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring E&S issues related to the activities; (d) identify the training and capacity building needed to successfully implement the provisions of the ESMF; (e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and (f) establish the budget requirements for implementation of the ESMF.

This ESMF should be read together with other documents prepared for the project, including SEP (Stakeholder Engagement Plan), ESCP (Environmental and Social Commitment Plan), RF (Resettlement Framework), and LMP (Labor Management Procedures) and should be integrated in the Project Operation Manual (POM) and serve as a basis for the implementation of the proposed Project.

The project covers three components which will be implemented by three General Directorates of MoAF with following activities.

### **Component (1): Enabling Service Provision for a Climate Resilient Agriculture Sector Recovery**

This component will be implemented by TRGM, and has following subcomponents.

- Subcomponent 1.1: Investing in Irrigation for Enhanced Water-Efficiency and Climate Resilience
- Subcomponent 1.2: Promoting Common Machinery Utilization Models for Improved Access to Mechanization

## **Component (2): Supporting Climate-Smart Recovery of the Livestock Sector**

This component will be implemented by the General Directorate of Livestock (HAYGEM) and General Directorate of Plant Production (BÜGEM) and has following subcomponents.

- Subcomponent 2.1: Recovering the Productive Capacity of Livestock Farmers and Enterprises
- Subcomponent 2.2: Restoring Pastureland for Enhanced Livelihoods and Resilient Animal Production Systems

## **Component (3): Project Management, Monitoring and Evaluation**

The General Directorate of European Union and Foreign Relations (ABDGM) will be responsible for the implementation of this component. ABDGM will manage all aspects of the project and ensure its successful execution.

Activities under this component will support all project management functions. It will include support for a Project Coordination Unit (PCU) under ABDGM, and the project implementing General Directorates (TRGM, BÜGEM and HAYGEM) for strengthening capacity for day-to-day project management of technical, fiduciary, monitoring and evaluation (M&E), grievance redress, citizen engagement, and implementation of the communications; and M&E of project activities, including impact assessments, beneficiary satisfaction surveys, and development of an integrated system for project management and monitoring of project outputs and outcomes.

The project will follow the WB E&S standards as described in the Bank's Environmental and Social Framework (ESF). According to the WB's E&S Policy, the Bank classifies all projects into one of four classifications as "High Risk", "Substantial Risk", "Moderate Risk" or "Low Risk" taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the Project; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other areas of risks that may be relevant to the delivery of E&S mitigation measures and outcomes. Based on this policy, the E&S risk of the project is categorized as "Moderate".

The Ministry of Agriculture and Forestry (MoAF), through its implementing units, will bear the responsibility for overall project implementation, including management and coordination. The General Directorates (GDs) (TRGM, HAYGEM and BÜGEM) will be responsible for specific subcomponents. The GDs responsible of overseeing project activities under their respective subcomponents and ensure effective engagement with MoAF's units and relevant stakeholders at the provincial level.

**A Project Coordinating Unit (PCU)** responsible for overall project coordination will be established under ABDGM. The PCU will be responsible for overseeing overall implementation and management of the project, ensuring proper application of all project-related requirements, and preparing all project documents to be submitted to the Bank. The PCU will host a dedicated multidisciplinary team of project management, technical, financial management, procurement, environmental, and social specialists with qualifications satisfactory to the WB. PCU's functions will be overseen by the leading Deputy Minister.

Relationship between PCU and GDs is shown in

Figure 3.

**A Project Steering Committee (PSC)** will be established to ensure effective coordination at a higher level and provide strategic advice. The PSC will have participation of senior leadership of MoAF, including Deputy General Directors from the relevant GDs, Head of Strategy Development Directorate, Head of Budget Department ve PCU Coordinator. Senior officials of the Ministry of Treasury and Finance and Presidency's Strategy and Budget Office will be invited to join specific sessions, based on project needs. The PSC will be chaired by the line Vice Minister of the MoAF with the PCU acting as the Secretariat. The key functions of the PSC will be to review the Annual Workplans and Budgets, monitor implementation progress, ensure effective institutional coordination, and provide guidance as needed for ensuring the delivery of project outputs and achievement of project outcomes.

One environmental specialist and one social specialist will assist in managing and implementing the environmental and social issues associated with this project. The E&S specialists will be employed under the PCU and responsible for ensuring overall compliance of the proposed Project with ESF requirements. While each specialist will have a primary focus, they will be available to provide support across subcomponents as needed and support the GDs. All specialists will be onboarded at the beginning of the proposed Project and will maintain their positions throughout the project implementation. Environmental and Social focal points are expected appointed at each General Directorate all along project implementation.

Some of the potential E&S risks and impacts anticipated from the sub-project activities of the project can be effectively avoided or minimized at the early stages of planning and design by considering changing or rerouting of implementation sites, improvising design structures, using technology inputs, maintaining quality and standards of design materials, adhering to regulatory requirements, and preparing risk/impact management plans and emergency plans. The mitigation measures to be taken during the planning and design process are included in Table 3 to avoid any significant E&S risk.

A separate SEP has been prepared for the Project, based on the World Bank's ESS10 on Stakeholder Engagement and Information Disclosure. The documents can be found here: <https://tarimorman.gov.tr/>

This ESMF and SEP will be consulted with the Project stakeholders in order to inform them about the Project, communicate their feedback and address the concerns and comments. Vulnerable groups will be considered during selection of the effective engagement methods. Any comment of the document can be sent to MoAF via the webpage: <https://timer.tarimorman.gov.tr/>



## 1. Introduction

This ESMF is developed to support the E&S due diligence provisions for the activities financed by WB within the scope of the “Agriculture Sector Recovery in Türkiye’s Earthquake-Affected Provinces Project” (The Project). The Project will support short-term economic recovery and address more mid-term recovery and reconstruction needs across agrifood subsectors in the provinces (Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye and Şanlıurfa) affected by the earthquakes, on 6 and 20 February, 2023 and the neighboring provinces (Mardin, Sivas, Erzincan, and Kayseri) in Türkiye. The Ministry of Agriculture and Forestry (MoAF) will be implementing the Project activities.

This ESMF follows the WB Environmental and Social Framework (ESF) as well as the national laws and regulations of Türkiye. The objective of the ESMF is to assess and mitigate potential negative environment and social risks and impacts of the Project consistent with the Environmental and Social Standards (ESSs) of the WB ESF and national requirements. More specifically the ESMF aims to: (a) assess the potential E&S risks and impacts of the proposed Project and propose mitigation measures; (b) establish procedures for the E&S screening, review, approval, and implementation of activities; (c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring E&S issues related to the activities; (d) identify the training and capacity building needed to successfully implement the provisions of the ESMF; (e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and (f) establish the budget requirements for implementation of the ESMF.

This ESMF should be read together with other documents prepared for the project, including SEP, ESCP, RF and LMP.

## 2. Project Description

The earthquakes and aftershocks that struck Southeast Türkiye in early February 2023 have caused catastrophic devastation, which, compounded by pre-existing pressures, is exacerbating food security and poverty challenges. Official statistics estimate that the February earthquakes resulted in 50,000 casualties, with 107,000 people injured, and many disabled. Before the earthquake, the eleven earthquake-affected provinces accounted for 16.4 percent of Türkiye’s population and 9.4 percent of national Gross Domestic Product (GDP).<sup>1</sup> Thus, along with human casualties, the earthquakes have caused massive damage and the macroeconomic impacts are still unfolding.

Project targeted provinces are the eleven provinces in Türkiye that sustained the greatest damages in the February 2023 earthquakes as well as targeted nearby provinces for specific pastureland restoration projects. The eleven provinces declared as disaster zones after February 2023 earthquake events are Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye, and Şanlıurfa. Recognizing the dynamics of livestock production in the region, efforts on pasture restoration will extend to communal pasturelands in provinces adjacent to the earthquake area, specifically in Sivas, Kayseri Erzincan, and Mardin. This expansion aims to improve roughage accessibility for shepherds from the affected provinces, particularly during hot summer periods.

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<sup>1</sup> <https://documents1.worldbank.org/curated/en/099061423141522303/text/BOSIB0be8dfe3b0e40b4d704983cde266fa.txt>

The earthquake affected provinces in the east, south and southeast of Türkiye. The earthquake affected provinces and the provinces where the project will be implemented are shown in the maps below (Figure 1 and Figure 2).

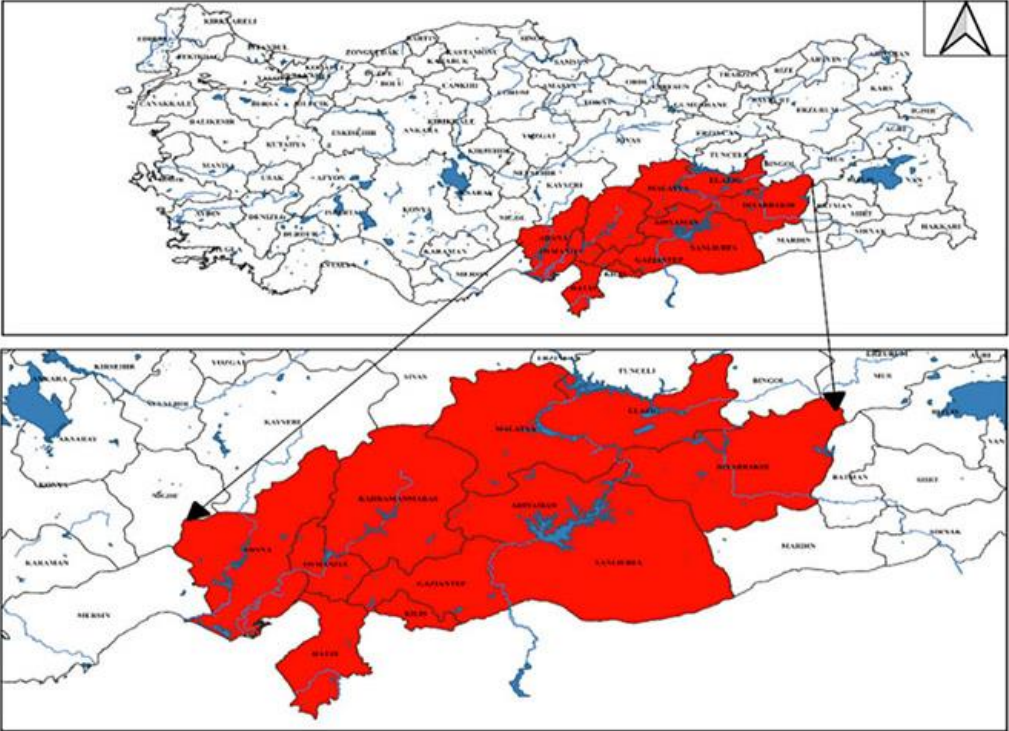


Figure 1: Earthquake Region Location<sup>2</sup>

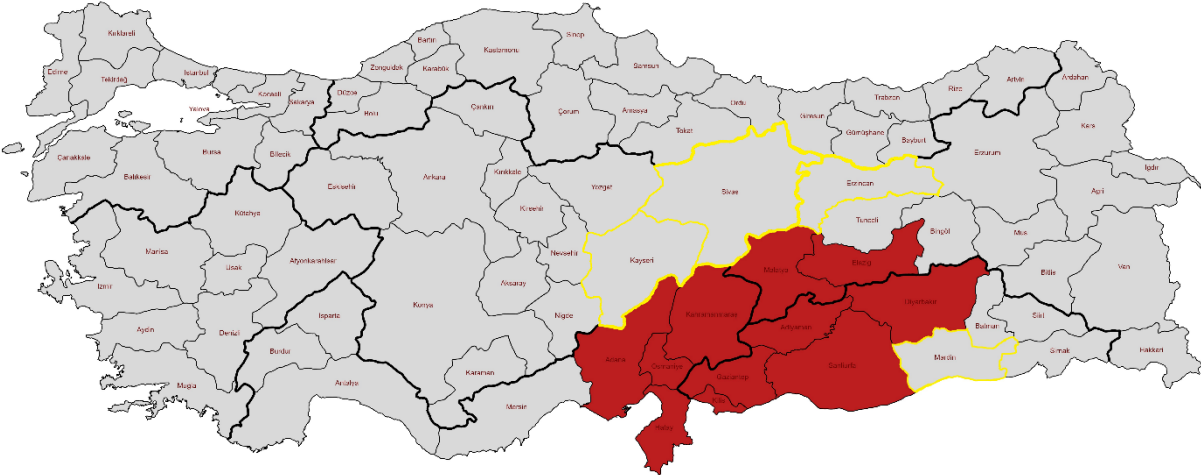


Figure 2: Project Implementation Provinces<sup>3</sup>

<sup>2</sup> General Directorate of Land Registry and Cadastre Web Page: <https://tkgmmakale.com/kahramanmaraş-depremi-kapsamında-yurutulen-calismalar>

<sup>3</sup>The provinces highlighted in red are earthquakes affected provinces. The cities surrounded by yellow lines are the provinces adjacent to the earthquake region. All these provinces have been selected as project implementation provinces.

The agriculture sector is an important pillar of the socio-economic structure of the earthquake affected provinces. The region is known as the “Fertile Crescent” and is critical for agricultural production, food industry and agricultural livelihoods, contributing 15.3 percent share of the value generated by the agriculture & forestry sector nationally. About 14 percentage of the farmers of Türkiye are in the earthquake area. The February 2023 earthquakes affected all segments of agri-food supply chains, simultaneously affecting farm production and processing, transport, and logistic activities. Farmers have been confronted with damaged productive infrastructure and with limitations accessing inputs as seed, pesticides, fertilizers, and energy; while packing and processing facilities have been damaged or converted into shelters for thousands from surrounding affected communities. The disaster is expected to widen inequalities between women and men in the agricultural sector which manifest directly in the form of access to real estate, property, livestock, agricultural machinery and equipment, and financial resources. Importantly, the impact of the earthquake has resulted in a large displacement and out-migration of the local population which will severely limit the available agriculture workforce.

WB will be providing finance to the Government of Türkiye to support short-term economic recovery and address more mid-term recovery and reconstruction needs across agrifood subsectors in Türkiye’s earthquake-affected provinces. Project investments are intended to contribute to restore agrifood supply chain flows in the affected provinces by ensuring continued access by farmers and agribusinesses to key inputs and services. Additionally, it aims to promote mid to longer-term rebound and recovery, focusing on higher climate resilience, inclusiveness, and environmentally and socially sustainable agrifood production and processing.

MoAF will coordinate project activities, including day-to-day implementation, coordination, supervision and overall management of project activities.

The project covers three components which will be implemented by four general directorates of MoAF. The project components are described below.

### *2.1. Component (1): Enabling Service Provision for a Climate Resilient Agriculture Sector Recovery*

This component is to be implemented by the General Directorate of Agricultural Reform (TRGM) and will focus on rebuilding and enhancing services to farmers to help them reclaim and enhance production capacity while also bolstering climate resilience. It will focus largely on facilitating sustainable irrigation and mechanization services. Component activities are to be implemented through two subcomponents.

#### *a. Subcomponent 1.1: Investing in Irrigation for Enhanced Water-Efficiency and Climate Resilience*

This subcomponent aims to facilitate the repair, construction, and modernization of irrigation infrastructure managed by cooperatives in earthquake-affected areas. Its primary focus is on converting open channels into closed, pressurized systems and repairing associated infrastructure such as pipes, valves, and pumping stations. Additionally, it will support the installation of prepaid meters to water intake facilities and the implementation of solar-powered pumps. These investments will lead to the continuity of the irrigation services provided to farmers, while enhancing service reliability and efficiency. This subcomponent will finance irrigation-related civil works, procurement of goods, technical and environmental & social (E&S) studies, as well as training programs for extension officers, irrigation cooperatives, and farmers.

The investments to be made under this subcomponent are anticipated to rehabilitate and enhance irrigation efficiency across 9,000 hectares of land. Upon completion of the rehabilitation and improvement efforts, the irrigation infrastructure will be transferred to irrigation farm cooperatives, which will assume responsibility for its ongoing management. Subcomponent activities will

significantly contribute to strengthening the climate resilience of 2,500 farmers in the targeted earthquake-affected areas.

*b. Subcomponent 1.2: Promoting Common Machinery Utilization Models for Improved Access to Mechanization*

This subcomponent aims to facilitate access to machinery services for farmers and promote sustainable mechanization approaches in earthquake-affected areas. Acknowledging the size and fragmentation of farmers, which makes individual machinery ownership economically unfeasible, the subcomponent will support models for joint machinery ownership and usage facilitated by agricultural organizations via the establishment of machinery parks.

TRGM team will initiate subcomponent implementation through a set of awareness creation workshops, at the provincial level. As a follow-up to the engagement workshops, TRGM will launch a call for expressions of interest to agricultural organizations to participate in the machinery park program. Overall criteria for the selection of beneficiary agricultural organizations will include, at a minimum: i) Registration with TRGM and in existence for two five years; (ii) A minimum active membership of 25 farmers; (iii) Demonstrated active membership (as per affiliation paid fees); (iv) Demonstrated proper financial management as per the balance sheets of the last three years; (v) Demonstrated minimum capacity to manage a machinery park; (vi) Availability of land for the location of the machinery park; and (vii) Have administrative buildings to perform administrative functions related to the machinery park. Other criteria are to be described in the Grant Manual. The evaluation of the compliance with these criteria will be done by TRGM at central level.

The agricultural organizations that fulfill the criteria will receive technical assistance for the preparation of the detailed investment plans for the establishment of the machinery park. The project will support the implementation of investment plans found economically, technically, and environmentally viable by co-sharing the costs of machinery acquisition and by providing support for machinery repair/maintenance and repair/construction for storing facilities for the machinery equipment. The subcomponent will also support the training of beneficiary agricultural organizations, farmers and machinery operators.

*2.2. Component (2): Supporting Climate-Smart Recovery of the Livestock Sector*

The objective of this component is to facilitate the recovery and modernization of the livestock sector in earthquake-affected provinces by adhering to building-back-better principles, under climate-smart livestock approaches. Implementation will be carried out through two subcomponents.

*a. Subcomponent 2.1: Recovering the Productive Capacity of Livestock Farmers and Enterprises*

The subcomponent will be implemented by the General Directorate of Livestock (HAYGEM). Subcomponent activities aim to facilitate recovery of productive capacity, increase production efficiency, and enhance climate resilience among small and medium-scale livestock farm enterprises engaged in cattle, sheep, goat and poultry production systems in earthquake-affected areas. The subcomponent activities will cover: (i) implementation of a grant program for renovation and modernization of infrastructure and equipment for primary livestock production targeting small and middle scale livestock farm enterprises; (ii) improvement of veterinary services through the provision of vaccination equipment to MoAF's local offices (Provincial Directorates of Agriculture (PDAs) and District Directorates (DDs)); and (iii) awareness creation, training, M&E and studies to support activities (i) and (ii).

Under the grant program, the project will cover up to 75 percent of the cost of the farmer's financing requests, with the beneficiary farmer required to contribute the remaining 25 percent in cash. The grant program will support two types of investments: (i) Repair/modernization of barn/sheds including manure management requirements & fences and (ii) Acquisition of equipment.

Criteria for applying to the grant program include: i) Natural persons registered as farmers in the country's farmer identification system; ii) Farmers impacted by the earthquake in their essential productive assets, with evidence verifiable through victim records or specific certifications from official entities; and iii) Production scale limits, which stipulate that cattle producers are restricted to fewer than 100 heads; small ruminant producers to fewer than 300 heads; and poultry producers to a productive capacity of less than 100,000 broiler chickens, laying hens, turkeys, or ducks per year. The grant program is expected to benefit approximately 7,000 livestock producers/farm enterprises.

In addition to the grant program, the subcomponent will also support PDA/DDs, via the provision of mobile veterinary units and other veterinary supplies. These investments will allow enhancement and expansion of service provision to underserved locations, thereby preventing and effectively addressing the risks of disease outbreaks, including those stemming from climate-sensitive zoonotic diseases. Approximately 135 territorial public offices will benefit from these specific investments. Furthermore, technicians from the PDA/DDs will receive specialized training in various improved animal husbandry practices and climate-smart livestock management approaches.

#### b. Subcomponent 2.2: Restoring Pastureland for Enhanced Livelihoods and Resilient Animal Production Systems

The subcomponent will be implemented by the General Directorate of Plant Production (BUGEM). Subcomponent activities support the sustainable management of pastures/grasslands, and consequently the recovery of rural communities reliant on these natural ecosystems for their livelihoods, while enhancing the provision of ecosystem services these pasture/grasslands provide. Subcomponent activities will cover: (i) Procurement of goods/equipment and services, and small works needed for the implementation of Pasture Management Plans (PMPs); (ii) Implementing a pasture information system; (iii) Carrying out assessments/studies; and (iv) Awareness, training and M&E activities.

The subcomponent will finance the implementation of over 400 Pasture Management Plans prepared by MoAF to improve pasture and grazing conditions. Approximately 150 PMPs will be implemented in adjacent areas to the earthquake-affected provinces (provinces of Sivas, Kayseri, Erzincan and Mardin), with a focus on rehabilitating degraded pasture areas and improving grazing conditions through cultivation, fencing and drainage works.

The PMPs have been prepared within the framework of the Pasture Law 4342 and the associated Pasture Rehabilitation and Management regulations and cover a range of investments to be procured directly by BUGEM. The PMPs will be implemented over five years, with most investments in infrastructure and planting completed in the first two years. Beneficiary communities will provide voluntary in-kind contributions. Post-implementation and in accordance with the pasture legislation, maintenance and monitoring of the proper use of pasture will be carried out by the PDAs, while beneficiaries will be responsible for proper use of physical investments and equipment.<sup>4</sup>

In addition, the subcomponent will support the establishment of a digital technology-based pasture information system on the project areas, but with application nationally. Studies will also be financed to identify and propagate climate-adapted native and drought resistant plant species link to implementation of PMPs as well as pasture composition species and other relevant topics. Training events will be organized for technical professionals in MoAF, who will then regularly train farming families and shepherds on the proper management of pastures to enhance their resilience and long-term sustainability.

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<sup>4</sup> Non-compliance of management and established grazing plans/periods (as established in the PMPs) is to be reported by local authorities to the Provincial Governors who have the legal authority for sanctioning transgressors by limiting or revoking the right to pasture use privileges or any other legal actions.

### *2.3. Component (3): Project Management, Monitoring and Evaluation*

ABDGM will be responsible for the implementation of this component. This component will finance consulting and non-consulting services, goods, training and operating costs for supporting the Project Coordination Unit (PCU) at ABDGM and General Directorates (TRGM, BÜGEM, and HAYGEM) in project management and implementation activities under the project, including for, but not limited to, monitoring and evaluation, reporting, procurement, financial management, E&S management, grievance redress mechanism, citizen engagement, project communication and debriefing and outreach.

As MoAF currently implements several World Bank (WB) operations, there is an emerging need for a clearly defined institutional set up with human resources, policies, and standard operating procedures to supervise and manage the environmental and social (E&S) risks and impacts of projects following WB and other international financing institutions' (IFI) E&S policies. Therefore, policies and procedures will be developed by MoAF in line with the Bank's E&S Framework (ESF) that would be necessary for the establishment of an ESMS at MoAF. Description of the process for developing the ESMS will be provided in the POM. The ESMS, once functional, will facilitate using "Borrowers' (MoAF's) Framework" for the WB and other IFI funded projects and enhance MoAF's capacity to assess and manage E&S impacts and risks in all projects.

## 3. Environmental and Social Policies, Regulations and Laws

### *3.1. Legal Framework of Türkiye*

Turkish national policy on environment, cultural heritage, conservation of biological resources and management of labor and OHS issues have been formulated based on European Union (EU) Directives and relevant international agreements signed or ratified by Türkiye. Relevant environmental, OHS and international labor agreements and conventions signed or ratified by Türkiye, and detailed list of regulation related to the project activities are listed in Annex 3 of ESMF.

National laws and regulations which are relevant to the environmental and social risks and impacts of project activities are briefly described in Table 1 below.

**Table 1:** Summary of Turkish Legal Framework of Türkiye

Legislation	Description
Environmental Protection and Conservation	<p>The Ministry of Environment, Urbanization and Climate Change (MoEUCC) sets principles and policies for protection of environment, monitors and audits implementation, and regulates settlements and environmental protection measures. MoEUCC is also the lead authority for domestic and international climate change policies and the implementation of the relevant strategy and action plan.</p> <p>The Environmental Law No. 2872 is Türkiye’s primary framework for environmental legislation and is supported by a series of laws, regulations, and communiques most of which have recently been revised to be harmonized with the EU Directives in the scope of Türkiye’s pre-accession efforts. It lays out the main responsibilities and requirements of the institutional authorities and the businesses regarding protection and preservation of the environment. The Law aims to protect and improve the environment which is the common asset of all citizens; make better use of, and preserve land and natural resources in rural and urban areas; prevent water, land and air pollution; by preserving the country’s vegetative and livestock assets and natural and historical richness, organize all arrangements and precautions for improving and securing health, civilization and life conditions of present and future generations in conformity with economic and social development objectives, and based on certain legal and technical principles. Complementary to the Environmental Law and its regulations, other laws also govern the protection and conservation of the environment, resources, and cultural and natural assets, the prevention and control of pollution are listed in Annex 3.</p>
Occupational Health and Safety Law (OHS)	<p>The Ministry of Labor and Social Security is the main responsible organization in this field, in collaboration with other ministries and stakeholders, and is responsible for developing, implementing and enforcing legislation.</p> <p>In recent years, Türkiye has undergone a reform to improve its national OHS system by adapting a set of international and regional standards into its national-level requirements for the prevention of occupational risks as defined in the International Labor Organization (ILO) Occupational Safety and Health Convention, 1981 (No. 155). The convention, along with the Occupational Health Services Convention, 1985 (No. 161) were both ratified by Türkiye in 2005. Türkiye has also been a party to the Labor Inspection Convention, 1945 (No. 81) since 1951. In 2014, Türkiye ratified the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187). In 2012, a stand-alone Law on OHS (No. 6331) was put into force. The OHS Law governs workplace environments and industries (both public and private) as well as virtually all classes of employees including part-time workers, interns, and apprentices. The legislation is comprehensive and is generally applicable across all sectors and many industries. Regulations complementary to this law and potentially to be used during the implementation of the Project are listed in Annex 3.</p>
Labor and Working Conditions	<p>The Ministry of Family and Social Services is the main responsible organization in labor and working condition issues and monitoring of them.</p> <p>Türkiye is a party to a multitude of ILO conventions, including but not limited to conventions on equal treatment of employees, gender equality, child labor, forced labor, OHS, right of association, and minimum wage. Accordingly, the Labor Law (No. 4857), which is the main law that governs relations between employees and employers, as well as other legal relations deriving from such relations, is to a large extent consistent with WB ESS2 requirements. The Law regulates all forms of employment, rights, obligations, responsibilities and relations between employees and employers, and union operations unless otherwise provided by special laws. There are also secondary legislations that may apply to the Project which include regulations on annual leave, working hours, overtime work, minimum wage, and female and child employees. The Ministry of Family and Social Services has published various communiques and circulars that set the ground for the implementation of the Labor Law which may also be referenced during project implementation. This relevant legislation is listed in Annex 3.</p>

Legislation	Description
Cultural Heritage	<p>Law on Protection of Cultural and Natural Heritage (No: 2863) designates movable and immovable cultural and natural assets, to designate protection areas and archeological sites. This Law lays down the procedures and principles for their management and protection. The Law further sets forth the rules regarding the expropriation of and the obligations and responsibilities of real and legal persons regarding these assets. The Law also covers the principles and procedures governing research, drill and excavations. In addition, chance find procedure to be applied if any unknown archaeological resources are encountered is explained in the law.</p>
Land Acquisition and Resettlement	<p>In the scope of the Turkish legal framework, land acquisition/expropriation is based on Expropriation Law No: 2942 (amended by Law No: 4650 in 2001). In addition, Article 46 of the Turkish Constitution explains that state and legal public entities, in cases of public benefit, are entitled to entirely or partially expropriate immovable properties in private possession, on condition that the real value of those immovable properties is paid in advance and cash; and to establish easement rights on these immovable properties in compliance with the procedures and principles set by Expropriation Law. In other words, the Constitution implies that any immovable property cannot be confiscated unless its expropriation compensation is paid to the owner/s in advance and in cash. Compensation for the expropriated estate is determined pursuant to procedures and principles in Articles 8, 10 and 11 of the Expropriation Law. Valuation criteria are stated in Article 11 of the Law. The Expropriation Law defines that the determination of the compensation for the expropriated land depends on the average annual net income derived from that land by taking into account the rotation system, valuation of structures includes the calculation of construction unit prices, and valuation of plots (housing) depends on peer assessment. The valuation commission is internally established by the organization responsible for land acquisition and is comprised of at least three members. In case of a necessity, this commission can get information from the Chamber of Industry and Commerce, real estate agencies and other individual or institutional authorities that are specialized on those points.</p> <p>Resettlement activities are regulated by Resettlement Law. This law deals with the families applying to related governmental agencies in the project design and requesting government assisted resettlement. Resettlement assistance of the government is provided for entitled families while expropriation compensation payments are paid to all individuals.</p> <p>The Disaster and Emergency Management Presidency (AFAD) has the overall responsibility for coordinating post-disaster housing reconstruction and has a range of programs and implementing partners at its disposal, including MoEUCC. For rural housing, given the large area affected by the earthquakes, AFAD has also activated the state-led post-disaster housing reconstruction program with MoEUCC that rebuilds rural housing and livelihood structures (barns and workplaces) on behalf of eligible property owners at their request. The state-led post-disaster rural housing reconstruction program in Türkiye includes the reconstruction of housing, livelihood buildings (barns, workplaces), and associated basic infrastructure in villages. It has clear eligibility criteria that have been further refined for the February 2023 earthquakes by Presidential Decision No. 6785 (dated February 8, 2023), Decree No. 126 (dated February 23, 2023), and Decree No. 142 (dated April 12, 2023).</p> <p>Other relevant legislation about land acquisition and resettlement which can be implemented during project implementation is Civil Code (Law No. 4721) which includes sets the rules during acquisition of real estate , Cadastral Law (Law No. 3402) which include rules about cadastral application , Forest Law (Law No. 6831) which sets the rules for acquisition of forest lands, Environmental Law (Law No. 2872) which include clauses related to land use and permitting process, Law on Municipalities (Law No. 5393) which includes clauses about responsibility of municipalities during land acquisition, Pasture Law (Law No. 43442) which sets the rules for acquisition of pasture lands and Village Law (Law No. 442) which sets the rules for the village land requirements.</p>



Legislation	Description
Stakeholder Engagement	<p data-bbox="427 236 2031 355">Access to information is the right of individuals to access the information included in the records of public institutions and agencies. National legislation on access to information is governed by the Constitution of the Republic of Türkiye, Law on Access to Information (No: 4982), Law on Use of Right to Petition (No: 3071) and EIA Regulation. Stakeholder engagement is secured by the Constitution of the Republic of Türkiye. The Constitution contains provisions that ensure that people can freely express their views. At the same time, everyone has the "Right to Petition" as per the Constitution.</p> <p data-bbox="427 387 2031 507">The Law on Access to Information regulates the procedure and basis of the right to information following the principles of equality, impartiality and openness, which are the requirements of a democratic and transparent government. According to the obligation to provide information, institutions and organizations are required to take necessary administrative and technical measures for all kinds of information and documents, considering the exceptions set out in this law, to provide information to applicants; and to evaluate and decide on applications promptly, effectively and correctly.</p> <p data-bbox="427 539 2031 659">The Law on Protection of Personal Data (No: 6698) regulates the procedures to protect fundamental rights and freedoms of persons, particularly the right to privacy, with respect to processing of personal data and to set forth obligations, principles and procedures which shall be binding upon natural or legal persons who process personal data. As per the Law on Use of the Right to Petition citizens of the Republic of Türkiye, may submit their complaints to the Grand National Assembly of Türkiye through a written petition. On the condition of reciprocity and using the Turkish language in their petitions, foreigners residing in Türkiye are entitled to enjoy this right.</p> <p data-bbox="427 691 2031 770">Within the scope of the EIA Regulation, for the projects included in the Annex-I list, a public participation meeting is organized by the bodies and organizations authorized by the MoEUCC with the participation of the project owner on the date set by the MoEUCC and at the place and time determined by the Governor's Office before the Committee determines the scope to inform the public about the investment and to hear their opinions and suggestions regarding the project.</p>

### 3.2. National Environmental and Social Assessment and Permitting

The central government entities in Türkiye are presented below:

- The Presidency, including the presidential administrative offices and policy councils
- Turkish Grand National Assembly (TBMM)
- Ministries that create policies and perform compliance assurance functions. The ministries also contain a number of general directorates and offices, which coordinate and supervise a range of specific activities.

General Directorate of EIA, Permit and Inspection of MoEUCC is responsible for managing environmental assessments and permitting in the country. For the management of environmental issues, MoEUCC also collaborates with other ministries (including their provincial organizations where relevant), government agencies and relevant stakeholders, as appropriate. Article 10 of Environmental Law sets out the general scope of the EIA procedure in Türkiye, indicating that institutions, agencies, and establishments that lead to environmental problems as a result of their planned activities are obliged to obtain an EIA permit prior to the project construction works.

Based on this legal framework, the EIA Regulation was put into force for the first time after being published in the Official Gazette in 1993. Since then, there have been several amendments to the first regulation and the latest EIA Regulation has been published in the Official Gazette dated July 29, 2022, and numbered 31907, which repealed the 2014 EIA Regulation.

The EIA Regulation is largely in line with the EU Directive on EIA. The key relevant steps of the Turkish EIA procedure are screening, public consultation, scoping, review and approval of the EIA Report, disclosure, and monitoring and inspection.

The EIA Regulation classifies projects into two categories:

- Annex I projects: These projects have significant potential impacts and require an EIA. Annex I of the EIA Regulation lists these project types, so project proponents are expected to start the EIA procedure without any other screening process; and
- Annex II projects: Annex II of the EIA Regulation covers projects that may or may not have significant effects on the environment.

Some of the items in the annexes of the EIA Regulation are related to agriculture and animal husbandry activities and this can require obtainment of EIA permit for the project activities. An indicative list for the project which require preparation of a national EIA is provided below.

- **Annex 1:**

- 16-Animal slaughter facilities;

a) Facilities where 100 or more cattle and/or equivalent small cattle are slaughtered daily (Equivalent for each slaughter: 1 head of cattle, 2 heads of ostriches, 4 heads of pigs, 8 heads of sheep, 10 heads of goats, 130 heads of rabbits),

b) Facilities that conduct daily slaughter of 60,000 or more chickens and equivalent poultry (1 turkey = 7 chickens, 1 goose = 3 chicken, 1 duck = 2 chickens equivalent should be considered).

- 17-Animal breeding facilities;

- a) Cattle breeding facilities of 5,000 heads and above,
- b) Small cattle breeding facilities of 25,000 heads and above,
- c) Cattle or equivalent small cattle breeding facilities together of 5,000 heads and above (1 cattle = 5 sheep equivalent should be taken as basis),
- c) Facilities with 900 or more pigs for fattening,
- d) Poultry farms with 60,000 or more birds (including chicks, breeders, broilers, etc.) or equivalent poultry farming facilities in one production period (1 turkey = 7 chickens, 1 goose = 3 chicken, 1 duck = 2 chicken should be considered),

18- Aquaculture projects (with an annual production of 1,000 tons or more),

19- Facilities that produce 200 tons or more of crude oil per day from plant products or perform refining processes (excluding essential oils such as thyme, chamomile, hemp, and similar).

- **Annex 2:**

- 26-Production of plant and animal products

- a) Vegetable oil or refined oil production facilities (excluding the production of essential oils such as thyme, chamomile, hemp, etc.),
- b) Facilities producing starch or starch derivatives,
- c) Facilities producing vinegar with fermentation of 1,000 m<sup>3</sup>/year or more,
- ç) Facilities producing suma or malt of 1,000 m<sup>3</sup>/year or more,
- d) Olive processing facilities with an annual capacity of 1,500 tons or more,
- e) Cigarette factories or facilities producing smoking tobacco products with an annual capacity of 1,000 tons or more,
- f) Yeast factories,
- g) Facilities producing alcoholic beverages of 5,000 liters/year or more,
- ğ) Facilities producing non-alcoholic beverages of 1,000 m<sup>3</sup>/year or more (excluding bottled waters for human consumption and natural mineral waters),
- h) Facilities producing 1,000 tons or more of tomato paste,
- ı) Facilities melting animal fats with a processing capacity of 100 tons/year or more,
- i) Aquatic product processing facilities,
- j) Dairy processing facilities with a capacity of 10,000 liters/day or more,
- k) Solid fat production facilities of vegetable and/or animal origin with a capacity of 20 tons/day or more,
- l) Aquaculture projects with an annual production of 30 tons or more,
- m) Fish hatcheries producing 40 million or more fry per year,

- n) Facilities conducting slaughter of 20 or more cattle and/or equivalent small livestock per day (Each slaughter equivalent: 1 head of cattle, 2 ostriches, 4 pigs, 8 sheep, 10 goats, 130 rabbits),
  - o) Facilities conducting slaughter of 1,000 or more chickens and equivalent other poultry per day (1 turkey = 7 chicken, 1 goose = 3 chicken, 1 duck = 2 chickens equivalent should be considered),
  - ö) Liquid egg production facility with a capacity of 10 tons/day or more,
  - p) Rendering facilities,
  - r) Whey processing facilities with a processing capacity of 10,000 liters/day or more,
  - s) Facilities producing confectionery, sugar syrup products with a production capacity of 50 tons/year or more,
  - ş) Facilities producing cocoa-based products such as chocolate/chocolate products, cocoa liquor, cocoa powder, cocoa butter using cocoa beans as raw material with a production capacity of 50 tons/year or more,
  - t) Canning and packaging of vegetable and animal products with a final product capacity of 100 tons/day or more,
  - u) Fish meal and fish oil processing plants,
- 27-Animal breeding facilities;
- a) Facilities for raising 500 or more large livestock,
  - b) Facilities for raising 2,500 or more small livestock,
  - c) Facilities for jointly raising 500 or more large livestock or equivalent small livestock (1 large livestock = 5 small livestock equivalents should be considered),
  - ç) Poultry farms with 20,000 or more birds (including chicks, breeders, broilers, etc.) or equivalent poultry farming facilities in one production period (1 turkey = 7 chickens, 1 goose = 3 chicken, 1 duck = 2 chickens equivalent should be considered),
  - d) Facilities engaged in fur animal farming (5,000 or more),
  - e) Pig fattening facilities with 300 or more pigs,

### *3.3. World Bank Standards and Key Gaps with the National Framework*

The project will follow the WB E&S standards as described in the Bank's Environmental and Social Framework (ESF). According to the WB's E&S Policy, the Bank classifies all projects into one of four classifications as "High Risk", "Substantial Risk", "Moderate Risk" or "Low Risk" taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the Project; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other areas of risks that may be relevant to the delivery of E&S mitigation measures and outcomes. Based on this policy, the E&S risk of the project is categorized as "Moderate".

The subcomponents of the project are provided in Section 2 and the activities which will be carried out within the scope of the project is given in Section 4 of this ESMF. Potential substantial E&S risks and impacts and the mitigation measures to be implemented by MoAF is provided in **Table 3**.

The World Bank's E&S standards applicable to project activities are summarized in the table below, as well as key gaps between the national framework and the policies.

**Table 2: Relevant World Bank ESS and Key Gaps with the National Framework**

E&S Standard	Relevance	Key Gaps
<p>ESS1 Assessment and Management of Environmental and Social Risks and Impacts</p>	<p>ESS1 requires the assessment, identification, evaluation and management of the environment and social risks and impacts of the project in a manner consistent with the ESSs. It regulates the adoption of differentiated measures in equal sharing of the development benefits and opportunities resulting from the project.</p> <p>ESS1 is relevant for the project because project activities are expected to pose E&amp;S risks detailed in this ESMF.</p> <p>The requirements covered under ESS 1 are covered by preparation and implementation of ESCP, ESMF, SEP, LMP, RF.</p> <p>During the application of the ESS 1, national E&amp;S institutions, systems, laws, regulations and procedures are required to be utilized in the development and implementation phases of the project.</p> <p>Overall, the ultimate objective is to promote improved E&amp;S performance, in ways which recognize and enhance Borrower capacity.</p>	<p>The major gaps between the national legislation and ESS1 which are covered by preparation of the E&amp;S documentation described in left column are as follows:</p> <ul style="list-style-type: none"> <li>• Social impact assessment is not completely integrated to the national legislation, and this results in the lack of proper social baseline, and assessment of the project induced social impacts including impacts on disadvantaged or vulnerable and gender related issues in the EIAs;</li> <li>• The absence of an executive summary and information on the legal and institutional framework in the Turkish EIA (Technical level of information in the non-technical summary required in the EIA Reports may not meet WB requirements);</li> <li>• Limited requirement to cover cumulative impacts with other projects.</li> <li>• Limited emphasis on the associated facilities; and</li> <li>• Although mitigation and monitoring measures are required for adverse impacts, no specific requirement for an ESMP.</li> </ul>
<p>ESS2 Labor and Working Conditions</p>	<p>ESS2 aims at promoting safety and health at work, ensuring fair treatment, non-discrimination and equal opportunity for all project workers, protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers.</p> <p>ESS2 is relevant for the project because there are certain labor risks for project workers. Labor related risks include (i) security risks to project workers, (ii) traffic and road safety issues, (iii) inadequate terms and conditions of employment, and (iv) OHS risks.</p> <p>All relevant principles defined under the ESS 2 will be implemented for the workforce of the Project in line with LMP in order to fulfill the requirements of ESS2.</p>	<p>In general, national laws and regulations regarding labor and working conditions fulfill ESS2 requirements. Worker grievance mechanism is the main gap between national legislative requirement and ESS2. In national legislation on labor and working conditions, there is no specific requirement related to grievance mechanism that allows workers to communicate their complaints to the employer. Workers can complain through the legal system or through government-established complaint channels, such as the Presidential GM system (see below in Section 6.1) or the Ministry of Labour hotline number.</p> <p>LMP prepared for the Project, provides guidance on the relevant management measures (such as workers grievance mechanism, code of conduct, etc.) stipulated by ESS2. SEP of the Project describes internal grievance mechanism to be used by the workers.</p>

E&S Standard	Relevance	Key Gaps
	<p>Implementation of the principles will be in accordance with the written labour-related procedures in SEP and LMP (i.e., OHS, workers' grievance mechanism, human resources and labour management) specifically prepared for the Project, all of which comply with the ESS 2, national legislation, and applicable international requirements (i.e., ILO).</p>	
<p>ESS3 Resource Efficiency and Pollution Prevention and Management</p>	<p>The objective of the ESS 3 is to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing the polluting activities and emissions, managing existing pollution where necessary, avoiding generation of hazardous and non-hazardous wastes, and promoting the use of sustainable resources.</p> <p>ESS3 is relevant for the project because the project activities, particularly construction/reconstruction works, (i) entail the use of energy, water and materials (such as fuel, sand, cement, etc.), and (ii) pose potential risks and impacts including noise and dust emissions, and generation of wastes.</p>	<p>Most of the relevant national legislation is in line with EU directives. There is no major gap between ESS3 and legislative requirements.</p> <p>For effective implementation and management of the identified actions, Project specific ESMP that are complying with the ESS 3, national legislation, and applicable international standards are prepared on the subjects such as air quality, pollution prevention, chemicals and hazardous materials.</p>
<p>ESS4 Community Health and Safety</p>	<p>ESS4 focuses on the ways to anticipate and avoid adverse impacts on the health, safety and security of project-affected communities during the project lifecycle.</p> <p>It requires the Borrower to adopt effective measures to address emergency events.</p> <p>ESS4 is relevant for the project because there are certain risks for community health, which include security, traffic, labor influx.</p> <p>Project risks which can affect community health are covered under the ESMF and will be implemented throughout the Project life.</p>	<p>General principles of community health and safety are addressed under different pieces of legislation. In general, there is no gap in terms of policy. However, impacts from labor influx and gender-based violence related risks are not explicitly covered in national law.</p>
<p>ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</p>	<p>ESS5 requires Borrowers to avoid or minimize involuntary resettlement by exploring project design alternatives, avoid forced eviction, mitigate unavoidable adverse impacts from land acquisition or restrictions on land use through timely compensation for loss of assets at replacement cost and assisting displaced persons in their</p>	<p>Turkish legislation on land acquisition mainly fulfills the requirements stipulated by ESS5. However, some differences including the preparation of a Resettlement Plan or Ex-post Social Audit, compensation/assistance to renters, and other informal users of lands, who do not own property, replacement cost, request for the expropriation of unviable land due to partial expropriation (the gap is related to timing issue), scope</p>

E&S Standard	Relevance	Key Gaps
	<p>efforts to improve, or at least restore, livelihoods and living standards, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher, improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure, ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and informed participation.</p> <p>ESS5 may be relevant for the project in case of any land acquisition within the scope of irrigation investment activities.</p>	<p>of project affected people (such as being land-owner or informal user, public Information disclosure.</p> <p>A Resettlement Framework (RF) has been prepared for the project to address the potential land based social risks and impacts, particularly with regard to the subprojects' potential land take requirements. If needed, Resettlement Plan (RP) will be prepared and implemented for the project activities.</p>
<p>ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>ESS6 requires Borrowers to: protect and conserve biodiversity and habitats, apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity, support livelihoods of local communities, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.</p> <p>This ESS will be applicable specifically for the activities conducted in the naturally undisturbed areas such as pastures and grasslands.</p>	<p>There is no gap in terms of policy level. On the other hand, in some cases, the level of the considerations of not legally protected sensitive ecological areas, such as Key Biodiversity Areas (KBAs), in the national EIA process does not sustain the requirements stipulated by ESS6.</p> <p>Furthermore, management and monitoring of potential impacts, mitigation measures and residual impacts are not detailed in general.</p>
<p>ESS8 Cultural Heritage</p>	<p>ESS8 requires Borrowers to protect cultural heritage from the adverse impacts of project activities and support its preservation, address cultural heritage as an integral aspect of sustainable development, promote meaningful consultation with stakeholders regarding cultural heritage, promote the equitable sharing of benefits from the use of cultural heritage. The Chance Find Procedure is integrated into the ESMF and will be implemented to fulfill the ESS8 requirements.</p>	<p>There are no major gaps in between the ESS8 and national legislation with respect to the scope of the Project activities for physical cultural heritage. However, there is not any requirement in the national legislation related to intangible cultural heritage.</p>
<p>ESS10 Stakeholder Engagement and Information Disclosure</p>	<p>ESS10 is relevant for all projects given the need to engage with beneficiaries and stakeholders on development activities that affect their lives.</p>	<p>To ensure the compliance of the MoAF in management of grievances, organization of stakeholder engagement and consultation activities, and information disclosure processes in line with the ESS10, a number of improvements and actions are defined for the Project.</p>

<b>E&amp;S Standard</b>	<b>Relevance</b>	<b>Key Gaps</b>
	<p>This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice.</p> <p>Effective stakeholder engagement can improve the E&amp;S sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.</p> <p>This ESS ensures that the process of stakeholder engagement will involve the following: stakeholder identification and analysis; planning how the engagement with stakeholders will take place; disclosure of information; consultation with stakeholders; addressing and responding to grievances; and reporting to stakeholders.</p>	<p>As the ESS10 requires, the successful and effective stakeholder engagement practices will be emphasized throughout the lifecycle of the Project. The list of the Project stakeholders is prepared and ways to engage with each stakeholder group are specified.</p> <p>For the systematic implementation of the ESS10 standards, a Project-specific Stakeholder Engagement Plan is prepared. Additionally, the Project Grievance Mechanism is in place that the Project stakeholders can raise their concerns and grievances through various channels</p>



## 4. Potential Environmental and Social Risks and Standard Mitigation Measures

As it is stated in Section 3.3, the activities in **Table 3** will be carried out by MoAF during the project implementation and have potential E&S risks and impacts.

These potential E&S risks and impacts due to the Project activities, as well as standard mitigation measures that are expected to be applied are summarized in the table below. For each sub-project, the PCU will conduct the E&S Screening as per Annex-1. Based on the screening, the project level ESMP (Annex-2) will be customized for the sub-project to be implemented.

**Table 3: Key Environmental and Social Risks of the Project and Mitigation Measures**

Subcomponent Activity	Risks & Impacts	Mitigation Measures
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> <li>- Implementation of pasture restoration and improvements (Subcomponent 2.2), which will include some small construction work (water pounds; soil erosion barriers; etc.)</li> </ul>	<p>Inadequate management of environmental and social risks and impacts of the sub-project</p>	<ul style="list-style-type: none"> <li>- All permits including the EIA permit will be obtained prior to the start of construction works.</li> <li>- If it is required after screening (Annex 1), environmental and social consultants of PCU will customize a site-specific ESMP (Annex 2), and it will be implemented by the contractors. The site-specific ESMPs will be an attachment of the tender documents.</li> </ul>
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> <li>- Establishment of pasture improvements, which will include some small construction work (water pounds; soil erosion barriers; etc.) (Subcomponent 2.2)</li> </ul>	<p>Disturbance of air quality</p>	<ul style="list-style-type: none"> <li>- Where required, dust suppression methods will be applied in sufficient frequency.</li> <li>- Loading/unloading will be performed without scattering.</li> <li>- The stored excavation materials will be covered. Speed limit will be set in and around the sites.</li> <li>- The exhaust systems of the vehicles will be regularly controlled.</li> <li>- According to the Government of Türkiye’s climate change objectives and World Bank climate targets, Project activities which will be managed by MoAF will use the efficient technics and best practice climate-resilient design and building standards, heat insulating material etc.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Noise generation</p>	<ul style="list-style-type: none"> <li>- The machinery and equipment to be used will not be operated at the same point/location but homogeneously distributed in the site. This will enable noise level be at reasonable levels and not to exceed related limit values defined in the legislation.</li> <li>- Maintenance requirements of machinery and equipment will be checked and speed limitations will be defined for vehicles.</li> <li>- The noise during the installment works will be limited to the limited times defined in the relevant legislation.</li> <li>- Engine covers of generators; air compressors and other motorized mechanical equipment will be closed during activities and the equipment should be located as far away from sensitive areas as possible.</li> </ul>
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Soil and water pollution/contamination due to leaks/spillage and/or improper management of waste and wastewater</p>	<ul style="list-style-type: none"> <li>- Wastes and domestic wastewater will be stored and disposed in a controlled manner in accordance with the relevant regulations and in line with the management practices.</li> <li>- The wastes and wastewater to be generated in the sub-Project area will not interact with the soil environment and cause any impacts.</li> <li>- Wastes will be collected in closed containers suitable for the type of waste before the final disposal and stored in the temporary storage area to be established on the site. Waste containers will be labelled appropriately for storage purposes.</li> <li>- Wastes will only be temporarily stored on site and final disposal will be carried out outside the facility.</li> <li>- Waste recycling, transport and disposal will be carried out by means of licensed companies and/or related municipalities.</li> <li>- Existing toilets will be used by the workers during the installment works. If there is not any toilet close to the site (specifically for the irrigation channel works), the domestic wastewater generated at site will be collected in the leak-proof septic tanks to be constructed at the site, transferred from the site by sewage trucks and disposed to the sewage system of the Municipality.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Soil and water pollution/contamination due to leaks/spillage and/or improper management of hazardous materials</p>	<ul style="list-style-type: none"> <li>- All oil and fuel leakages caused by the machinery will be surrounded by absorbent to avoid any spread and collected with the soil contaminated. This contaminated soil will be stored in the hazardous waste collection area and disposed with the hazardous wastes.</li> <li>- Chemicals and hazardous materials will be stored in designated impermeable chemical and hazardous material storage areas.</li> <li>- Spill response material will be placed to the chemical and hazardous material storage areas and distributed to project vehicles in order for timely response.</li> <li>- Trainings for contractor staff will be conducted on spill response, safe chemical and hazardous material handling and storage.</li> </ul>
<ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Establishment of pasture improvements/subprojects (Subcomponent 2.2)</li> </ul>	<p>Soil, air and water pollution/contamination due to use of pesticide &amp; fertilizers</p>	<ul style="list-style-type: none"> <li>▪ Pest Management Plan (Annex 4) will be prepared in case of any pesticide use.</li> </ul> <p>Where feasible, the following alternatives to pesticides will be considered:</p> <ul style="list-style-type: none"> <li>▪ rotate crops to reduce the presence of pests and weeds in the soil ecosystem,</li> <li>▪ use pest-resistant crop varieties,</li> <li>▪ use mechanical weed control and/or thermal weeding,</li> <li>▪ support and use beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests,</li> <li>▪ protect natural enemies of pests by providing a favorable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators and by avoiding the use of broad-spectrum pesticides,</li> <li>▪ use animals to graze areas and manage plant coverage,</li> <li>▪ use mechanical controls such as manual removal, traps, barriers, light, and sound to kill, relocate, or repel pests.</li> </ul> <p>In case of pesticide use, following mitigation measures will be taken:</p> <ul style="list-style-type: none"> <li>▪ train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are not required.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"> <li data-bbox="1153 247 2027 335">▪ review and follow the manufacturer’s directions on maximum recommended dosage or treatment as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose,</li> <li data-bbox="1153 363 2027 451">▪ avoid routine “calendar-based” application, and apply pesticides only when needed and useful based on criteria such as field observations, weather data (e.g., appropriate temperature, low wind, etc.),</li> <li data-bbox="1153 480 2027 533">▪ avoid the use of highly hazardous pesticides, particularly by uncertified, untrained, or inadequately equipped users.</li> <li data-bbox="1153 561 2027 683">▪ use only pesticides that are manufactured under license and registered and approved by the appropriate authority and in accordance with the Food and Agriculture Organization’s (FAO) “International Code of Conduct on the Distribution and Use of Pesticides”</li> <li data-bbox="1153 711 2027 799">▪ select application technologies and practices designed to reduce unintentional drift or runoff only as indicated in an Integrated Pest Management (IPM) program, and under controlled conditions,</li> <li data-bbox="1153 828 2027 916">▪ maintain and calibrate pesticide application equipment in accordance with manufacturer’s recommendations. Use application equipment that is registered in the country of use,</li> <li data-bbox="1153 944 2027 997">▪ establish untreated buffer zones or strips along water sources, rivers, streams, ponds, lakes, and ditches to help protect water resources, and</li> <li data-bbox="1153 1026 2027 1078">▪ avoid use of pesticides that have been linked to localized environmental problems and threats.</li> <li data-bbox="1153 1107 2027 1197">▪ Contamination of soils, groundwater, or surface water resources, due to accidental spills during transfer, mixing, and storage of pesticides will be prevented by the hazardous materials storage and handling recommendations.</li> </ul> <p data-bbox="1108 1235 2027 1350">Grassland/Pasture Management Plan for nutrient management will be prepared in case of any synthetic fertilizer use in pasture subprojects to be funded by the Project. The nutrient management plan is to consider i) baseline nutrient and physical soil conditions, based on soil analysis, complemented with other tools to assess pasture conditions, ii) pasture requirements</p>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<p>based on grazing and recovering periods, expected animal carrier/ha; type of pasture species, etc.</p> <p>Where feasible, alternatives are to be considered to complement the need for fertilizer application in pasture rehabilitation &amp; improvements, those alternatives could include, for example (list is not exhaustive)</p> <ul style="list-style-type: none"> <li>- Natural regeneration approaches</li> <li>- Establishment of nature-based solutions, including silvopastoral systems,</li> <li>- Planting coverage crops</li> <li>- Creating a buffer zone around waterways and wetlands</li> </ul> <p>To prevent any environmental or health hazards, the misuse of fertilizers, including the following, will be avoided</p> <ul style="list-style-type: none"> <li>- Over or excessive use, that is, the application of one or more plant nutrients to the soil, foliage or water that would not reasonably be expected to produce a positive response in growth or composition for plants or crops growing in that soil, or to maintain soil health;</li> <li>- Underuse or no use, that is, the lack of incorporation of plant nutrients to replenish the soils, for the benefit of the next crop to be grown. This situation is particularly sensitive in soils where nutrient mining is a common process negatively impacting food production;</li> <li>- Improper or inappropriate use, such as the application of fertilizers to the soil surface when not appropriate, not suited to the soil type, soil properties or the landscape (such as erosion risk due to slope), crop requirement, or the prevailing weather and climatic conditions, or by unsuitable application methods, thus resulting in nutrient losses to the environment, including soil, water and air pollution;</li> <li>- Nutrient imbalance resulting from fertilizers composed of an incomplete or improperly balanced nutritional profile compared to what the target crop(s) in question requires for optimal growth and product quality;</li> <li>- The application, or cumulative application, of contaminants to the soil via fertilizers that might pose unacceptable risk to human, animal and soil health or the environment;</li> <li>- Improper storage or handling of fertilizers that results in degradation of chemical or physical properties, unsafe or unhealthy conditions for users, diversion to nonagricultural uses, theft, or harm to the environment; or</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"><li>- Fertilizer leaks or spills.</li></ul>
<p>Construction works:</p> <ul style="list-style-type: none"><li>- Assistance to agriculture and animal husbandry businesses for improvement of damaged infrastructure (Subcomponent 1.2)</li><li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li><li>- Installment of machine parks (Subcomponent 1.2)</li><li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li></ul>	Damage to cultural heritage in case of an archeological chance find	<ul style="list-style-type: none"><li>- Chance finds procedure (Annex 5) will be implemented during the project works.</li><li>- In this context, related Civilian Authority or Museum Directorate will be informed latest in three days in case of finding any movable or immovable cultural asset by chance during the Project works.</li><li>- Construction works will be stopped immediately.</li><li>- In case of a chance find, relevant stakeholders will be communicated.</li></ul>
<p>Construction works:</p> <ul style="list-style-type: none"><li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li><li>- Installment of machine parks (Subcomponent 1.2)</li><li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li></ul>	OHS risks and impact on workers' health and safety	<ul style="list-style-type: none"><li>- The contractor will sign an agreement with a joint health and safety unit (OSGB) or employ an OHS specialist in accordance with the OHS Law and legislation.</li><li>- Relevant OHS risk assessments and emergency response plans will be prepared and implemented by the contractor.</li><li>- The contractor will ensure that all the direct and contracted workers are provided with trainings on project requirement at the beginning of employment (individually or collectively).</li><li>- The relevant plans and procedures of the relevant Turkish legislation will be complied within the OHS measures and practices.</li><li>- Training will be given to employees according to the Regulation on the Procedures and Principles of Occupational Health and Safety Trainings. In this context, a training program will be prepared, training records will be kept and evaluation activities will be carried out after the trainings.</li><li>- Personal protective equipment will be provided to all employees and necessary training will be given for their use.</li><li>- Work areas will be equipped with warning signs (e.g., "Hazard", "Entry Prohibited", etc.) in accordance with the quality and potential risks of the work to be performed in that area.</li></ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"> <li>- All necessary precautions will be taken in the Project area to prevent possible fires from the Project activities. Uncontrolled fires in and out of the field will be prevented.</li> <li>- Drivers and operators will be trained to comply with traffic rules and to control the vehicles and equipment they use against risks and hazards originating from vehicle traffic. Required traffic signs will be placed in the Project site and its surroundings. Machine operators and other employees will be informed and alerted about the relevant signs.</li> <li>- Entry of staff and third parties into the working site will be carried out in a controlled manner from the doors at which authorized personnel will control.</li> <li>- In the event of any significant incident (e.g., environmental, social, labor or lost-time incidents) the contractor will immediately notify MoAF. Within 30 business days, an incident report including the root causes analysis of the incident, precautions and compensation measures taken will be presented to MoAF.</li> <li>- If asbestos or asbestos containing materials are found at a construction site during demolition of an existing structure, they will be clearly marked as hazardous waste. The asbestos will be appropriately contained and sealed to minimize exposure.</li> <li>- If a serious incident (fatality, lost time injury (3 or more days), incidents of forced or child labor) happens, the World Bank will be notified within 48 hours of becoming aware of such incident</li> </ul>
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Community health and safety risks</p>	<ul style="list-style-type: none"> <li>- The construction contractor will ensure that all the direct and contracted workers are provided with trainings on Project requirement at the beginning of employment (individually or collectively). These trainings will also cover the code of conduct for accommodation, general moral, cultural and ethical rules as well as rules relating with sexual exploitation and abuse/sexual harassment (SEA/SH) required from all project workers.</li> <li>- The construction contractor will analyze the accommodation options preferred/selected by non-local workers in collaboration with KOSKI and ensure that service buses are provided for the non-local workers accommodating in the nearby district and town centers in order to ensure safe travel of the Project workers to the Project site and minimize project-related traffic in the region.</li> <li>- The construction contractor and MoAF will ensure that the relevant aspects of EBRD/IFC's Guidance Note on Workers' Accommodation (2009) will apply to project-related on-site and off-site accommodation.</li> </ul>



Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"> <li>- The construction contractor and MoAF will ensure that necessary medical checks are in place at the time of hiring, which would be repeated as necessary. The contractor has medical screening reports for all personnel.</li> <li>- The construction contractor and MoAF will ensure that legally required basic occupational health and safety (OHS) trainings, covering the general and health related subjects (e.g., workplace hygiene and good housekeeping, principles for protection from sickness and protection techniques, biological and psychosocial risk factors), are provided to all direct and contracted employees at the time of hiring, which would be repeated as necessary.</li> <li>- The construction contractor and MoAF will closely monitor potential diseases among the project employees (direct and contracted) throughout the construction phase.</li> <li>- Potable and sanitary water will be supplied in line with the requirements of the national legislation.</li> <li>- Emergency Preparedness and Response Plan will be developed and implemented.</li> <li>- The Emergency Response Plans will be prepared including offsite emergency response methods.</li> <li>- Access to construction site will be permanently restricted to avoid potential health and safety risks (due to use of heavy vehicles, construction vehicles causing site traffic, earthworks, electrocution hazards due to electrical works, etc.)</li> <li>- The construction contractor will undertake official communication with the authorities to ensure collaboration to be able to apply necessary health and safety restrictions, in case such restrictions are applied within their jurisdiction areas.</li> <li>- Local communities will be informed about the construction site, traffic restrictions to be applied for health and safety purposes and also about the duration of such restrictions.</li> <li>- Private security officers from the local communities will be employed, where possible, to minimize the risk of potential social conflicts.</li> <li>- The construction contractor will provide trainings by the private security contractor to the security officers and ensure that these officers receive periodical trainings on adequate use of force and appropriate conduct towards the project employees and the local communities in line with the requirements of national legislation as well as WB’s ESF.</li> <li>- Grievance mechanism will be implemented to address any potential risk that may be related to the acts of the private security officers employed in the Project, where necessary.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Financial assistance to animal husbandry businesses for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Traffic and road-related risks from increased local traffic volume and movement of heavy-duty vehicles.</p>	<ul style="list-style-type: none"> <li>- Access to the site will be permanently restricted to avoid potential health and safety risks (due to use of heavy vehicles causing site traffic, electrocution hazards due to electrical works, etc.)</li> <li>- The road closure will be avoided all the time.</li> <li>- The contractor will verify the suitability of all drivers and vehicles by checking their documents (driver license, heavy vehicle usage certificate, heavy vehicle usage certificates, heavy vehicle regular maintenance documents).</li> <li>- The contractor will inform and train all drivers about speed limits, obligations to comply with speed limits, schools on the roads to be used, urban transportation roads, etc. will provide training/toolbox on sensitive points and record them.</li> <li>- Speed limit will be set in and around the sites.</li> <li>- The exhaust systems of the vehicles will be regularly controlled.</li> <li>- The contractor will undertake official communication with the authorities to ensure collaboration to be able to apply necessary health and safety restrictions, in case such restrictions are applied within their jurisdiction areas.</li> <li>- Local communities will be informed about the site, traffic restrictions to be applied for health and safety purposes and also about the duration of such restrictions.</li> </ul>
<p>Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</p>	<p>Potential impacts on biodiversity</p>	<ul style="list-style-type: none"> <li>- Channel route in or close to the nature reserves or species conservation areas will be avoided during planning, where possible. If the route cannot be changed, necessary mitigation measures will be determined in a site-specific ESMP and taken to avoid any significant impact.</li> <li>- Vegetation cover will be protected as much as possible.</li> <li>- Topsoil will be stripped and stored to designated area.</li> <li>- Topsoil will not be mixed with subsoil.</li> <li>- It will be ensured that equipment and vehicles do not disturb present habitat.</li> <li>- It will be ensured that there is no waste on bare ground left by workers.</li> <li>- It will be ensured that proper reinstatement and landscaping is implemented.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
All subcomponent activities	Labor related risks	<ul style="list-style-type: none"> <li>- LMP will be implemented during the Project works.</li> <li>- MoAF/contractor will provide workers with documented information which is clear and understandable, regarding their rights under national labor law; including collective agreements, their rights related to hours of work, wages, overtime, compensation, and benefits as of startup of working relationship and when any material changes occur.</li> <li>- MoAF /Contractor will not discourage workers from electing worker representatives, forming or joining workers’ organizations of their choosing, or from bargaining collectively, and will not discriminate or retaliate against workers who participate, or seek to participate, in such organizations and collective bargaining.</li> <li>- MoAF/Contractor will pay particular concern to principles of non-discrimination and equal opportunity. In this respect, MoAF/Contractor will not make employment decisions (i.e., recruitment and hiring, compensation, wages and benefits, working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices) on the basis of personal characteristics unrelated to job requirements. Wages, work hours and other benefits will be per the Turkish Labor Law.</li> <li>- MoAF/Contractor will ensure that the relevant aspects of Labor Law will apply to project-related on-site and off-site accommodation.</li> <li>- The contractor will provide a grievance mechanism for workers to raise workplace concerns in parallel with the MoAF grievance mechanism. The contractor will inform the workers about the grievance mechanism at the time of recruitment and make it easily accessible to them.</li> <li>- Provision of PPEs, the training of employees, the precautions for using equipment, and the implementation of OHS measures and requirements are the responsibility of the contractor and the relevant contracts include the responsibilities of complying with OHS and laws and regulations.</li> <li>- MoAF/Contractor will ensure measures to prevent child labor and forced labor by routine controls of employment lists. In this respect, children under 18 years of age will not be employed.</li> <li>- Workers will be trained about following topics at minimum; <ul style="list-style-type: none"> <li>▪ Gender discrimination</li> <li>▪ Sexual harassment</li> </ul> </li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"> <li>▪ Child labour</li> <li>▪ Forced labour</li> <li>- Contractors will not employ workers under the age of 18 in accordance with international and national laws at all stages of the project.</li> <li>- The principles regarding the prevention of child labour, the Project principles and all measures and requirements included in the policy documents will be stated in their contracts as principles for which subcontractors, service providers and suppliers are also responsible and will be deemed to have been accepted. All these groups cannot employ child labor in any activity carried out within the scope of the Project.</li> <li>- The principles regarding the prevention of forced labor, the Project principles and all measures and requirements included in the policy documents will be stated in their contracts as principles for which contractors are also responsible and will be deemed to have been accepted.</li> <li>- MoAF GM including anonymous grievance mechanism for workers will be informed.</li> </ul>
All subcomponent activities	GBV and SEA/SH risks	<ul style="list-style-type: none"> <li>- Trainings will be provided to workers to raise awareness and sensitivity, for workers who will work temporarily in the field, on the prevention of gender-based violence. These trainings will be included in the OHS training plan and/or toolboxes.</li> <li>- Throughout the project, grievances will be managed in accordance with the procedure through the grievance mechanism already established and operating.</li> <li>- Written or printed material related to the Project or grievance mechanism communication channels provide a support for immigrant and refugee vulnerable groups and women which provide accessible, culturally appropriate and easy to understand (non-technical) language option.</li> </ul>
<p>Construction works:</p> <ul style="list-style-type: none"> <li>- Rehabilitation of damaged irrigation channels (Subcomponent 1.1)</li> <li>- Installment of machine parks (Subcomponent 1.2)</li> <li>- Grants and cash assistance to producers for improvement of damaged farm infrastructure and acquisition of equipment (Subcomponent 2.1)</li> </ul>	<p>Unsuccessful or inadequate stakeholder involvement to the project</p>	<ul style="list-style-type: none"> <li>- All Project employees will be provided with trainings on non-discrimination and gender-based violence such as sexual harassment by the contractor.</li> <li>- The grievance mechanism including additional support tools for vulnerable groups will be explained.</li> <li>- In order to get information about the local people and sensitive groups and to make the necessary consultations on time, regular briefings will be made with the neighborhood/village headmen, and communication continuity will be ensured for the necessary situations regarding the project.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
		<ul style="list-style-type: none"> <li>- To include the views of vulnerable groups: <ul style="list-style-type: none"> <li>▪ Engagements will be carried out with regional organizations and NGOs representing the rights of persons with disabilities;</li> <li>▪ Separate consultations will be conducted for elderly individuals and disabled individuals (or people with additional accessibility needs), immigrants, refugees and non-native Turkish speakers, and other disadvantaged/vulnerable groups who may be identified during the project;</li> <li>▪ Information on the project will be provided face to face or by any other appropriate method specific to disadvantaged/vulnerable groups/individuals to be specified or specified (e.g. visually impaired alphabet, sign language, etc.);</li> <li>▪ Consultations will be conducted at locations that provide access to disadvantaged/vulnerable groups/individuals; and</li> <li>▪ Any written or printed materials related to the project to be distributed at project sites should be accessible to the disadvantaged/vulnerable groups/individuals of the project; the materials will also be prepared in culturally appropriate and easy to understand (non-technical) language.</li> </ul> </li>   <li>- The implementation of the relevant measures specified in the project stakeholder engagement plan and grievance mechanism procedure will be coordinated and controlled by PCU/GDs.</li>   <li>- Stakeholder engagement activities will include measures to ensure the meaningful participation of poor and vulnerable groups such as women, refugees, youth, the elderly, and female-headed households.</li>   <li>- The stakeholder engagement activities will be shared with the World Bank semi-annually in monitoring reports.</li>   <li>- Throughout the Project, Project grievances will be managed in accordance with the procedure through the grievance mechanism already established and operating. PCU will submit monitoring reports to the WB based on the grievance mechanism records.</li> </ul>

Subcomponent Activity	Risks & Impacts	Mitigation Measures
All subcomponent activities	Exclusion of disadvantaged and vulnerable households.	<ul style="list-style-type: none"> <li>- In identifying subproject activities and beneficiaries, inclusive and accessible consultations will be conducted with community members, community leaders and representatives, and local authorities.</li> <li>- Transparent information will be provided on project activities, benefits, and eligibility criteria to communities, through accessible channels, trusted intermediaries, and in relevant ethnic languages.</li> <li>- Disadvantaged and vulnerable groups and households will proactively be identified, consulted with, and reached out to.</li> <li>- It will be ensured that the grievance/beneficiary feedback mechanism is accessible by disadvantaged and vulnerable groups through raising awareness among these groups and in relevant ethnic languages, providing different intake channels, etc.</li> </ul>
Rehabilitation of damaged irrigation channels (Subcomponent 1.1)	Land acquisition impacts	<ul style="list-style-type: none"> <li>- A resettlement plan (RP) will be prepared by the contractor in case of any land acquisition required in accordance with the RF of the project to identify the risks and necessary mitigation measures to be applied specifically to the sub-project and RP will be implemented before the construction works.</li> <li>- Any involuntary resettlement, displacement or loss of livelihood will be tried to be avoided and excluded during the planning works.</li> <li>- WB ESS5 will be followed in addition to relevant Turkish legislation as necessary.</li> </ul>
- Installment of machine parks (Subcomponent 1.2)	Land compaction leading to erosion	<ul style="list-style-type: none"> <li>- In identifying the machinery park to be acquired with project funds, criteria are to be included on the appropriateness of the machinery to the soil conditions, type of crops, and weather patterns, among other relevant parameters. Approaches to mechanization focusing on soil protection and conservation will complement investments on machinery. Guides for the sustainable management of soils in the targeted areas where the machinery banks are to be located, are to be prepared and used to support training and education.</li> </ul>
- Implementation of pasture subprojects (Subcomponent 2.2)	Risks of introducing species with little local adaptation potential and/or invasive character	<ul style="list-style-type: none"> <li>- The range of species to be selected are to be determined by a consultative technical board made of technical experts from the Ministry of Agriculture and Forestry, relevant universities national and regional, and well-known think-thanks and scientific bodies conducting research on sustainable pasture/grassland management. The Ministry of Environment is to be invited to join as well.</li> </ul>

#### 4.1. Risks and Mitigation Measures Specific to Disadvantaged and Vulnerable Groups

It is of particular importance to understand whether project disproportionately affect disadvantaged/vulnerable individuals or groups who are often unable to raise their concerns or understand the impacts of a project. Awareness raising and stakeholder engagement activities regarding the project should be implemented taking into account the special constraints and cultural sensitivities of these groups and individuals so that they fully understand the project activities and benefits. Interaction with vulnerable groups and individuals often requires special measures and assistance to ensure that these groups and individuals are well aware of the overall process and their contribution to the process is in balance with other stakeholders and focused on establishing their participation.

Within the scope of this Project, vulnerable individuals and groups are woman farmers, elderly farmers, illiterate farmers, tenant farmers, illiterate workers, seasonal agricultural workers including migrants, persons with disabilities. Special attention will be given to incorporate the views of disadvantaged/vulnerable groups/individuals and make them to fully benefit from the opportunities of the subprojects. To achieve these the following engagement methods will be considered;

- **The woman farmers** will be encouraged to participate consultation meetings. If necessary, special focus group discussions will be organized. Besides, additional trainings will be given to the woman farmers to ensure that they are aware about the process to access financial instruments/grants—as needed.
- For **the illiterate individuals (farmers, workers, etc.)**, the design of the services and activities will consider the needs of the illiterate stakeholders to ensure that they have access to the same information with the literate stakeholders. Their engagement to stakeholder activities will be encouraged, communication materials (infographics, videos, etc.) developed specific for their needs will be made available throughout the project implementation, necessary support will be provided by the provincial directorates/organizations to ensure that they have equal opportunities to complete their grant applications and to access the GM.
- For **the persons with disabilities**, depending on their needs, audio devices, accessible platforms, and any other special trainings will be provided during the project implementation.
- The project documents, brochures, announcements will be accessible in Turkish; however, for **the migrant workers** (including seasonal agricultural workers) and non-Turkish speakers, different languages will also be taken into consideration, to increase the efficiency of the engagement activities and ensure their involvement.
- For **the elderly farmers**, considering their lack of knowledge and inexperience about accessibility, online tools, services and communication channels, the support need will be provided throughout the project implementation to ensure their involvement to the project and participation to the project activities.

Subproject specific SEPs will be prepared where required and implemented considering disadvantaged/vulnerable groups and gender aspects.

## 4.2. Planning and Design Considerations for Avoidance of Environmental and Social Risks and Impacts

Some of the potential E&S risks and impacts anticipated from the sub-project activities of the project can be effectively avoided or minimized at the early stages of planning and design by considering following actions.

- Obtainment of all necessary permits
- E&S screening and preparation of site-specific ESMP and other E&S documents
- Conduct effective stakeholder engagement activities with all relevant stakeholders including disadvantaged and vulnerable groups
- Avoidance of selecting sites in and around nature reserves or species conservation areas
- Trying to exclude and propose alternatives in case of any involuntary resettlement, displacement or loss of livelihood
- Preparation emergency plans prior to the project works
- Providing trainings and awareness activities to all relevant stakeholders and project workers

The detailed mitigation measures to be taken during the planning and design process are included in Table 3 to avoid any significant E&S risk.



## 5. Procedures and Implementation Arrangements

### 5.1. Environmental and Social Risk Management Procedures

The E&S risk management procedures will be implemented by PCU through the Project’s subproject selection process. In summary, the procedures aim to do the following (Table 4).

**Table 4:** Project Cycle and E&S Management Procedures

Project Stage	E&S Stage	E&S Management Procedures
a. Assessment & Analysis: Subproject identification	Screening	<ul style="list-style-type: none"> <li>- During subproject identification, ensure subproject eligibility by referring to the Exclusion List in Table 5 below.</li> <li>- For all activities, Screening Form in Annex 1 will be used to identify and assess potential E&amp;S impacts, and identify the appropriate mitigation measures for the subproject.</li> <li>- Identify the documentation, permits, and clearances required under the government’s relevant national legislation.</li> <li>- Submit the completed Screening Forms for all sub-projects to the World Bank for review and approval.</li> </ul>
b. Formulation & Planning: Planning for subproject activities, including human and budgetary resources and monitoring measures.	Planning	<ul style="list-style-type: none"> <li>- Based on Screening Form adopt and/or prepare relevant E&amp;S assessment tools and plans.</li> <li>- For activities requiring ESMPs, prepare site-specific ESMPs and submit the first 5 ESMPs for prior review and no objection by the World Bank.</li> <li>- Ensure that the ESMPs are shared with relevant stakeholders in an accessible manner and consultations are held with the affected communities in accordance with the SEP.</li> <li>- Complete all documentation, permits, and clearances required under the government’s relevant national legislation.</li> <li>- Train staff responsible for implementation and monitoring of E&amp;S tools.</li> <li>- Incorporate relevant environmental and social procedures and plans into contractor tender documents; train contractors on relevant procedures and plans.</li> </ul>
c. Implementation & Monitoring: Implementation support and continuous monitoring for projects.	Implementation	<ul style="list-style-type: none"> <li>- Ensure implementation of plans through site visits, regular reporting from the field and other planned monitoring.</li> <li>- Track grievances/beneficiary feedback.</li> <li>- Continue awareness raising and/or training for relevant staff, volunteers, contractors, communities.</li> <li>- Prepare Semi-Annual E&amp;S Progress Report and share with the WB.</li> </ul>
d. Review & Evaluation: Qualitative, quantitative and/or participatory data collection on a sample basis.	Completion	<ul style="list-style-type: none"> <li>- Assess whether plans have been effectively implemented.</li> <li>- Ensure that physical sites are properly restored.</li> </ul>

More detail for each stage is provided below.

a. Subproject Assessment and Analysis – E&S Screening

As a first step, all proposed activities should be screened to ensure that they are within the boundaries of the Project’s eligible activities, and they are not considered as activities listed on the E&S Exclusion List in the table below.

**Table 5:** Exclusion List<sup>5</sup>

<ul style="list-style-type: none"> <li>• Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB, wildlife or products regulated under CITES.</li> <li>• Production or trade in weapons and munitions. *</li> <li>• Production or trade in alcoholic beverages*</li> <li>• Production or trade in tobacco. *</li> <li>• Gambling, casinos and equivalent enterprises. *</li> <li>• Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.</li> <li>• Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.</li> <li>• Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.</li> <li>• Production or activities involving harmful or exploitative forms of forced labor**/harmful child labor. ***</li> <li>• Production or trade in wood or other forestry products other than from sustainably managed forests.</li> <li>• Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.</li> <li>• Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.</li> <li>• Substantial and high E&amp;S risk projects</li> <li>• Projects which have significant adverse impact on cultural heritage and biodiversity.</li> </ul>
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As a second step, E&S Screening Form in Annex 1 will be used by the E&S specialists under PCU in close coordination with the relevant GDs to identify and assess relevant E&S risks specific to the activities, and identify the appropriate mitigation measures. The *Screening Form* lists the various mitigation measures and plans that may be relevant for the specific activities (such as ESMP, LMP, RP, Chance Find Procedures etc.).

The PCU and GDs will also identify the documentation, permits, and clearances required under the government’s relevant national legislation.

b. Subproject Formulation and Planning – E&S Planning

Based on the process above and the Screening Form, the GDs will adopt the necessary environmental and social management measures already included in the annexes of this ESMF and project’s framework E&S documentation (such as LMP, RF etc.).

If site-specific ESMPs are necessary, environmental and social consultants of PCU will prepare ESMPs and other applicable documents as needed. The site-specific ESMPs will be an attachment of the

<sup>5</sup> Notes:

\* This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

\*\* Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

\*\*\* Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

tender documents. The relevant GDs in coordination with PCU will provide approval and compile ESMPs and other applicable forms. The contents of the ESMPs will be shared with relevant stakeholders in an accessible manner, and consultations will be held with the affected communities on the environmental and social risks and mitigation measures. If certain subprojects or contracts are being initiated at the same time or within a certain location, an overall ESMP covering multiple subprojects or contracts can be prepared. Some moderate risk subprojects may also benefit from the preparation of a site-specific environmental and social assessment prior to the preparation of an ESMP.

The first five ESMPs will also be submitted to WB for prior review and no objection. After this ESMPs, WB and the GDs will reassess whether prior review is needed for further ESMPs or a certain category of ESMPs (for example, for activities exceeding a certain budget, for certain types of activities).

The GDs will also complete the documentation, permits and clearances required under the government's relevant national legislation before any project activities begin.

At this stage, staff who will be working on the various subproject activities should be trained in the environmental and social management plans relevant to the activities they work on. The GDs in coordination with the PCU should provide such training to field staff.

The GDs should also ensure that all selected contractors, subcontractors, and vendors understand and incorporate environmental and social mitigation measures relevant to them as standard operating procedures for civil works. The GDs in coordination with the PCU should provide training to selected contractors to ensure that they understand and incorporate environmental and social mitigation measures; and plan for cascading training to be delivered by contractors to subcontractors and vendors. The GDs should further ensure that the entities or communities responsible for ongoing operation and maintenance of the investment have received training on operations stage environmental and social management measures as applicable.

#### *c. Implementation and Monitoring – E&S Implementation*

During implementation, the GDs will conduct regular monitoring visits. Supervision of the site activities will be done by the provincial and district directorates of MoAF. If there are contractors implementing subproject activities, the contractors will be responsible for implementing the mitigation measures in the E&S risk management documents, with the GDs oversight.

The GDs working to implement the project will ensure that monitoring practices include the environmental and social risks identified in the ESMF and will monitor the implementation of E&S risk management mitigation plans as part of regular project monitoring.

At a minimum, the reporting will include (i) the overall implementation of E&S risk management instruments and measures, (ii) any environmental or social issues arising as a result of project activities and how these issues will be remedied or mitigated, including timelines, (iii) Occupational Health and Safety performance (including incidents and accidents), (iv) community health and safety, (v) stakeholder engagement updates, in line with the SEP, (vi) public notification and communications, (vii) progress on the implementation and completion of project works, and (viii) summary of grievances/beneficiary feedback received, actions taken, and complaints closed out, in line with the SEP. Reports from the local levels will be submitted to the E&S specialists under PCU at the national level, where they will be aggregated and submitted to WB on a biannual basis.

Throughout the Project implementation stage, the GDs in close coordination with the PCU will continue to provide training and awareness raising to relevant stakeholders, such as staff, selected

contractors, and communities, to support the implementation of the environmental and social risk management mitigation measures. An initial list of training needs is proposed below, in Section 6.3.

The GDs will also track grievances/beneficiary feedback (in line with the SEP) during project implementation to use as a monitoring tool for implementation of project activities and environmental and social mitigation measures.

Last, if the PCU or GDs becomes aware of a serious incident, which may have significant adverse effects on the environment, the affected communities, the public or workers, in connection with the project, which may have significant adverse effects on the environment, the affected communities, the public, or workers, it should notify WB within 48 hours of becoming aware of such incident.

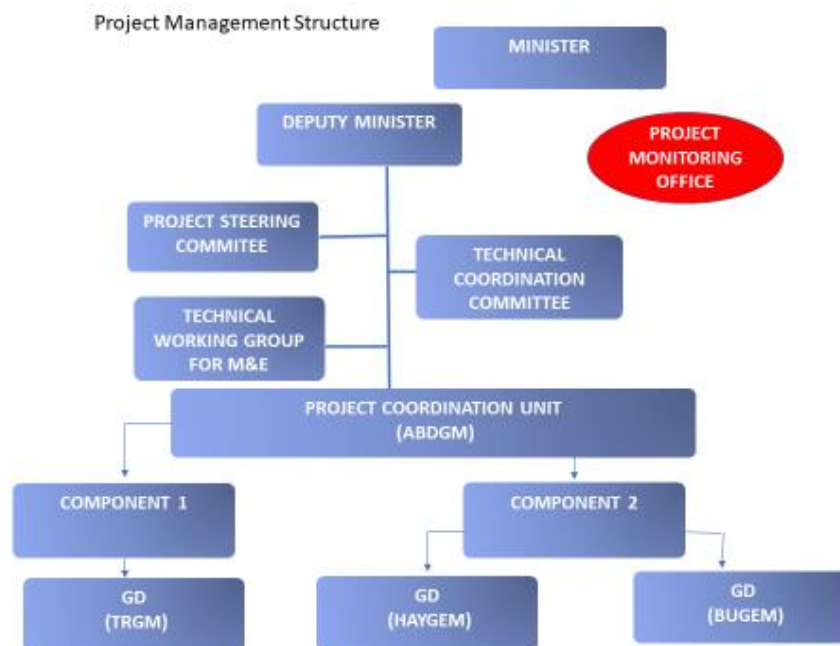
*d. Review and Evaluation – E&S Completion*

Upon completion of Project activities, the PCU in close coordination with the GDs will review and evaluate progress and completion of project activities and all required environmental and social mitigation measures. Especially for civil works, the GDs will monitor activities with regard to site restoration and landscaping in the affected areas to ensure that the activities are done to an appropriate and acceptable standard before closing the contracts, in accordance with measures identified in the ESMPs and other plans. The sites must be restored to at least the same condition and standard that existed prior to commencement of works. Any pending issues must be resolved before a subproject is considered fully completed.

5.2. Implementation Arrangements

This chapter describes the institutional arrangements for the ESMF aspects of the full project management and implementation.

Responsibility for overall project implementation, including management and coordination will lie with the MoAF, through the implementing units. Relationship between PCU and GDs is shown in the below.



**Figure 3: Proposed Implementation Structure of the Project**

**The Implementing General Directorates (GDs)** will be responsible for specific subcomponents, including overseeing project activities under their respective subcomponents and ensure effective engagement with MoAF's units and relevant stakeholders at the provincial level.

**A Project Coordinating Unit (PCU)** responsible for overall project coordination will be established under ABDGM. The PCU will be responsible for overseeing overall implementation and management of the project, ensuring proper application of all project-related requirements, and preparing all project documents to be submitted to the Bank. The PCU will host a dedicated multidisciplinary team of project management, technical, financial management, procurement, environmental, and social specialists with qualifications satisfactory to the WB. PCU's functions will be overseen by the leading Deputy Minister. One environmental specialist and one social specialist will assist in managing and implementing the environmental and social issues associated with this project. The E&S specialists will be employed under the PCU and responsible for the overall compliance of the proposed Project with the ESF requirements. These specialists will provide support across subcomponents closely working with the implementing General Directorates. These specialists will be available at the beginning of the proposed Project and will remain their positions throughout the project implementation. Furthermore, 1 environmental and 1 social focal point are to be appointed at each of the GDs (TRGM, HAYGEM and BUGEM) to support E&S aspects of the project. These focal point positions will remain throughout the project implementation.

**A Project Steering Committee (PSC)** will be established to ensure effective coordination at a higher level and provide strategic advice. The PSC will have participation of senior leadership of MoAF, including Deputy General Directors from the relevant GDs, Head of Strategy Development Directorate, Head of Budget Department and PCU Coordinator. Senior officials of the Ministry of Treasury and Finance and Presidency's Strategy and Budget Office will be invited to join specific sessions, based on project needs. The PSC will be chaired by the line Deputy Minister of the MoAF with the PCU acting as the Secretariat. The key functions of the PSC will be to review the Annual Workplans and Budgets, monitor implementation progress, ensure effective institutional coordination, and provide guidance as needed for ensuring the delivery of project outputs and achievement of project outcomes.

MoAF will assign focal points from among their own personnel of the respective GDs, at provincial level, to work closely with the environmental and social specialists at the central level, to coordinate ESMF, RF, LMP, and SEP implementation and consolidate their reporting compliance.

The project implementing General Directorates (TRGM, BÜGEM, and HAYGEM) at the central organization of MoAF, will be responsible for the execution of project activities under their respective subcomponents in coordination with the related Provincial Organizations. Considering the magnitude of the environmental and social impacts and risks of the project activities, one environmental specialist and one social specialist under the PCU will support these GDs of this project.

Contractors and service providers will be required to comply with the Project's E&S risk management plans and procedures, including ESMF, ESMPs, LMP, RF and national legislation. This provision will be specified in the contractor's agreements. Contractors will be expected to disseminate and create awareness within their workforce of E&S risk management compliance for their effective implementation.

The table below summarizes the roles and responsibilities regarding the implementation arrangements for E&S management.

**Table 6: Implementation Arrangements**

<b>Level / Responsible Party</b>	<b>Roles and Responsibilities</b>
PCU (through its E&S specialists)	<ul style="list-style-type: none"> <li>• Undertaking the environmental and social screening process for the subcomponent activities regarding E&amp;S risk categorization according ESMF.</li> <li>• Establishing an E&amp;S Team and organizing training of E&amp;S Team regarding World Banks E&amp;S assessment standards and procedures, consultation, and disclosure requirements.</li> <li>• Preparing Semi-Annual E&amp;S Progress Report and sharing with the WB.</li> <li>• Preparing site-specific E&amp;S documents if required after the screening process: ESMPs, SEPs, RPs, LMPs, etc.</li> <li>• Technically supporting and supervising implementing GDs in their E&amp;S documents.</li> <li>• Providing final approval of the E&amp;S documents as per WB’s ESSs requirements.</li> <li>• Ensuring that project investments under the subcomponents such as grant programs and related agreements with beneficiaries and service providers; infrastructure work; and any other investments include agreements to implement project specific ESMPs in line with this ESMF and any other ESSs requirements.</li> <li>• Establishing and ensure effective implementation of the grievance mechanism and coordinate with the implementing GDs.</li> <li>• Ensuring that subproject (matching-grants programs, pilot programs and infrastructure investments, etc.) specific LMPs, RPs and SEPs are implemented in line with the RF, SEP and LMP documents that are prepared along with this ESMF.</li> <li>• Working together with the implementing GDs and prepare implementation reports and report to the WB on a regular basis regarding implementation of the ESMP and associated instruments (SEP, RF, LMP, etc.).</li> </ul>
Implementing General Directorates (GDs)	<ul style="list-style-type: none"> <li>• Preparing TORs with the supervision and technical support of the PCU and submit the tors to the PCU for final approval.</li> <li>• Ensuring compliance with the site-specific E&amp;S documents, including SEP-related activities for grand-funding programs.</li> <li>• Incorporating the relevant environmental and social procedures and plans into contractor tender documents.</li> <li>• Reporting to the PCU as per implementation of ESMPs, SEP, LMPs, RPs quarterly during construction stage and semi-annually during the implementation/operation stage.</li> <li>• Reporting to the PCU on records of chance finds, OHS accidents, received grievances, consultations.</li> <li>• Performing regular supervision of the implementation of ESMF, RF, site-specific E&amp;S documents and any other ESSs requirements by their respective provincial organizations.</li> <li>• Documenting performance, recommendations and any further actions required as part of overall project supervision reporting to the WB.</li> <li>• Carrying out monitoring and evaluation (M&amp;E) regarding the environmental and social issues at the sites through the data collected from the site visits.</li> <li>• Train the regional staff (staff at provincial and district directorates), supervision consultants and local contractors on relevant World Bank</li> </ul>

Level / Responsible Party	Roles and Responsibilities
	requirements including E&S mitigation measures, roles and responsibilities, with support of PCU E&S specialists.
Regional / local MoAF staff (Provincial and District Directorates)	<ul style="list-style-type: none"> <li>Overseeing daily implementation and monitoring of E&amp;S mitigation measures, and report progress and performance to the implementing GDs monthly.</li> <li>Providing information to supervision consultants, local contractors and communities on relevant World Bank requirements including E&amp;S mitigation measures, roles and responsibilities.</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>Comply with the Project’s E&amp;S mitigation measures, as well as national legislation.</li> <li>Taking all necessary measures to protect the health and safety of workers and community members, and avoid, minimize or mitigate any environmental harm resulting from project activities, including undertaking mitigation measures if so directed.</li> <li>Reporting E&amp;S performance to supervision consultants and/or regional directorates of MoAF monthly.</li> <li>Ensuring that construction-related grievances are received and addressed to the supervision consultants.</li> <li>Immediately notifying the implementing General Directorates through supervision consultants about any serious incident which may have significant adverse effects on the environment, the affected communities, the public or workers.</li> </ul>
Supervision Consultant (if any)	<ul style="list-style-type: none"> <li>Overseeing daily implementation and monitoring of environmental, social and health and safety mitigation measures, and report progress and ESHS performance of the sub-projects to the implementing General Directorates monthly.</li> <li>Providing training to contractors and communities on relevant environmental, and social mitigation measures and OHS issues, roles and responsibilities.</li> <li>Ensuring that contractors comply with the sub-project’s environmental and social risk management plans and procedures, as well as national legislation.</li> <li>Monitoring/assessing that the Contractor’s E&amp;S implementations on site follow E&amp;S risk management instruments prepared for the sub-projects.</li> <li>Implementing SEP on-site with the implementing General Directorates</li> <li>Giving feedback and notice to the implementing General Directorates.</li> <li>Immediately notifying the implementing General Directorates about any serious incident which may have significant adverse effects on the environment, the affected communities, the public or workers.</li> </ul>

### 5.3. Proposed Training and Capacity Building

Successful implementation of the Project will depend among others on the effective implementation of the E&S risk management measures outlined in this ESMF. Training and capacity building will be necessary for the key stakeholders in order to ensure effective implementation ESMF, ESMPs and SEP. An initial training approach is outlined in the table below. To the extent possible, training on E&S risk management will be integrated into the project cycle and operational procedures. Given the need to raise awareness among project workers and stakeholders at many levels, a cascading model is proposed where information will follow from the national level to the field levels.

**Table 7: Proposed Training and Capacity Building Approach**

Level	Responsible Party	Audience	Topics / Themes that may be covered
<b>National Level</b>	MoAF	MoAF staff (consultants and civil servants) responsible for overall implementation of ESMF (E&S specialists of the PCU)	<p>ESMF and approach:</p> <ul style="list-style-type: none"> <li>- Identification and assessment of E&amp;S risks</li> <li>- Selection and application of relevant E&amp;S risk management measures/instruments</li> <li>- E&amp;S monitoring and reporting</li> <li>- Incident and accident reporting</li> <li>- Application of LMP, including Code of Conduct, incident reporting, GBV and SEA/SH</li> <li>- Application of SEP and the grievance/beneficiary feedback mechanism</li> </ul>
<b>Regional Level</b>	E&S specialists of the PCI and implementing General Directorates	Regional Staff (provincial) Local staff (district) Supervision consultants Contractors	<p>ESMF and approach:</p> <ul style="list-style-type: none"> <li>- Identification and assessment of E&amp;S risks including OHS and emergency preparedness</li> <li>- Selection and application of relevant E&amp;S risk management measures</li> <li>- E&amp;S monitoring and reporting</li> <li>- Incident and accident reporting</li> <li>- Application of LMP, including Code of Conduct, incident reporting, GBV and SEA/SH</li> <li>- Application of SEP and the grievance/beneficiary feedback mechanism</li> <li>- OHS and community health and safety issues</li> </ul>
<b>Local/site level</b>	Regional Staff	Local Staff Local Contractors Supervision Consultants	<ul style="list-style-type: none"> <li>- Application of ESMF requirements</li> <li>- E&amp;S monitoring and reporting</li> <li>- Incident and accident reporting</li> <li>- Application of SEP and the grievance/beneficiary feedback mechanism</li> <li>- Application of LMP, including Code of Conduct, incident reporting, GBV and SEA/SH</li> <li>- Application of SEP and the grievance/beneficiary feedback mechanism</li> <li>- OHS and community health and safety issues</li> </ul>
<b>Community Level</b>	Local staff	Community members	<ul style="list-style-type: none"> <li>- Basic OHS measures and Personal Protective Equipment</li> <li>- Community health and safety issues</li> <li>- Worker Code of Conduct</li> <li>- GBV and SEA/SH issues, prevention, measures</li> </ul>



Level	Responsible Party	Audience	Topics / Themes that may be covered
			- Grievance redress - Workers' grievance redress

#### 5.4. Estimated Budget

The project budget allows for the resources needed to ensure that project implementation is in line with the ESMF requirements. The following are estimated cost items for the implementation for the ESMF, which have been included in the overall project budget.

**Table 8:** ESMF Implementation Budget

Budget Categories	Estimated Cost (USD)
I. Establishment of ESF Team	
One Environmental Specialist	182,000
One Social Specialist	182,000
One Communication Specialist	182,000
Subtotal	546,000
II. Training and Capacity Building	
1. Specific Technical Support	100,000
2. Professional Training Programs	1,170,000
3. Information Dissemination	150,000
4. Grievance and Redress Mechanism	3,000
Total ESMF Implementation Budget	1,969,000

## 6. Stakeholder Engagement, Disclosure, and Consultations

A separate SEP has been prepared for the Project, based on WB's ESS10 on Stakeholder Engagement. This ESMF, as well as SEP and ESCP that have been prepared for this Project, have been disclosed in draft version for stakeholder consultations. The documents can be found here: <https://tarimorman.gov.tr/>.

Following the disclosure of the draft documents, PCU conducted a virtual meeting with participants representing various Project stakeholders.

Opening speech has been delivered by Head of Department, ABDGM for MoAF (PCU). She has made a presentation informing about the Project's objective, its components, proposed activities, potential E&S impacts, suggested mitigation measures, and details about the framework E&S plans.

Following the informative presentation, ES documents were presented and detailed information about E&S documents and its functioning was provided by E&S expert, who was hired to prepare E&S documents.

The Project Coordinator moderated the meeting, After the presentations, participants were invited to ask questions and provide comments during the question and answer session. All questions of the participants were received and answered one by one.

Details of the meeting including the list of the participants, attendance sheet and Minutes of Meeting has been provided in SEP of the Project.

The SEP document and this ESMF has been updated based on the outcomes of the meeting and republished on the above mentioned MoAF website. Moving forward, the SEP will be reviewed and updated periodically as needed. Significant changes to project-related activities and programs will be reflected in the SEP, and the updated version will be announced.

SEP of the Project was developed during the preliminary phase of the Project which defines the principles for stakeholder engagement: openness and life-cycle approach, informed participation and feedback, inclusiveness and sensitivity and flexibility.

According to ESS 10, the project stakeholders are categorized under three groups including project-affected parties (PAPs), other interested parties (OIPs) and vulnerable/disadvantaged individuals/groups. The indicative stakeholder list given in Table 1 of SEP has been prepared indicatively and these stakeholder groups will be updated and detailed as needed, during stakeholder identification/analysis to be carried out while preparing the sub-project specific SEPs. The implementing General Directorates will consult with each group of stakeholders on different issues according to their roles, responsibilities, interests, and level of influence. The stakeholder engagement methods to be used during project implementation, which aim to sustain ownership of the project stakeholders' and to increase the awareness on social impact of the project are explained in SEP.

#### *6.1. Grievance Mechanism*

The Grievance Mechanism (GM) is a mechanism that provides channels for stakeholders to provide feedback on project activities and raise their grievances and enables the identification and resolution of the problems affecting the project. By increasing transparency and accountability, GM aims to reduce the risk of the project affecting citizens/beneficiaries and acts as important feedback and learning mechanism to improve the impact of the project. Details of the GM is provided in the project SEP.

Any grievances that may occur during the project will be addressed at four levels. The GM at the first level will be undertaken by the ABDGM. Secondly, contractors will establish their own GM for undertaking grievances for subcontractors and workers. As the third level the MOAF's GM (TİMER) will be effectively adapted for the Project. Finally, the Presidential Communication Center (CİMER<sup>6</sup>) will constitute the fourth level of the GM of this project.

MoAF has its own communication center called TİMER (Tarım İletişim Merkezi – Agriculture Communication Center). The applicants can communicate their requests (such as suggestions, complaints, compliments, inquires for information or whistleblower complaints, questions of livestock, agriculture, administration, food, forest and water) by this center. The communication channels for TİMER are given below.

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<sup>6</sup> <https://www.cimer.gov.tr>, <https://giris.turkiye.gov.tr/>

<b>Webpage</b>	<a href="https://timer.tarimorman.gov.tr/">https://timer.tarimorman.gov.tr/</a> <a href="http://www.turkiye.gov.tr">www.turkiye.gov.tr</a>
<b>Hotline</b>	ALO 180
<b>Mail Address</b>	T.C. TARIM VE ORMAN BAKANLIĞI Tarım ve Orman İletişim Merkezi Üniversiteler Mahallesi Dumlupınar Bulvarı, No: 161 06800, Ankara

## 7. References

- 2017. "World Bank Environmental and Social Framework." World Bank, Washington, DC.
- 2018. Environmental and Social Framework (ESF) Guidance Notes for Borrowers. World Bank, Washington, DC.
- 2022, Türkiye Climate Smart and Competitive Agricultural Growth Project ESMF, MoAF, Ankara
- General Directorate of Land Registry and Cadastre Web Page:  
<https://tkgmmakale.com/kahramanmaras-depremi-kapsaminda-yurutulen-calismalar>

## Annexes

Annex 1: Screening Form

Annex 2: Environmental and Social Management Plan Template

Annex 3: Detailed List of Environmental and Social Agreements, Conventions and Legislation in Türkiye

Annex 4: Indicative Outline of Pest Management Plan

Annex 5: Chance Find Procedure

## Annex 1: Screening Form

The E&S Screening procedure comprises a two-stage process: (1) Initial screening by using the Exclusion List which is applied as part of the Project’s eligibility Criteria; and (2) Screening the proposed activities to identify an approach for E&S risk management. This Screening Form is the second stage of the screening process and is to be used for all subproject activities. The completed forms will be signed and kept in the Project ESF file. The first 3 E&S Screening Forms will be submitted to the World Bank for prior review and no objection. After these first 3, the World Bank and the PCU will reassess whether prior review is needed for further E&S screening of all sub-projects or a certain category of sub-projects (for example, for activities exceeding a certain budget, or for sub-projects of a specific nature). The World Bank may review the forms that are not subject to prior review (if agreed) during implementation support visits.

### 1. Subproject Information:

<b>Subproject Title</b>	
<b>Subproject Location</b>	
<b>Regional Unit in Charge</b>	
<b>Estimated Cost</b>	
<b>Start/Completion Date</b>	

### 2. Environmental and Social Screening Questionnaires

Questions	Answer		Next Steps
	Yes	No	
<b>ESS1</b>			
1. Is the subproject likely to have significant adverse environmental impacts that are sensitive and unprecedented that trigger the ‘Ineligible Activities’ and exclusion?			If “Yes”: Exclude from project.
2. Does the subproject involve <u>construction</u> of a new irrigation channels or barn/farm on a green field?			If “Yes”: 1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2. 2. Include E&S risk management measures in bidding and contract documents.
3. Does the subproject involve <u>renovation or rehabilitation</u> of irrigation channels or barn/farm in situ?			If “Yes”: 1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2. 2. Include E&S risk management measures in bidding and contract documents.

Questions	Answer		Next Steps
	Yes	No	
4. Will construction or renovation works require new borrow pits or quarries to be opened?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
<b>ESS2</b>			
5. Does the subproject involve uses of goods and equipment involving forced labor, child labor, or other harmful or exploitative forms of labor?			If "Yes": Exclude from project.
6. Does the subproject involve recruitment of workforce including direct, contracted, primary supply, and/or community workers?			If "Yes": Apply LMP.
7. Do workers need PPE relative to the potential risks and hazards associated with their work?			If "Yes": Apply LMP.
8. Is there a risk that women may be underpaid when compared to men when working on the project construction?			If "Yes": Apply LMP.
9. Does the project lead to any risks and impacts on, individuals or groups who, because of their particular circumstances, may be disadvantaged or vulnerable? <sup>7</sup>			If "Yes": Apply LMP and relevant measures described in project level SEP.
<b>ESS3</b>			
10. Is the project likely to generate solid or liquid waste that could adversely impact soils, vegetation, rivers, streams or groundwater?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>

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<sup>7</sup> "Disadvantaged or vulnerable" refers to those individuals or groups who, by virtue of, for example, their age, gender, ethnicity, religion, physical, mental or other disability, social, civic or health status, sexual orientation, gender identity, economic disadvantages or ethnic peoples status, and/or dependence on unique natural resources, may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits.

Questions	Answer		Next Steps
	Yes	No	
11. Are any of the construction works involve the removal of asbestos or other hazardous materials?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
12. Are works likely to cause significant <sup>8</sup> negative impacts to air and / or water quality?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
13. Does the activity rely on existing infrastructure (such as discharge points) that is inadequate to prevent environmental impacts?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
14. Is there any potential to have impact on soil due to agro-chemicals (e.g., pesticides) used in farmlands due to the consequences of the subproject activities (e.g., development of irrigation system, agriculture related activities, seed and fertilizer assistance)?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a PMP for the proposed subproject, based on the template in Annex 4.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
<b>ESS4</b>			
15. Is there a risk of increased community exposure to communicable disease (such as COVID-19, HIV/AIDS, Malaria), or increase in the risk of traffic related accidents?			<p>If "Yes": Apply LMP and relevant measures in SEP.</p>
16. Is an influx of workers, from outside the community, expected? Would workers be expected to use health services of the community? Would they create pressures on existing community services (water, electricity, health, recreation, others?)			<p>If "Yes": Apply LMP.</p>

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<sup>8</sup> Potential adverse risks and impacts are not likely to be significant if these are likely to have the characteristics as: (i) predictable and expected to be temporary and/or reversible, (ii) low in magnitude, (iii) site-specific, without likelihood of impacts beyond the actual footprint of the sub-project, and (iv) low probability of serious adverse effects to the human health and/or environment. These risks and impacts can be easily mitigated in a predictable manner.

Questions	Answer		Next Steps
	Yes	No	
17. Is there a risk that SEA/SH may increase as a result of project works?			If "Yes": Apply LMP.
18. Would any public facilities, such as schools, health clinic, mosque be negatively affected by construction?			If "Yes": 1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.  2. Include E&S risk management measures in bidding and contract documents.
<b>ESS5</b>			
19. Does the sub-project involve involuntary land acquisition?			If "Yes": Refer to and apply the project Resettlement Framework (RF).
20. Does the sub-project involve physical and/or economic displacement of people?			If "Yes": Refer to and apply the project RF.
21. Is private land required for the sub-project activity being voluntarily donated to the sub-project?			If "Yes": Refer to and apply the project RF.
22. Is there any possibility to move out, or close of business/commercial/livelihood activities of persons during construction (Are there any formal/informal users or non-titled people who are utilizing (inhabiting/doing business or using for other purposes etc.) the proposed site/project locations that will be used for civil work? If yes, please provide how many and for what purposes).?			If "Yes": Refer to and apply the project RF.
23. Will there be any expropriation under the sub-project?			If "Yes": Refer to and apply the project RF.
<b>ESS6</b>			
24. Does the sub-project involve activities that have potential to cause any significant loss or degradation of critical natural habitats whether directly or indirectly, or which would lead to adverse impacts on natural habitats?			If "Yes": Exclude from project.
25. Will the sub-project involve the conversion or degradation of non-critical natural habitats?			If "Yes": 1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.  2. Include E&S risk management measures in bidding and contract documents.



Questions	Answer		Next Steps
	Yes	No	
			<p>If the sub-project involves the conversion or degradation of modified habitats<sup>9</sup> that does not include significant biodiversity value:</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
26. Will this activity require clearance of natural forest?			If "Yes": Exclude from project.
27. Will this activity require clearance of trees, including inland natural vegetation?			<p>If "Yes":</p> <ol style="list-style-type: none"> <li>1. Prepare a site-specific ESMP by customizing the project level ESMP for the proposed subproject, based on the template in Annex 2.</li> <li>2. Include E&amp;S risk management measures in bidding and contract documents.</li> </ol>
28. Will there be any significant impact on any ecosystems of importance (especially those supporting rare, threatened, or endangered species of flora and fauna)?			If "Yes": Exclude from project.
<b>ESS8</b>			
29. Is the subproject to be located within or adjacent to a sensitive site (historical or archaeological or culturally significant site) or facility?			If "Yes": Apply Chance Find Procedures in Annex 5.
30. Is the sub-project to be located near buildings, sacred trees or objects having spiritual values to local communities (e.g. memorials, graves or stones) or require excavation near there?			If "Yes": Apply Chance Find Procedures in Annex 5.

**APPENDICES FOR LAND ACQUISITION**

<sup>9</sup> Modified habitats are areas that may contain a large proportion of plant and/or animal species of nonnative origin, and/or where human activity has substantially modified an area’s primary ecological functions and species composition. Modified habitats may include, for example, areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands.

1	Copy of title deed
2	Satellite image (if any)
3	Photo of plot and surroundings
4	Other documents

### 3. Conclusion

Summary of the key risk by ESSs. Based on the result from the screening above, please write the E&S risk rating and list the E&S risk management instruments to be prepared / adopted and implemented:

a)

b)

**Name and title of person who conducted screening:**

**Date of screening:**

## Annex 2: Environmental and Social Management Plan Template

Environmental and social risks and impacts are strongly linked to subproject location and scope of activities. This ESMP should be customized for each specific subproject location and activities.

### 1. Sub-project Information

Sub-project Title:	
Estimated Cost:	
Start/Completion Date:	

### 2. Site/Location Description

This section concisely describes the proposed location and its geographic, ecological, social and temporal context including any offsite investments that may be required (e.g., access roads, water supply, etc.). Please attach a map of the location to the ESMP.

### 3. Sub-project Description and Activities

This section lists all the activities that will take place under the subproject, including any associated activities (such as building of access roads or transmission lines, or communication campaigns that accompany service provision).

### 4. ESMP Matrix: Risk and Impacts, Mitigation, Monitoring

This section should identify anticipated site-specific adverse environmental and social risks and impacts; describe mitigation measures to address these risks and impact; and list the monitoring measures necessary to ensure effective implementation of the mitigation measures. It may draw from the ESMF's pre-identification of potential risks/impacts and mitigation measures, as applicable, and drill down further to ensure relevance and comprehensiveness at the site-specific level. For subprojects involving construction, two sets of tables may be needed, for the construction phase and the operation phase.

The below Environmental and Social Management Plan covers all sub-project activities and will be customized for "Low" and "Moderate" risk sub-projects. (please add rows depending on the impacts of the components).

Potential Risks and Impacts	Proposed Mitigation Measures	Phase			Indicators for monitoring	Frequency of Monitoring			Responsibility for implementation and monitoring	Estimated Cost <sup>10</sup>
		Planning	Construction	Operation		Continuous	Monthly	Quarterly		
General for All Construction Works										
Environmental and Social (E&S) Management:  Inadequate management of environmental and social risks and impacts of the sub-project	The Contractor will prepare and submit for approval and subsequently implement its Contractor ESMP (C-ESMP). The C-ESMP should be submitted prior to the commencement of construction works and no construction activities will be carried out under the sub-project until approval of the C-ESMP. The C-ESMP will include at least the following site-specific management plans: <ul style="list-style-type: none"> <li>• Occupational health and safety (OHS) management plan including risk assessment and emergency response plan</li> <li>• Community health and safety (CHS) management plan including traffic management plan</li> <li>• Waste management plan</li> <li>• Chance find procedure</li> <li>• Pollution prevention plan</li> <li>• Water supply and wastewater management plan</li> <li>• Labor management plan (to be prepared in accordance with project LMP)</li> <li>• Grievance mechanism (GM)</li> </ul>	X	X		All sub-managements plans are approved prior to construction and implemented throughout the construction period.		X		Contractor (implementation) Supervision Consultant (supervision)	
	The Contractor will employ at least a full-time OHS specialist and a full-time environmental specialist prior to the commencement of construction works. The Contractor shall submit the CVs of	X	X		Relevant E&S staff is mobilized and maintained throughout the		X		Contractor (implementation)	

<sup>10</sup> The costs cannot be fully determined at this stage. They will be calculated for each activity in the activity specific ESMPs.

	specialists for approval. These specialists should be present at the site throughout the construction period.			construction period.			Supervision Consultant <i>(supervision)</i>	
	The Contractor will prepare a training program and provide training to all his workers, before they start working on site, on basic environmental, social, health and safety (ESHS) risks associated with the proposed construction works and the workers' responsibility. The training program shall be repeated on a monthly basis. The Contractor's monthly training program will also cover topics related to Code of Conduct such as sexual harassment particularly towards women and children, violence, including sexual and/or gender-based violence and respectful attitudes while interacting with the local community.	X	X	Training program approved and all relevant staff trained.  Training records		X	Contractor <i>(implementation)</i>  Supervision Consultant <i>(supervision)</i>	
Air Quality:  Dust generation around the sub-project site due to construction activities, and emissions from construction equipment and vehicles	Minimize dust from exposed work sites by applying water on the ground regularly during the dry season.  Construction debris shall be kept in a controlled area and sprayed with water mist to reduce debris dust.  Keep stockpile of aggregate materials covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals.  In case of pneumatic drilling during excavation, dust shall be suppressed by ongoing water spraying and/or construction dust screen enclosures at the site.  The surrounding environment such as roads, etc. shall be kept free of debris to minimize dust.  There will be no open burning of construction/waste materials at the site.  There will be no excessive idling of construction vehicles at sites. Reduce the operation hours of generators /machines /equipment /vehicles as appropriate.  Control vehicle speed when driving through community areas so that dust dispersion from vehicle transport is minimized.		X	Visual inspection of air quality control measures  Records of maintenance  Records of complaints		X	Contractor <i>(implementation)</i>  Supervision Consultant <i>(supervision)</i>	

	<p>The trucks that transport materials shall be covered to decrease dust emissions.</p> <p>Dust measurements shall be conducted by an authorized laboratory accordingly if any grievance regarding dust generation is received from the nearest receptors. If measured levels are above limit values, mitigation measures shall be enhanced in this respect, i.e., increasing wet suppression /watering activities, applying non-toxic chemicals, further reducing speed/traffic.</p>									
<p>Noise: Noise generation due to construction vehicles and equipment</p>	<p>Limit construction to restricted times defined in the national legislation and plan activities in consultation with nearby communities so that the noisiest activities are undertaken during periods that will result in the least disturbance.</p> <p>During operations, the engine covers of generators, air compressors, and other powered mechanical equipment shall be closed, and equipment placed as far away from residential/community areas as possible.</p> <p>All equipment will be maintained to keep it in good working order by manufacturing maintenance procedures and installing acoustic enclosures around generators to reduce noise levels.</p> <p>Use when needed and feasible noise-control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting of fast-growing trees)</p> <p>Avoid the unnecessary use of alarms, horns and sirens.</p> <p>Minimize project transportation through community areas. Maintain a buffer zone (such as open spaces, rows of trees or vegetated areas) between the project site and residential areas to lessen the impact of noise to the living quarters.</p> <p>Noise measurements shall be conducted if any grievance regarding noise generation is received from the nearest receptors. If measured levels are above limit values, mitigation measures shall be enhanced in this respect, i.e., installing</p>		X		<p>Visual inspection of noise control measures</p> <p>Records of complaints</p>	X			<p>Contractor <i>(implementation)</i></p> <p>Supervision Consultant <i>(supervision)</i></p>	

	acoustic barriers for mechanical equipment, limiting the hours of operation for specific pieces of equipment or operations, etc.								
Health and Safety: OHS-related risks due to unsafe practices and hazards at work sites such as work at height, rotating and moving equipment, electrical safety, working with hazardous material, etc.	<p>When planning activities, discuss steps to avoid people getting hurt. It is useful to consider:</p> <ul style="list-style-type: none"> <li>• Construction place: Are there any hazards that could be removed or should warn people about?</li> <li>• The people who will be taking part in construction: Do the participants have adequate skill and physical fitness to perform their work safely?</li> <li>• The equipment: Are there checks you could do to make sure that the equipment is in good working order? Do people need any particular skills or knowledge to enable them to use it safely?</li> <li>• Electricity Safety: Do any electricity good practices such as the use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measures, awareness on identifying burning smells from wires, etc. apply at the site? Is the worksite stocked with voltage detectors, clamp meters and receptacle testers?</li> </ul>	X		Visual inspection Employee records Equipment records		X		Contractor (implementation) Supervision Consultant (supervision)	
	<p>Appropriate signposting of the construction sites will inform workers of key rules and regulations to follow.</p> <p>The contractor's OHS specialist will provide a brief daily toolbox talk to the construction workers on ESHS risks associated with the construction activity that will be carried out on that particular day.</p> <p>The Contractor will ensure a safe working environment for the workers and before construction activities will supply appropriate personal protective equipment (PPE) in line with international best practice and Turkish Legislation (hard hats, gloves, dust masks, goggles, harnesses and safety boots, etc.).</p> <p>All activities will be implemented in line with both the Law on Occupational Health and Safety (Official Gazette No: 28339,</p>	X		Visual inspection of control measures OHS records Employee records Incident statistics and records Records of worker's complaints		X		Contractor (implementation) Supervision Consultant (supervision)	

	<p>dated June 30, 2012) and its relevant regulations and also with the World Bank Group EHS Guidelines.</p> <p>The Contractor will Immediately notify the MoAF GDs (through supervision consultants) about any serious incident which may have significant adverse effects on the environment, the affected communities, the public or workers. Then, MoAF will notify the World Bank about any serious incident in 48 hours and send an incident investigation report together with the root cause analysis and corrective action plan in 30 days to the World Bank.</p> <p>Keep the worksite clean and free of debris on a daily basis.</p> <p>Provision of first aid kit with bandages, antibiotic cream, etc. or health care facilities.</p> <p>Following safety guidelines for the storage, transport, and distribution of hazardous materials aiming to minimize the potential for misuse, spills, and accidental human exposure.</p> <p>Keep corrosive fluids and other toxic materials in properly sealed containers for collection and disposal in properly secured areas.</p> <p>Ensure structural openings are covered/protected adequately.</p> <p>Secure loose or light material that is stored on roofs or open floors.</p> <p>Keep hoses, power cords, welding leads, etc. from laying in heavily traveled walkways or areas.</p> <p>During heavy rains or emergencies of any kind, suspend all work.</p> <p>Follow the below measures for construction involving work at height:</p> <ul style="list-style-type: none"> <li>• Do as much work as possible from the ground.</li> <li>• Do not allow people with the following personal risks to perform work at height tasks: eyesight/balance problem; certain chronic diseases – such as osteoporosis, diabetes, arthritis or Parkinson’s disease; certain medications – sleeping pills, tranquilizers, blood pressure medication or</li> </ul>																	
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	<p>antidepressants; recent history of falls – having had a fall within the last 12 months, etc.</p> <ul style="list-style-type: none"> <li>• Only allow people with sufficient skills, knowledge and experience to perform the task.</li> <li>• Check that the place (e.g., a roof) where work at height is to be undertaken is safe.</li> <li>• Take precautions when working on or near fragile surfaces.</li> <li>• Clean up oil, grease, paint, and dirt immediately to prevent slipping; and</li> <li>• Provide fall protection measures e.g. safety harness, and simple scaffolding/guard rail for works over 4 meters from the ground.</li> </ul> <p>The contractor shall hire trained operators for the safe operation of specialized vehicles such as forklifts, including safe loading and unloading.</p> <p>Moving equipment with restricted rear visibility is outfitted with audible backup alarms. A flagman will be provided to each moving equipment operator to guide the movement of equipment.</p> <p>The contractor shall mark all energized electrical devices and lines with warning signs. The contractor shall check all electrical cords, cables, and hand power tools for frayed or exposed cords and follow manufacturer recommendations for the maximum permitted operating voltage of the portable hand tools.</p> <p>Both trainings and incidents (fatalities, lost time incidents, any significant events including spills, fire, etc.) including near-misses will be recorded.</p>																	
<p>Health and Safety: Community health and safety risks associated with construction activities including traffic and road-related risks</p>	<p>Rope off construction area and secure materials stockpiles/storage areas from the public and display warning signs including at unsafe locations. Do not allow children to play in construction areas.</p>		X		Visual inspection of control measures		X						Contractor <i>(implementation)</i>	Supervision Consultant <i>(supervision)</i>				

<p>(such as risks to the population due to inadequate construction and traffic management) from increased traffic volume and movement of heavy-duty vehicles</p>	<p>Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning.</p> <p>Control the driving speed of vehicles particularly when passing through a community or nearby school, health center or other sensitive areas.</p> <p>If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours, if needed.</p> <p>The project site must be lit during the night.</p> <p>The surrounding construction area should be kept clean, without waste disposed of there. The broken glass should be cleaned immediately to avoid any fires.</p> <p>Following safety guidelines for transportation of hazardous materials to the site aiming to minimize the potential for spills and accidental human exposure due to traffic accidents.</p> <p>Regular maintenance of vehicles to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p> <p>The public will be informed about the work to be carried out, including the measures taken regarding communicable diseases relating to labor influx and -post-disaster context (i.e., COVID-19 virus), using appropriate communication tools and methods (e.g., online/virtual and/or physically) in areas accessible to all stakeholders (including work sites).</p> <p>In case of any epidemic or pandemic / communicable disease, including COVID-19, the guidance, guidelines, and recommendations to be provided by the Ministry of Health, the Ministry of Family and Social Services, the Ministry of Labor and Social Security, and the World Health Organization will be followed, and all relevant measures will be taken for both employees and workplaces in terms of OHS and CHS.</p>				<p>Records of complaints</p>					
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	<p>Any traffic diversions should take into account the needs of disabled persons.</p> <p>The Contractor will ensure the construction site is properly secured and construction-related traffic regulated properly (including proper route planning). This will include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Signposting, warnings, barriers, and traffic diversions: the site will be visible, and the public warned of all potential hazards.</li> <li>• Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.</li> <li>• Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.</li> <li>• Active traffic management by trained and visible staff at the site, if required for a safe and convenient passage for the public.</li> </ul>																	
<p>Land Acquisition and Resettlement:</p> <p>Involuntary land acquisition and relocation of community members to new resettlement plots (if needed), including livelihood impacts</p>	<p>A resettlement plan (RP) for the sub-project will be prepared by the supervision consultant in accordance with the Resettlement Framework of the project to identify the risks and necessary mitigation measures to be applied specifically to the sub-project and RP will be implemented by the supervision consultant before the construction works.</p> <p>WB ESS5 will be followed in addition to relevant Turkish legislation as necessary.</p> <p>Potential economic and social impacts of land acquisition/resettlement on affected persons (on the livelihood of them also) will be assessed.</p> <p>Categories of stakeholders, including vulnerable groups, will be identified and consulted.</p>	X			Approval of RP	Monitoring of RP implementation	Records of complaints	Surveys	Reports		X							<p>Implementing General Directorates (<i>preparation /implementation</i>)</p> <p>Supervision Consultants (<i>support to GDs, if required</i>)</p>

	If resettlement is unavoidable, in addition to the full replacement cost, affected people will be provided assistance for relocation and related expenses in line with the resettlement plans.								
Water Quality and Wastewater:  Water pollution in nearby surface waters due to wastewater/waste generated at the construction area due to construction activities	<p>The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and/or silt fences to prevent sediment from moving off-site and causing excessive turbidity in nearby surface waters.</p> <p>Minimize storage or disposal of generated wastewater on the site.</p> <p>Temporary or final waste disposal and wastewater discharge without treatment near/in surface waters is strictly forbidden to prevent possible adverse impacts on surface waters. No soiled materials, solid wastes, toxic or hazardous materials should be stored in, poured into or thrown into water bodies for dilution or disposal.</p> <p>Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface waters.</p> <p>Wastewater generated at the construction site will be connected to the sewerage system, if possible, and approved by local authorities. If this is not possible, it will be deposited in the septic tank that will be impervious, in accordance with "Regulation on Pit Opening Where Sewer System Construction is not Applicable" published in Official Gazette No: 13783 dated 19.03.1971. Toilets with temporary septic tank might be used for this purpose as well. Septic tank effluent will be removed periodically by sewage trucks, and disposal will be provided within the scope of the protocol to be made with the relevant municipality that has a licensed wastewater treatment plant (WWTP). The Protocol will be submitted to the implementing General Directorates.</p> <p>If a package WWTP is to be established for the treatment of domestic wastewater to be generated at the construction site, necessary design approvals and discharge permits</p>	X		Visual inspection of control measures					Contractor (implementation) Supervision Consultant (supervision)

	<p>(Environmental Permit) will be received from the relevant governmental authorities.</p> <p>Activities should not affect the availability of water for drinking and hygienic purposes.</p> <p>The flow of natural waters should not be obstructed or diverted in another direction, which may lead to the drying up of river beds or flooding of settlements.</p> <p>Separate concrete works in waterways and keep concrete mixing separate from drainage leading to waterways.</p>								
<p>Soil and Groundwater Quality:</p> <p>Soil and groundwater pollution due to improper waste management and accidental spills, and soil erosion</p>	<p>Apply the mitigation measures specified in the “Solid and Hazardous Waste” section for proper waste management. Residual (left out) concrete in concrete mixers will not be allowed to wash out into the construction site, its vicinity, or access roads of construction sites. Related trainings will be provided to concrete mixer drivers.</p> <p>Hazardous and dangerous chemicals and materials will be secured in a designated storage area to prevent spillage and tip-over.</p> <p>Semi-used chemical-containing containers will have lids and lids will be tightened while they are not in use.</p> <p>In case of a spill of any hazardous material or hazardous wastes, spill prevention methods will be put in place in order to limit the exposure area. Workers who might intervene in such incidents should have relevant trainings on emergency response to spills.</p> <p>Proper spill kits will be placed at appropriate locations in the construction area.</p> <p>Schedule construction during the dry season, as appropriate.</p> <p>Contour and minimize the length and steepness of slopes.</p> <p>Use mulch, grasses or compacted soil to stabilize exposed areas.</p>		X		<p>Visual inspection of control measures</p> <p>Incident records</p> <p>Training records</p> <p>Records of complaints</p>	X		<p>Contractor <i>(implementation)</i></p> <p>Supervision Consultant <i>(supervision)</i></p>	

	<p>Cover with topsoil and re-vegetate (plant grass, fast-growing plants/bushes/trees) construction areas quickly once work is completed.</p> <p>Design channels and ditches for post-construction flows and line steep channels/slopes (e.g., with palm frowns, jute mats, etc.).</p>									
<p>Solid and Hazardous Waste:</p> <p>EHS risks due to inappropriate management of waste generated due to construction activities (such as construction demolition wastes, hazardous waste, biodegradable waste, recyclable waste, non-hazardous waste, etc.)</p>	<p>Manage wastes in accordance with the waste management hierarchy (prevent, reduce, reuse, recycle, recover, dispose) and train personnel to raise awareness on waste management.</p> <p>Segregate waste as recyclable, hazardous and non-hazardous waste. Mineral construction wastes will be separated from general refuse, organic, liquid, and chemical wastes by on-site sorting and stored in appropriate containers. Non-hazardous wastes, inert and biodegradable wastes and also recyclables must be collected separately, and special attention must be paid to prevent hazardous wastes from mixing with other types of waste.</p> <p>Collect, store and transport waste to appropriately designated /controlled licensed disposal areas/facilities (such as excavation waste storage areas, sanitary landfills, recycling/recovery facilities, etc.). Submit an official letter to implementing General Directorates stating that these wastes will be accepted at licensed sites</p> <p>Temporary waste storage area (to be established at the construction area) should be on impermeable ground, covered with a roof, and equipped with a suitable drainage system, proper spill kits and appropriate firefighting equipment. Wastes shall be temporarily stored in this area in separate compartments (labeled with waste codes) according to their types in order not to react with each other. Except for medical wastes, hazardous wastes shall be stored in the temporary waste storage area for a maximum of six (6) months and non-hazardous wastes for a maximum of one year. If one thousand kilograms or more per month hazardous waste is produced, a temporary storage permit should be obtained from the PDoEUCC.</p>		X		<p>Visual inspection of control measures</p> <p>Waste generation and disposal records</p> <p>Training records</p> <p>Records of complaints</p>	X			<p>Contractor <i>(implementation)</i></p> <p>Supervision Consultant <i>(supervision)</i></p>	

	<p>Excavation waste will be re-used for backfilling purposes as much as possible and recovery and other re-use options will be considered as appropriate. The excess excavation waste shall be transported and disposed of separately by licensed transport vehicles to existing licensed excavation waste storage area(s), identified by the relevant governmental authorities, in the district/region. Municipal solid waste will be collected by the relevant municipality within the scope of the protocol to be made. Hazardous waste shall be transferred to a licensed disposal facility via licensed waste transportation companies, and recyclable wastes to a relevant licensed recycling/recovery facility. All protocols shall be submitted to the implementing General Directorates.</p> <p>On-site storage of wastes prior to final disposal (including earth dug for foundations) should be at least 300 meters from rivers, streams, lakes and wetlands.</p> <p>Use a secured area for refueling and transfer of other toxic fluids distant from the settlement area (and at least 50 meters from drainage structures and 100 meters from important water bodies); ideally on a hard/non-porous surface.</p> <p>Train workers on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear and other protective equipment for protection in handling highly hazardous materials.</p> <p>Collect and properly dispose of small amounts of maintenance materials such as oily rags, oil filters, used oil, etc. Never dispose of spent oils on the ground and in water courses as they can contaminate soil and groundwater (including drinking water aquifers).</p> <p>After each construction site is decommissioned, all debris and waste shall be cleared.</p> <p>Keep the records of waste generation and disposal.</p>																	
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	<p>Whenever feasible, the Contractor will reuse and recycle appropriate and viable materials (except asbestos or asbestos-containing waste).</p> <p>Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties, and handling information. The containers of hazardous substances shall be placed in a leak-proof container to prevent spillage and leaching.</p> <p>No use of unapproved toxic materials including lead-based paints, un-bonded asbestos, etc.</p>																	
<p>Stakeholder Engagement and Grievance Mechanism: Construction-related complaints and temporary disruption to the local community including eligible property owners</p>	<p>Follow the relevant measures suggested in the SEP.</p> <p>Early liaison and effective communication will be carried out with people who may be affected by the work of the contractor and supervision consultant.</p> <p>Implementation of a program of ongoing liaison and respect for the local environment and residences will be formed.</p> <p>The supervision consultant will appoint a dedicated person(s) accountable for community liaison who will be focused on engaging with the community to provide the appropriate information and to be the first line of response to resolve issues of concern.</p> <p>The Project Grievance Mechanism will be implemented through the opening and closing of forms and complaints.</p> <p>The names and contact telephone numbers and e-mail addresses of all site personnel with responsibilities for both supervision and management of the works will be displayed on the site boarding.</p> <p>Once planning consent has been obtained, formal contact will be established with the mukhtar of the neighborhood and those who could potentially be affected by the construction of the rural houses will be informed via mukhtar. This will include consultation with relevant E&amp;S risk management instruments and identifying any particularly sensitive times of the day.</p>	X			Records of complaints	Stakeholder engagement records		X				Implementing General Directorates Contractor <i>(implementation)</i>	Supervision Consultant <i>(supervision)</i>					



	<p>Outside normal working hours, security personnel will act as the main point of contact via a dedicated phone number. Security will alert the person(s) accountable for liaison if necessary (available 24 hours).</p> <p>All workers will sign/commit to and be trained on the Code of Conduct to manage the potential adverse impacts on social cohesion and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks.</p> <p>Any complaints will be logged, fully investigated, and responded to quickly, advising what action has been taken. Complaints will be registered and reported to the Contractor, Supervision Consultant and also implementing General Directorates.</p> <p>Public notice boards will be established at site entrances providing contact details of the person(s) accountable for liaison including environmental matters.</p>								
<p>Labor and Working Conditions:</p> <p>Risks associated with potential labor influx and presence of worker camps (such as accommodation conditions, child labor risks, gender-based violence and harassment, human rights risks, etc.) and other labor issues</p>	<p>Follow the relevant measures in labor management plan to be prepared in accordance with project LMP.</p> <p>Workers will be provided with information and documentation that is clear and understandable regarding their terms and conditions of employment such as their rights under national labor and employment law (which will include any applicable collective agreements).</p> <p>Workers will be paid on a regular basis as required by national law and project LMP.</p> <p>Workers will be provided with adequate periods of rest per week, annual holiday and sick, maternity and family leave, as required by national law and project LMP.</p> <p>Workers will receive written notice of termination of employment and details of severance payments in a timely manner.</p>		X		<p>Visual inspection of control measures</p> <p>Health records</p> <p>Employee records</p> <p>Training records</p> <p>Records of worker's complaints</p>	X		<p>Contractor (implementation)</p> <p>Supervision Consultant (supervision)</p>	

	<p>Workers will be employed on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship.</p> <p>Project workers, including specific groups of workers, such as women, people with disabilities, migrant workers and children of working age, will be provided with appropriate measures of protection and assistance in line with ESS2 of WB ESF. This process will be executed in accordance with the project LMP.</p> <p>Workers are allowed to participate, or seek to participate, in workers' organizations and collective bargaining or alternative mechanisms.</p> <p>Children under the minimum age of 18 will not be employed or engaged by the Contractor in connection with this sub-project.</p> <p>Forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty, will not be used in connection with this sub-project.</p> <p>A worker's GM will be established by the Contractor at the construction site for all workers to raise workplace concerns. Contact details of the worker's GM will be provided.</p> <p>All workers will receive training about their rights under national labor and employment law and regarding the GM upon recruitment and before the implementation of the work.</p> <p>Code of Conduct will be shared with project workers during employment. All workers are obliged to comply with the Code of Conduct and sign relevant documentation at the time of employment.</p> <p>Movement in and out of the construction site will be controlled, and unauthorized access to the site will be prevented.</p> <p>Contractor will confirm that workers are fit for work before they start work, paying special attention to workers with underlying health issues or who may be otherwise at risk.</p>																	
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	<p>The Contractor shall provide information and awareness of communicable diseases to workers.</p> <p>The Contractor shall arrange safe drinking water, adequate toilet facilities, accommodation, rest and dining areas for the workers.</p> <p>The Contractor shall provide a first aid kit with bandages, antibiotic cream, etc. or health care facilities, and shall identify and train an adequate number of workers to provide first aid during medical emergencies.</p>								
Cultural Heritage: Chance find	<p>No disturbance of cultural or historic sites.</p> <p>If encountered with any cultural heritage/assets during construction works (especially excavation and earthworks) apply the chance finds procedure (see Annex-5 of ESMF of the project).</p>		X	Chance find records		X	Contractor ( <i>implementation</i> ) Supervision Consultant ( <i>supervision</i> )		
Biodiversity: Potential risks to flora and fauna due to construction activities and improper waste management	<p>If trees need to be cut in new resettlement plots, at least two times more than the trees cut will be planted at the site (preferably a site in the nearby region) identified by the General Directorate of Forestry.</p> <p>No cutting of trees or destruction of vegetation other than on construction site.</p> <p>No hunting, fishing, capture of wildlife or collection of plants.</p>	X		Tree plantation records		X	Implementing General Directorates		
			X	Visual inspection of control measures	X		Contractor ( <i>implementation</i> ) Supervision Consultant ( <i>supervision</i> )		

<p>Asbestos Management: Environmental, health and safety risks due to asbestos or asbestos-containing materials</p>	<p>If asbestos or asbestos containing materials (ACM) are found at a construction site, they should be clearly marked as hazardous waste.</p> <p>The asbestos should be appropriately contained and sealed to minimize exposure.</p> <p>Prior to removal, if removal is necessary, ACM should be treated with a wetting agent to minimize asbestos dust.</p> <p>If ACM is to be stored temporarily, it should be securely placed inside closed containers and clearly labeled.</p> <p>Removed ACM must not be reused.</p>		X		<p>Visual inspection of control measures</p> <p>Asbestos or ACM removal records</p>	X			<p>Contractor <i>(implementation)</i></p> <p>Supervision Consultant <i>(supervision)</i></p>	
<b>Specific to Rural Road Construction Works</b>										
<p>General Considerations</p>	<p>Avoid road construction in unstable soils, steep slopes and nearby river banks. Additional measures (see the section below on slope protection) need to be applied should there be no alternatives for road alignments.</p>	X			<p>Design approval</p>		Once during design		<p>Implementing General Directorates</p>	
	<p>Control placement of all construction waste (including earth cuts) to approved disposal sites (at &gt;300 m from rivers, streams, lakes, or wetlands).</p> <p>Erosion control measures should be applied before the rainy season begins, preferably immediately following construction. Maintain, and reapply the measures until vegetation is successfully established.</p> <p>Sediment control structures should be applied where needed to slow or redirect runoff and trap sediment until vegetation is established.</p>		X		<p>Visual inspection of control measures</p>	X			<p>Contractor <i>(implementation)</i></p> <p>Supervision Consultant <i>(supervision)</i></p>	
<p>Slope protection</p>	<p>Protect slopes from erosion and landslides by the following measures:</p> <ul style="list-style-type: none"> <li>Indigenous Species, fast-growing grass on slopes prone to</li> </ul>		X		<p>Visual inspection of</p>	X			<p>Contractor <i>(implementation)</i></p>	

	<p>erosion. These grasses help stabilize the slope and protect soil from erosion by rain and runoff. Locally available species possessing the properties of good growth, dense ground cover and deep root shall be used for stabilization.</p> <ul style="list-style-type: none"> <li>• Provide interceptor ditch, particularly effective in areas of high-intensity rainfall and where slopes are exposed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion.</li> <li>• For steep slopes, a stepped embankment (terracing) is needed for greater stability.</li> <li>• Place a retaining wall at the lower part of the unstable slope. The wall needs to have weeping holes for drainage of the road sub-base, thus reducing pressure on the wall.</li> <li>• Rocks (riprap) can be used in addition to protect the slope.</li> <li>• Prevent uncontrolled water discharge from the road surface by sufficiently large drainage ditches and to drain water away from the downslope.</li> </ul>				control measures				Supervision Consultant (supervision)	
<b>Specific to Wastewater Systems</b>										
General Considerations for Septic Tanks	<p>Septic tanks must have a vent pipe to prevent the build-up of gas inside the chamber and shall have a 'manhole' that provides access inside the tank if needed.</p> <p>Ensure that the septic tanks have two chambers: the first chamber is for settling sludge, and the second chamber is for aerobic treatment. These chambers will generally treat wastewater better. Partially treated septic tank effluent can pollute groundwater and surface water. If this is not possible, septic tanks will be impervious and designed in accordance with "Regulation on Pit Opening Where Sewer System Construction is not Applicable" published in Official Gazette No: 13783 dated 19.03.1971.</p>		X		Design approval		Once during design		Implementing General Directorates	
	<p>Do not discharge septic tank effluent to an open drain or other surface water. The effluents need to be treated before final disposal. This may be achieved through (i) an underground leach field, (ii) a vegetated leach field, or (iii) a pit for soaking away. If</p>			X	Effluent disposal records (if any)		X		Local Authority	

	<p>this is not possible, septic tank effluent will be removed periodically by sewage trucks, and disposal will be provided within the scope of the protocol to be made with the relevant municipality that has a licensed wastewater treatment plant.</p> <p>Community awareness should be raised so that the community inspects the septic tanks periodically and ensures that the septic tanks are emptied every few years for the tank to continue to function properly.</p>			<p>Records of community awareness activities</p> <p>Records of complaints</p>			(Mukhtar, municipality)	
General Considerations for Package Wastewater Treatment Plant	<p>Design approval of the package wastewater treatment plant for the treatment of domestic wastewater will be taken before the construction and WWTP and discharge permit (Environmental Permit) will be received from the relevant governmental authorities before its operation. The use of modular (package) WWTP will be used as a last measure and avoided as much as possible due to earthquake risks.</p>	X	X	<p>Design approved and environmental permit taken</p>	Once during design and once before operation	Contractor ( <i>implementation</i> ) Supervision Consultant ( <i>supervision</i> )		

## **5. Capacity Development & Training**

Based on the implementation arrangements and responsible parties proposed above, this section outlines any capacity building, training or new staffing that may be necessary for effective implementation.

## **6. Implementation Schedule and Cost Estimates**

This section states the implementation timeline for the mitigation measures and capacity development measures described above, as well as a cost estimate for the implementation. The cost estimate can focus on the line items that will be covered by the project implementing agency, with costs of mitigation measures to be implemented by the contractor left to the contractor to calculate.

## **7. Attachments**

site-specific SEP etc.

## Annex 3: Detailed List of Environmental and Social Agreements, Conventions and Legislation in Türkiye

Topic	Relevant Laws, Regulations, Communiqués and Ordinances
<b>Main</b>	Constitution of the Republic of Türkiye
<b>Environment</b>	<p>Environmental Law (Law No: 2872, Date of Ratification: 1983)</p> <p><b>Environmental Management, Permitting and Planning</b></p> <p>Municipality Law (Law No: 5393, Date of Ratification: 2005).</p> <p>Metropolitan Municipality Law (Law No: 5216, Date of Ratification: 2004).</p> <p>Environmental Auditing Regulation, Official Gazette date: November 21, 2008 and No: 27061.</p> <p>Environmental Impact Assessment Regulation, Official Gazette date: November 25, 2014 and No: 29186.</p> <p>Preparation of Spatial Plans Regulation, Official Gazette date: June 14, 2014 and No:29030.</p> <p>Regulation on Environmental Permit and Licenses, Official Gazette date: September 10, 2014, No: 29115.</p> <p>Regulation for Starting up and Operating a Work Place, Official Gazette date: August 10, 2005, No: 25902.</p> <p>Building Earthquake Regulation, Official Gazette date: March 18, 2018, No: 30364.</p> <p><b>Air Quality Control and Management</b></p> <p>Regulation Concerning Follow up of Greenhouse Gas Emissions, Official Gazette date: May 31, 2014, No: 29003.</p> <p>Regulation on the Control of Air Pollution from Heating, Official Gazette date: January 13, 2005, No: 25699.</p> <p>Regulation on the Control of Exhaust Emissions, Official Gazette date: March 11, 2017, No: 30004.</p> <p>Industrial Air Pollution Control Regulation, Official Gazette date: December 20, 2009, No: 27277.</p> <p>Regulation on Assessment and Management of Air Quality, Official Gazette date: June 6, 2008, No: 26898.</p> <p><b>Energy Efficiency and Climate Change</b></p> <p>Energy Efficiency Law (Law No: 5627, Date of Ratification: 2007).</p> <p>Regulation on Decrease of Ozone Depleting Substances, Official Gazette date: April 7, 2017, No: 30031.</p> <p>Regulation on Increase of Efficiency in the Usage of Energy and Energy Resources, Official Gazette date: October 27, 2011, No: 28097.</p> <p><b>Noise Control and Management</b></p> <p>Environmental Noise Control Regulation, Official Gazette date: November 30, 2022, No: 32029.</p> <p>Regulation on the Environmental Noise Emission caused by Equipment used Outdoors, Official Gazette date: December 30, 2016, No: 26392.</p> <p><b>Waste Management</b></p> <p>Regulation of Waste Management, Official Gazette date: April 2, 2015, No: 29314.</p> <p>Regulation Concerning the Landfill of Wastes, Official Gazette date: March 26, 2010, No: 27533.</p> <p>Regulation on the Control of Excavation Materials, Construction and Demolition Wastes, Official Gazette date: March 18, 2004, No: 25406.</p>



Topic	Relevant Laws, Regulations, Communiqués and Ordinances
	<p>Regulation on the Control of Medical Wastes, Official Gazette date: January 25, 2017, No: 29959.</p> <p>Regulation on the Control of Packaging Wastes, Official Gazette date: December 27, 2017, No: 30283.</p> <p>Regulation on the Control of Waste Batteries and Accumulators, Official Gazette date: August 31, 2004, No: 25569.</p> <p>Regulation on Management of Waste Oils, Official Gazette date: December 21, 2019, No: 30985.</p> <p>Zero Waste Regulation, Official Gazette date: July 12, 2019, No: 30829.</p> <p>Regulation on the Control of Waste Tires, Official Gazette date: November 25, 2006, No: 26357.</p> <p><b>Water and Groundwater Management</b></p> <p>Groundwater Law (Law No: 167, Date of Ratification: 1960)</p> <p>Ordinance on Groundwater Resources, Official Gazette date: August 8, 1961, No: 10875.</p> <p>Regulation on Protection of Ground Waters against Pollution and Deterioration, Official Gazette date: April 7, 2012, No: 28257.</p> <p>Regulation on the Quality and Treatment of Water Intended for Potable Water Supply, Official Gazette date: July 6, 2019, No: 30823.</p> <p>Regulation on Water for Human Consumption, Official Gazette date: February 17, 2013, No: 25730.</p> <p>Regulation on the Control of Pollution Caused by Dangerous Substances in Water Environment, Official Gazette date: November 26, 2005, No: 26005.</p> <p>Regulation on Pit Opening Where Sewer System Construction is not Applicable, Official Gazette date: March 19, 1971, No: 13783.</p> <p>Regulation on Surface Water Quality, Official Gazette date: November 30, 2012, No: 28483.</p> <p>Urban Wastewater Treatment Regulation, Official Gazette date: January 8, 2006, No: 26047.</p> <p>Regulation on Wastewater Collection and Disposal Systems, Official Gazette date: January 6, 2017, No: 29940.</p> <p>Water Pollution Control Regulation, Official Gazette date: December 31, 2004, No: 25687.</p> <p><b>Nature Protection</b></p> <p>National Parks Law (Law No: 2873, Date of Ratification: 1983)</p> <p>Land Hunting Law (Law No: 5919, Date of Ratification: 2003)</p> <p>Forestry Law (Law No: 6831, Date of Ratification: 1956)</p> <p>Law on Soil Protection and Land Use (Law No: 5403; Date of Ratification 2005)</p> <p>Pastures Law (Law No: 4342, Date of Ratification: 1998)</p> <p>Regulation on Pastures, Official Gazette date: July 31, 1998, No: 23419.</p> <p>Regulation on the Protection of Wetlands, Official Gazette date: April 4, 2014, No: 28962.</p> <p>Regulation on Procedures and Principles on the Protection of Game and Wild Animals and their Habitats and Combat with their Pests, Official Gazette date: October 24, 2005, No: 25976.</p> <p><b>Soil Quality Management</b></p> <p>Implementing Regulation on Conservation, Use and Planning of Agricultural Land, Official Gazette date: December 9, 2017, No: 30265.</p> <p>Regulation on the Control of Soil Pollution and Polluted Areas by Point Sources, Official Gazette date: June 8, 2010, No: 27605.</p>

Topic	Relevant Laws, Regulations, Communiques and Ordinances
<b>Occupational Health and Safety (“OHS”)</b>	<p>OHS Law (Law No: 6331, Date of Ratification: 2012)</p> <p>Public Health Law (Law No: 1593, Date of Ratification: 1930)</p> <p>Social Insurances and General Health Insurance Law (Law No: 5510, Date of Ratification: 2006)</p> <p>Communiqué on Hazard Classes List related to OHS, Official Gazette date: December 26, 2012, No: 28509.</p> <p>First Aid Regulation, Official Gazette date: July 29, 2015, No: 29429.</p> <p>Health and Safety Signs Regulation, Official Gazette date: September 11, 2013, No: 28762 (based on EU Council Directive 92/58/EEC dated June 24, 1992).</p> <p>Regulation on the Use of Personal Protection Equipment at Workplaces, Official Gazette date: July 2, 2013, No: 28695 (based on EU Council Directive 89/656/EEC dated November 30, 1989).</p> <p>Regulation on Health and Safety in Fixed Term and Temporary Employment, Official Gazette date August 23, 2013, No: 28744</p> <p>Regulation on Health and Safety Measures in the Use of Work Equipment, Official Gazette date: April 25, 2013, No: 28628.</p> <p>Regulation on Health and Safety Measures to be taken at Works Involving Chemicals, Official Gazette date: August 12, 2013, No: 28733.</p> <p>Regulation on Methods and Essentials of Work Health and Safety Training for Workers, Official Gazette date: May 15, 2013, No: 28648.</p> <p>Regulation on OHS Services, Official Gazette date: December 29, 2012, No: 28512)</p> <p>Regulation on Radiation Safety, Official Gazette date: March 24, 2000, No: 23999.</p> <p>Regulation on Control of Large-Scale Industrial Accidents, Official Gazette date: December 30, 2013, No: 28867.</p> <p>Management of Chemicals and Other Dangerous Substances</p> <p>Regulation on the Classification, Packaging, and Labeling of Dangerous Substances and Preparations, Official Gazette date: December 11, 2013, No: 28848, repeated.</p> <p>Regulation on the Material Safety Data Sheets for the Dangerous Substances and Preparations, Official Gazette date: December 13, 2014, No: 29204.</p> <p>Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals, Official Gazette date: June 23, 2017, No: 30115.</p>
<b>Cultural Heritage</b>	<p>Protection of Cultural and Natural Heritage Law (Law No: 2863, Date of Ratification: 1983)</p>
<b>Labor</b>	<p>Labor Law (Law No: 4857, Date of Ratification: 2003)</p> <p>Law on Private Security Services (Law No: 5188, Date of Ratification: 2004)</p> <p>Regulation on the Implementation of the Law on Private Security Services, Official Gazette date: October 07, 2004, No: 25606.</p> <p>Circular on Seasonal Agricultural Workers, No: 2017/6.</p>
<b>Land Acquisition</b>	<p>Expropriation Law (Law No: 2942, Date of Ratification: 1983)</p>
<b>Grievance Redress</b>	<p>Civil Law (Law No: 4721, Date of Ratification: 2001)</p> <p>Law on the Right to Information (Law No: 4982, Date of Ratification: 2003)</p> <p>Law on the Use of Right to Petition (Law No: 3071, Date of Ratification: 1984)</p>
<b>International Agreements and Conventions</b>	<p>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal</p> <p>Bern Convention on Protection of Europe’s Wild Life and Living Environment</p> <p>Convention on International Trade in Endangered Species of Wild Flora and Fauna (“CITES”)</p> <p>Convention on Long-range Transboundary Air Pollution</p> <p>European Convention on the Protection of the Archaeological Heritage</p>

Topic	Relevant Laws, Regulations, Communiques and Ordinances
	<p>European Landscape Convention</p> <p>International Convention for the Protection of Birds</p> <p>Montreal Protocol on Substances that Deplete the Ozone Layer</p> <p>Paris Convention on the Protection of the World Cultural and Natural Heritage</p> <p>Ramsar Convention on Wetlands of International Importance Especially as Wildfowl Habitat</p> <p>Stockholm Convention on Persistent Organic Pollutants</p> <p>United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa</p> <p>United Nations (“UN”) Framework Convention on Climate Change (Kyoto Protocol)</p> <p>UN (Rio) Convention on Biological Diversity</p> <p>Vienna Convention or the Protection of the Ozone Layer</p> <p>International Labour Organization (“ILO”) Occupational Safety and Health Convention</p> <p>Occupational Health Services Convention</p> <p>Labor Inspection Convention</p> <p>Promotional Framework for Occupational Safety and Health Convention</p> <p>Worst Forms of Child Labor Convention</p>

## Annex 4: Indicative Outline of Pest Management Plan

### 1. Background

outline:

- i. the purpose of the Plan,
- ii. indicate pest management authorities, and
- iii. pest management program objective.

### 2. Responsibilities of individuals

e.g., of Program Director, Health Chair, Pest Management Coordinator, Pest Management Personnel, etc.

### 3. General Information

Provide data on land use and soil, in the area where the pesticides are applied; climate, geomorphology, settlements in the area of concern, population, surface water, etc. as well as inventory of land use and layout of facilities.

### 4. Priority of Pest Management

e.g., undesirable vegetation, vertebrate pests, etc.

### 5. Integrated Pest Management

5.1. Principles of the Integrated Pest Management are:

- a. Mechanical and Physical Control. This type of control alters the environment in which a pest lives, traps, and removes pests where they are not wanted, or excludes pests. Examples of this type of control include harborage elimination through caulking or filling voids, screening, etc.
- b. Cultural Control. Strategies in this method involve manipulating environmental conditions to suppress or eliminate pests. For example, spreading manure from stables onto fields to dry prevents fly breeding. Elimination of food and water for pests through good sanitary practices may prevent pest populations from becoming established or from increasing beyond a certain size.
- c. Biological Control. In this control strategy, predators, parasites, or disease organisms are used to control pest populations. Sterile flies may be released to lower reproductivity. Viruses and bacteria may be used which control growth or otherwise kill insects. Parasitic wasps may be introduced to kill eggs, larvae, or other life stages. Biological control may be effective in and of it but is often used in conjunction with other types of control.
- d. Chemical Control. Pesticides kill living organisms, whether they be plants or animals. At one time, chemicals were considered to be the most effective control available, but pest resistance rendered many pesticides ineffective. The trend is to use pesticides which have limited residual action. While this has reduced human exposure and lessened environmental impact, the cost of chemical control has risen due to requirements for more frequent application. Since personal protection and special handling and storage requirements are necessary with the use of chemicals, the overall cost of using chemicals as a sole means of control can be quite costly when compared with nonchemical control methods.

## 5.2. Integrated Pest Management Outlines

Address each major pest or category of similar pests by site, in separate outlines.

## 5.3. Annual Workload for Surveillance, Prevention, and Control

Indicate the number of man-hours for surveillance, prevention, and control of pests.

## 6. Health and Safety

This chapter should contain health and safety requirements as follows:

- 6.1. Medical Surveillance of Pest Management Personnel. All personnel who apply pesticides should be included in a medical surveillance program.
- 6.2. Hazard Communication. Pest management personnel should be given hazard communication training, including hazardous materials in the workplace. Additional training should be given to new employees or when new hazardous materials are introduced into the workplace.
- 6.3. Personal Protective Equipment. Describe approved masks, respirators, chemical resistant gloves and boots, and protective clothing (as specified by applicable laws, regulations and/or the pesticide label) that will be provided to pesticide applicators. These items will be used during the mixing and application of pesticides as required. Pesticide-contaminated protective clothing should not be laundered at home but commercially. Severely contaminated clothing should not be laundered but considered a pesticide-related waste and disposed, as applicable for hazardous waste.
- 6.4. Fire Protection. The fire safety protection requirements have to be established; the pest management coordinator has to control the implementation of measures to prevent fire.

## 7. Environmental Considerations.

- 7.1. Protection of the Public. Precautions should be taken during pesticide application to protect the public, on and off the installation. Pesticides should not be applied outdoors when the wind speed exceeds 155 m/min. Whenever pesticides are applied outdoors, care is taken to make sure that any spray drift is kept away from individuals, including the applicator. Pesticide application indoors is accomplished by individuals wearing the proper personal protective clothing and equipment. At no time are personnel permitted in a treatment area during pesticide application unless they have met the medical monitoring standards and are appropriately protected.
- 7.2. Sensitive Areas. No pesticides are applied directly to wetlands or water areas (lakes, rivers, etc.) unless use in such sites is specifically approved.
- 7.3. Endangered/Protected Species and Critical Habitats. Protected migratory birds which periodically occur on the installation cannot be controlled without a permit. The Pest Management Coordinator periodically evaluates ongoing pest control operations and evaluates all new pest control operations to ensure compliance with the list of endangered species. No pest management operations are conducted that are likely to have a negative impact on endangered or protected species or their habitats without prior approval from environmental authorities.

7.4. Environmental Documentation. An environmental assessment which specifically addresses the pesticide use program on the installation has been prepared. This plan is referenced in the assessment as documentation of pesticide use.

## Annex 5: Chance Find Procedure

Cultural heritage encompasses tangible and intangible heritage which may be recognized and valued at a local, regional, national or global level. *Tangible cultural heritage*, which includes movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water. *Intangible cultural heritage*, which includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith— that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.

In the event that during construction, sites, resources or artifacts of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents. These procedures take into account requirements related to Chance Finding under national legislation including [list relevant cultural heritage legislation in country].

- Stop the construction activities in the area of chance find temporarily.
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a guard shall be arranged until the responsible local authorities take over. These authorities are [list the responsible authorities under national legislation].
- Notify the relevant [implementing agency field staff] and the relevant [list the responsible local authorities under national legislation] immediately. [Implementing agency field staff] will inform the [implementing agency management].
- The relevant [list the responsible local authorities under national legislation] shall promptly carry out the necessities and inform the [national level cultural heritage or archeology ministry] immediately from the date on which the information is received.
- The [national level cultural heritage or archeology ministry] would be in charge of evaluation
- /inspection of the significance or importance of the chance finds and advise on appropriate subsequent procedures.
- If the [national level cultural heritage or archeology ministry] determines that chance find is a non- cultural heritage chance find, the construction process can resume.
- If the [national level cultural heritage or archeology ministry] determines chance find is an isolated chance find, [national level cultural heritage or archeology ministry] would provide technical supports/advice on chance find treatment with related expenditure on the treatment provided by the entity report the chance find.