TÜRKİYE PUBLIC AND MUNICIPAL RENEWABLE ENERGY PROJECT

(PUMREP)

49.28 MWp / 38.5 MWe SOLAR (Photovoltaic) Power Plant Project of Konya Water and Sewerage Administration (KOSKI)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

NOVEMBER 2024

Sub-project Information	
Sub-project	**Details**
Name	Türkiye Public and Municipal Renewable Energy Project (PUMREP) 49.28 MWp / 38.5 MWe SOLAR (Photovoltaic) Power Plant Project of KOSKI (Konya Water and Sewerage Administration) Environmental and Social Management Plan (ESMP)
Project Owner/ Sub-borrower	Konya Water and Sewerage Administration (KOSKI)
Financial Intermediary	İller Bankası A.Ş (İLBANK)
Prepared by	Ardea Energy Engineering & Consulting

This Environmental and Social Management Plan has been prepared by Ardea Energy Engineering and Consulting on behalf of KOSKI within the scope of Türkiye Public and Municipal Renewable Energy Project (PUMREP) supported by the World Bank (WB) with ILBANK as the financial intermediary.

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ABBREVIATIONS

AoI	Area of Influence
CIMER	Presidential Communication Center
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
E&S	Environmental and Social
EHS	Environmental Health and Safety
ERP	Emergency Response Plan
ERT	Emergency Response Teams
ESF	Environmental and Social Framework
ESS	Environmental and Social Standards
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ETL	Energy Transmission Line
EU	European Union
FI	Financial Intermediary
GBV	Gender-Based Violence
GDNP	General Directorate of National Property
GHG	Greenhouse Gas
GM	Grievance Mechanism
HS	Health and Safety
IFC	International Finance Corporation
IFI	International Finance Institution
ILBANK	İller Bankası A.Ş.
KMM	Konya Metropolitan Municipality
KOSKİ	Konya Water and Sewerage Administration
LMP	Labor Management Plan
MoEUCC	Ministry of Environment, Urbanization and Climate Change
MSDS	Materials Safety Data Sheets
OG	Official Gazette
OHS	Occupational Health and Safety
OIP	Other Interested People
PAP	Project Affected People
PIU	Project Implementation Unit
PUMREP	Public and Municipal Renewable Energy Project
PPE	Personal Protective Equipment
Project	The Public and Municipal Renewable Energy Project (PUMREP)
SEA/SH	Sexual exploitation and abuse/sexual harassment
SEP	Stakeholder Engagement Plan
Sub-project	49.28 MWp/38.5 MWe Solar (Photovoltaic) Power Plant Project of KOSKI
YIMER	Foreigners Communication Center
WB	World Bank
WBG	World Bank Group

EXECUTIVE SUMMARY

The Public and Municipal Renewable Energy Project (PUMREP), financed by the World Bank (WB) with İller Bankası A.Ş. (ILBANK) as the Financial Intermediary (FI), marks a significant step towards sustainable energy solutions and enhanced energy security for the public sector in Türkiye. The Sub-project to be financed under PUMREP include the installation of renewable energy facility by the Konya Water and Sewerage Administration (KOSKI) with a capacity of 49.28 MWp / 38.5 MWe . This Sub-project is located in the Saraçoğlu neighborhood of the Karatay district in Konya province.

According to the protocol outlined in Annex 4 between KOSKI and the Konya Metropolitan Municipality (KMM), KOSKI will provide all necessary equipment and personnel support during the construction and operation phases. Meanwhile, KMM will be responsible for the effective execution and management of construction and operation activities, ensuring the renewable energy facilities are implemented and operated efficiently under the PUMREP. In addition to this, an addendum to the protocol has been prepared, which states that Konya Metropolitan Municipality (KMM) will manage the 30-year operation phase of the project. The addendum further clarifies that KMM will handle any malfunctions or breakdowns that may occur during the operation phase, ensuring that the system remains fully functional throughout its lifetime.

This Environmental and Social Management Plan (ESMP) is prepared for the KOSKI Sub-project, which has an installed capacity of 49.28 MWp / 38.5 MWe . The plan outlines the necessary measures and guidelines to ensure the Sub-project's environmental and social impacts are managed effectively throughout its construction and operational phases.

The primary objectives of the PUMREP include scaling up renewable energy use in public sector buildings and municipalities, reducing energy bills, and demonstrating leadership in the public sector's commitment to sustainable energy solutions and climate mitigation. Konya 38.5 MWe Solar Power Plant Project is expected to significantly reduce carbon emissions by approximately 26,370 tons annually, contributing to Türkiye's climate goals and enhancing energy security for Konya Metropolitan Municipality.

Sub-project will be interconnected via a single substation located within KMM’s parcel, which is lot 3 of block 31478 and the energy will be transmitted through a 4.5 km 154 kV Energy Transmission Line (ETL). The ETL is an associated facility for the sub-project.

The Sub-project will be tendered as a “Design, Supply and Installation” project. In this type of tender, the selected contractor is responsible for developing the detailed design as part of their contractual obligations. This process includes integrating ESMP measures into the design. Hence, specific layout and design details will be developed and finalized during the implementation phase of the project. This approach ensures that ESMP measures are integrated early in the design phase, alongside the development of the specific layout and design details. This early integration of ESMP measures is advantageous as it allows for a more cohesive and thorough incorporation of environmental and social considerations from the outset of the Sub-project.

ESMP for the Sub-project outlines the measures to mitigate any potential environmental and social impacts throughout the Sub-project lifecycle. This plan is essential for ensuring that the projects adhere to national and international environmental regulations and social safeguards. The Sub-project has

already received EIA positive decisions as per the national EIA Regulation (Official Gazette dated 29.07.2022, numbered 31907) in August 2022.

The Sub-project is not only pivotal in supporting Türkiye's renewable energy targets but also in setting a precedent for sustainable energy practices within the public sector. The comprehensive ESMP ensures that all environmental and social considerations are meticulously managed, paving the way for a cleaner and more sustainable future.

In addition to the environmental and social benefits, the Sub-project is anticipated to have significant economic and operational advantages. By harnessing solar energy, the Sub-project will enable substantial cost savings in energy expenses for public facilities, including administrative buildings, water supply and treatment facilities, and public lighting. This reduction in operational costs will allow the municipality to allocate resources more efficiently towards other essential services and infrastructure development, thereby improving the overall quality of life for residents. Furthermore, the Sub-project will generate local employment opportunities during both the construction and operational phases, fostering economic growth and supporting community development.

The ESMP describes the measures and controls developed for the management of the potential project impacts, determines the implementation schedule of these mitigation measures, defines the roles and responsibilities for implementation of ESMP as well as reporting and monitoring requirements in line with WB requirements.

This ESMP is based on an assessment of potential impacts and risks that may arise during pre-construction, construction, operation, and decommissioning stages of the sub-project and proposes appropriate mitigation measures to effectively address these impacts and risks.

The Sub-project site is situated at a considerable distance from settlements, so it will not cause any nuisance to nearby communities. The land acquisition, involving the expropriation of state lands, does not impose any restrictions. There are abundant surrounding lands available for livestock grazing, and the project will not decrease the available grazing area.

The implementation of the ESMP will be further strengthened through the use of the Sub-project specific Stakeholder Engagement Plan (SEP). The SEP will facilitate ongoing communication and collaboration with affected communities, ensuring their concerns and inputs are considered throughout the project lifecycle. This proactive engagement will help address any environmental and social impacts promptly, enhance transparency, and build trust with stakeholders. By integrating the SEP with the ESMP, the project will ensure that all environmental and social management measures are effectively implemented and continuously monitored, thereby promoting sustainable outcomes and mitigating potential issues.

1. INTRODUCTION

1.1 Financing Scheme

The Public and Municipal Renewable Energy Project (PUMREP) (hereinafter referred to as "the Project") aims to support the Government of Türkiye to scale-up Renewable Energy (RE) use in the public sector by focusing on central government buildings and municipalities. The Project will contribute to expanding the distributed RE market in public facilities help demonstrate leadership in the public sector to use sustainable energy solutions to deliver on the country's climate mitigation commitment and enhance energy security.

The PUMREP is financed by World Bank (WB) to support introducing RE technologies in municipalities. İller Bankası A.Ş. (ILBANK) acts as the Financial Intermediary (FI). The RE installations will be primarily used to offset the overall energy consumption from public facilities (i.e. administrative buildings, water supply and water treatment, public lighting, etc.) and thus reduce the municipalities' energy bills.

ILBANK has established an **Environmental and Social Management System (ESMS)** effective on **24th of Dec 2023**. The ESMS is aimed at ensuring systematic identification, assessment, management, monitoring, and reporting of the environmental and social (E&S) risks and impacts of the **projects and Sub-projects financed by the International Finance Institutions (IFIs)**. This process will be implemented on an ongoing basis throughout their loan duration in line with the requirements of the national legislation, international agreements and conventions ratified by Türkiye and E&S standards of lending **IFIs** (World Bank for the PUMREP). As a critical element of the ESMS, ILBANK has adopted and published an **E&S Policy**[1] applicable to all ILBANK projects and Sub-projects financed through IFIs.

Within the scope of the ILBANK's ESMS and World Bank Environmental and Social Framework (ESF), Sub-projects are classified 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 Sub-project the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other relevant areas of risks that may result in unintended impacts.

The Sub-project "Solar (Photovoltaic) Power Plant Project of KOSKI (38.5 MWe) will be located in Saraçoğlu neighborhood of Karatay district in Konya province.

In accordance with the national EIA Regulation that entered into force with the Official Gazette dated 29.07.2022 and numbered 31907, the Sub-project is subject to Annex-I of the EIA regulation and has secured EIA positive decision on August 2022 (Please see Annex 1).

ILBANK will be responsible for monitoring and supervising the tendering and construction process of the Sub-project. The construction of the Sub-project is planned to be completed by the end of 2025.

According to protocol between KOSKI and KMM which presented in the Annex 4, During the 30-year operating period, KMM will carry out the operating activities. In other words, KMM is responsible for stakeholder engagement activities and grievance resolution and will also be responsible during the operation phase and ensure that the Sub-Project is carried out in an inclusive and participatory manner.

[1] https://www.ilbank.gov.tr/sayfa/ilbank-environmental-and-social-policy
https://www.ilbank.gov.tr/sayfa/ilbank-cevresel-ve-sosyal-politika-dokumani

The contractor, selected through a competitive bidding process, is responsible for the construction, logistics, design, test and commissioning, and provisional acceptance of the solar plant. The supervision consultant, appointed by the World Bank, is responsible for guiding all parties involved in the Sub-project, including the municipality, the contractor, and ILBANK.

The Sub-project has been classified as having a **Moderate** level of risk according to the E&S Risk Screening conducted by ILBANK in line with the ILBANK ESMS. One of the tasks under the scope of the Sub-project is the preparation of an Environmental and Social Management Plan (ESMP) in accordance with ILBANK's ESMS and WB ESF including applicable Environmental and Social Standards (ESSs), World Bank Group (WBG) General Environment Health and Safety (EHS) Guidelines and Industry Sector Guidelines, and the national legislation in force in Türkiye.

1.2 Purpose and Scope of the ESMP

This ESMP has been prepared as an instrument that details the measures to be taken during the implementation and operation of the Sub-project to eliminate or offset adverse E&S impacts or to reduce to acceptable levels; and that designates and commits the actions needed to implement these measures.

A Stakeholder Engagement Plan (SEP) has also been prepared for the Sub-project as a stand-alone document.

1.3 E&S Requirements Applicable to the Sub-project

The Sub-project will be implemented in compliance with the requirements of the applicable national legislation and international agreements and conventions to which Türkiye is a party of, and in accordance with the following international requirements:

- WB Environmental and Social Framework (ESF, 2018) and the Environmental and Social Standards (ESSs) forming part of the ESF,
- WB Group General Environmental, Health and Safety Guidelines (EHSGs) (2007), and
- WB Group EHSGs for Electric Power Transmission and Distribution (2007).

The list of the WB ESSs and relevance to the Sub-project are given in Table 1 below.

Table 1. WB ESS and Relevance to the Sub-project

WB ESS	**Relevance to the Sub-project**
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	A comprehensive assessment and management plan for environmental and social (E&S) risks and impacts is implemented for the Sub-project, covering all stages from construction to operation of the solar power plant.
ESS2: Labour and Working Conditions	The ESMP incorporates the management of labor and working conditions, with a particular focus on risks related to electrical equipment handling and safety. Policies are set to ensure compliance with occupational health and safety standards.
ESS3: Resource Efficiency and Pollution Prevention and Management	The ESMP emphasizes resource efficiency and pollution prevention, focusing on the cleaning of solar panels, and the temporary storage and management of obsolete or waste panels and other electrical and electronic parts.
ESS4: Community Health and Safety	Community health and safety risks, such as traffic risks and potential hazards during construction and operation, are addressed in the ESMP. The Environmental and Social Management Plan outlines mitigation measures to minimize these impacts and engage with affected communities.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	All land acquisition for the Sub-project is conducted through expropriation facilitated by government incentives. There are no formal or informal land uses that could result in involuntary resettlement. Grazing lands and access routes remain unrestricted, and the land is not suitable for agriculture, eliminating concerns about displacement or loss of livelihood.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	While there are no critical species or habitats at the Sub-project site, mitigation measures are still included in the ESMP to protect local species during construction and operation activities.
ESS7: Indigenous Peoples	This ESS is not applicable to the Sub-project as there are no indigenous peoples or groups affected.
ESS8: Cultural Heritage	The Environmental Impact Assessment (EIA) Report concluded that there are no archaeological artifacts at or near the Sub-project site. However, the Chance Finds Procedure will be implemented as part of the contractor's ESMP to handle any unexpected discoveries during construction.
ESS9: Financial Intermediaries	ILBANK, as the Financial Intermediary, will be responsible for monitoring the E&S performance of the Sub-project and ensuring the effective implementation of all E&S Management Plans.
ESS10: Stakeholder Engagement and Information Disclosure	The Environmental and Social Management Plan (ESMP) is critical for ensuring that the project's environmental and social impacts are managed effectively throughout its lifecycle. The ESMP includes provisions for regular information disclosure to stakeholders, and keeps the community informed about Sub-project activities, potential impacts, and mitigation measures, fostering a transparent and open dialogue between the project and its stakeholders. SEP serves as the main engagement tool for the Sub-project, especially in addressing community concerns regarding grazing lands. It will facilitate ongoing information disclosure, stakeholder consultations, and conflict resolution.

When the national legislation differs from the levels and measures presented in the EHSGs, the Sub-project will achieve whichever is more stringent. Moreover, the up-to-date legislation will be followed.

A summary of the national legislation and international standards applicable to the management of environmental, social, health, and safety aspects of the proposed Sub-project is provided below.

1.3.1 Institutional and Legal Framework in Türkiye

In Türkiye, institutional framework consists of central and local administrations. Türkiye is structured by provinces according to economic and geographical conditions. Each province is managed by local administrations consisting of municipalities, villages/neighborhoods. Representatives of the administrative structure of municipalities and villages/neighborhoods are mayors and mukhtar, respectively. Ministries, which are central administrative units, provide services to local areas through their local branches including provincial organizations affiliated to governor and district organizations affiliated to district governors.

Environmental impacts, permits, management and inspection of the Sub-project is under the scope of authority of the Ministry of Environment, Urbanization and Climate Change (MoEUCC), Ministry of Agriculture and Forestry, Ministry of Culture and Tourism, Ministry of Labor and Social Security and Ministry of Health. MoEUCC is the key authority regulating policies and procedures related to conservation and protection of natural environment, management of natural resources and settlements by its general directorates. Those principally related to the Sub-project are given as follows:

- General Directorate of Environmental Impact Assessment, Permit, and Inspection
- General Directorate of Environmental Management
- General Directorate of Protection of Natural Assets
- General Directorate of Infrastructure and Urban Transformation Services
- General Directorate of Land Registry and Cadastral

Provincial, regional and district level administrations are the field organizations of ministries and related institutions.

The Sub-project is within the jurisdiction of the following field organizations:

- Konya Provincial Directorate of Environment, Urbanization and Climate Change,
- Konya Provincial Directorate of Agriculture and Forestry,
- Konya Regional Directorate for the Protection of Cultural Assets,
- State Hydraulic Works (DSİ) Regional Directorate,
- Regional Directorate of Highways.

Relevant neighborhood administrations have been associated as local administrations for the Sub-project.

National Legislation on Environmental, Social, Labor and Health and Safety:

The National Legislation applicable to the management of environmental, social, health and safety aspects of the proposed Project has been identified under this section.

The Environmental Law No: 2872 published in the Official Gazette No. 18132 dated 11.08.1983 and later revised in the Official Gazette No. 28661 and dated 29.05.2013 (Law No. 6486) constitutes the basic legal framework of the environmental legislation in Türkiye.

This law is supported by numerous regulations. Article 10 of Environmental Law forms the main framework of the Environmental Impact Assessment (EIA Regulation) published in the Official Gazette No. 31907 dated 29.07.2022. As per the EIA Regulation, the projects that are listed in its Annex-I are subject to a full EIA process and those projects have to receive an "EIA Positive" certificate to proceed with investments. The projects that are listed in Annex-II of the Regulation are subject to a shorter process where the project proponents are required to submit a Project Information File (PIF) to the MoEUCC. MoEUCC gives its "EIA is Necessary" or "EIA is not necessary" decision regarding the project.

Unless the decision that "EIA is Positive" or "EIA is not Required" is made in accordance with the EIA Regulation for the project's activities, incentive, approval, permit, building license and use permit for such projects cannot be granted, and no investment can be started or tendered for the project. However, this does not preclude applying for the processing of such incentives, approvals, permits, and licenses. As part of the European Union (EU) membership process, Türkiye has carried out a variety of organizational and legislative reforms. With these reforms, environmental legislation and environmental protection instruments have been harmonized with international standards. The activities and liabilities to be carried out within the scope of the Sub-project must adhere to the provisions of the relevant Turkish legislation.

According to the EIA Regulation (Official Gazette dated 29.07.2022 and numbered 31907), the Sub-project is within the scope of Annex-I of EIA Regulation. The EIA Positive Certificate for the Project is given in Annex 1.

In addition to Environmental Law No: 2872, several associated laws are complementary regarding the protection and sustainability of the environment as well as the protection of health and safety rights of people. Those laws which would be applicable to the proposed Sub-project are listed below:

- Expropriation Law No. 2942 (OG No:18215, dated 08.11.1983)
- Conservation of Cultural and Natural Assets Law No. 2863 (OG No:18113, dated 23.07.1983, and revised through the amendment issued on 27.07.2004)
- Highways Traffic Law No. 2918 (OG No:18195, dated 13.10.1983)
- Soil Conservation and Land Use Law No. 5403 (OG No:25880, dated 19.07.2005)
- Terrestrial Hunting Law No. 4915 (OG No:25165, dated 11.07.2003)
- Animal Protection Law No. 5199 (OG No:25509, dated 01.07.2004)
- Labor Law No. 4857 (OG No:25134, dated 10.06.2003)
- Occupational Health and Safety Law No. 6331 (OG No:28339, dated 30.06.2012)
- Social Insurance and General Health Insurance Law (OG No:26200 dated: 16.06.2006)

The regulations developed under the laws aim to specify and identify the procedures and principles of the management of environmental, social, labour and OHS aspects. Under the relevant laws, legislation relevant to the Sub-project are summarized in Table 2 below.

Table 2. Environmental, Social, Labor, Health and Safety Legislation

Regulations / Communiques	Official Journal Issue	Official Journal Date	Relevance/Implication for the Sub-project
Biodiversity Conservation and Protection of Nature			
Regulation on Protection of Wildlife and Wildlife Development Area	259637	08.11.2004	Measures to be taken for wildlife protection near to the Project area during the planning phase of the Project.
Chemicals and Other Dangerous Substances			
Regulation on Classification, Labelling, and Package of the Materials and Mixtures	28848	11.12.2013	Taking measures for chemicals and mixtures to be used during construction and operation phases.
Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals	30105	23.06.2017	Determination of chemicals to be used during the operation phase.
Regulation on the Control of Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs)	26739	27.12.2007	Usage of transformers, capacitors, electrical equipment including voltage regulators, switches, oil used in motors, old electrical devices or appliances containing PCB capacitors, fluorescent light ballasts during the operational phase.
Noise			
Environmental Noise Control Regulation	32029	30.11.2022	Determination of noise emissions and measures to be taken at construction and operation phases.
Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	26392	30.12.2006	Regulating the noise levels caused by noise sources within the Project site at the construction and operation phases.
Soil and Land Use			
Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	27605	08.06.2010	Determination of risks of soil contamination at construction and operation phases.
Regulation on Protection, Use, and Planning of Agricultural Lands	30265	09.12.2017	Management of change in the land use during the planning phase of the Sub-project.
Waste			
Regulation on Waste Management	29314	02.04.2015	Management of waste from generation to disposal without harming the environment and human health during construction and operation phases.
Zero Waste Regulation	30829	12.07.2019	General principles regarding the establishment, development, monitoring, financing, recording and certification of the zero-waste management system in line with sustainable development goals during construction and operation phases.
Regulation on Packaging Waste Control	30283	27.12.2017	Preventing the formation of packaging waste, reducing the amount of unavoidable packaging waste to be

Regulations / Communiques	Official Journal Issue	Official Journal Date	Relevance/Implication for the Sub-project
			disposed of using reuse, recycling and recovery methods in construction and operation phases.
Regulation on Waste Oil Management	30985	21.12.2019	Waste oils included in the definition of waste oil and the management, recovery, disposal of these wastes, precautions to be taken and notifications to be made
Regulation on Control of Waste Electrical and Electronic Equipment	28300	22.05.2012	Management of electrical and electronic equipment wastes during construction and operation phases.
Regulation on Control of Waste Batteries and Accumulators	25569	31.08.2004	Establishment of a collection system and management for the recovery or final disposal of waste batteries and accumulators.
Regulation on Control of End-of-life Tires	26357	25.11.2006	Establishing a collection and management system for ensuring the necessary regulations and standards in the management of end-of-life tires during the construction and operation phases.
Water and Wastewater			
Regulation on the Protection of Ground Waters against Pollution and Deterioration	28257	07.04.2012	Protection of groundwater sources against pollution during construction and operation phases.
Regulation on Wastewater Collection and Removal Systems	29940	06.01.2017	Procedures and principles regarding the planning, design and project design, construction and operation of wastewater collection and removal systems.
Structural Safety			
Regulation on the Protection of Buildings from Fire	26735	19.12.2007	Measures to be taken for fire protection during construction and operation phases.
Traffic			
Regulation on the Road Transportation of Hazardous Goods	28801	24.10.2013	Hazardous goods to be transported during construction and operation phase.
Regulation on Highway Traffic	23053	18.07.1997	Regulating speed limits of vehicles and machinery used during construction and operation phases.
Regulation on Traffic Signs	18789	19.06.1985	Regulating the traffic signs to be used during the construction and operation phases
Health and Safety and Labor			
Regulation on Emergency Situations in Workplaces	28681	18.06.2013	Preparation of emergency plans, prevention, protection, evacuation, firefighting, first aid and similar studies in workplaces.
Regulation on duties and responsibilities of Occupational Physicians and other medical personnel	28713	20.07.2013	Defines roles and responsibilities of Occupational physicians and the medial personnel
Regulation on Health and Safety at Construction Works	28786	05.10.2013	Measures to be taken during construction phase.

Regulations / Communiques	Official Journal Issue	Official Journal Date	Relevance/Implication for the Sub-project
Regulation on Health and Safety Conditions Regarding Use of Work Equipment	28628	25.04.2013	Measures to be taken during construction phase related to use of equipment.
Regulation on Health and Safety Precautions Regarding Working with Chemicals	28733	12.08.2013	Measures to be taken during construction and operation phase related to use of chemicals.
Regulation on Protection of Employees from the Hazards of Explosive Environments	28633	30.04.2013	Procedures and principles regarding the precautions to be taken in order to protect the employees from the dangers of explosive atmospheres that may occur in the workplaces in terms of health and safety.
Regulation on Health and Safety Regarding Temporary and Time-Limited Works	28744	23.08.2013	Protection of employees with a temporary or fixed-term employment contract at the same level as other employees in the workplace in terms of health and safety.
Regulation on Health and Safety Signs	28762	11.09.2013	Measures to be taken during construction and operation phases.
Regulation on Management of Dust	289812	05.11.2013	Measures to be taken to combat dust in terms of occupational health and safety to prevent the risks that may arise from dust in the workplaces and to ensure that the workers are protected from the effects of dust.
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	29204	13.12.2014	Preparation of safety data sheets to ensure effective control and surveillance against the negative effects of harmful substances and mixtures on human health and the environment during construction and operation phases.
Law on Occupational Health and Safety (6331)	28339	20.06.2012	Health and safety measures to be taken during construction and operation stages.
Regulation on Personal Protective Equipment	30761	01.05.2019	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Protection of Workers from Risks Created by Noise	28721	28.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Risk Assessment for Occupational Health and Safety	28512	29.12.2012	Determination of occupational health and safety risks occurring during construction and operation phases.
Regulation on Use of Personal Protective Equipment in Workplaces	28695	02.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on High Current Electrical Facilities	24246	30.11.2000	Covers measures regarding the safe installation, construction, operation and maintenance of high current electrical facilities.
Regulation on Manual Handling	28717	24.07.2013/	Defines the safe procedures for safe handling of goods and equipment using manual manpower.
Cultural Heritage			
Law on Protection of Cultural and Natural Assets	18113	23.07.1983	Although there will not be a major excavation on the project site, a chance

Regulations / Communiques	Official Journal Issue	Official Journal Date	Relevance/Implication for the Sub-project
			finds procedure will be in place at the construction phase.

1.3.2 International Standards

The Sub-project will be implemented in compliance with the requirements of the applicable national legislation and international agreements and conventions to which Türkiye is a party of, and in accordance with the following international requirements:

- WB Environmental and Social Framework (ESF, 2018) and the Environmental and Social Standards (ESSs) forming part of the ESF,
- WB Group General Environmental, Health and Safety Guidelines (EHSGs) (2007)
- GIIP
- ILBANK Environmental and Social Management System (ESMS).

International Agreements and Conventions:

The international agreements and conventions ratified by Türkiye are listed below:

- Paris Agreement (2021)
- UN Framework Convention on Climate Change (UNFCCC) (2004)
- Rio Declaration on Environment and Development and Statement on Forest Principles (1992)
- Convention on Biological Diversity (Rio Convention) (1992)
- Paris Convention on the Protection of the World Cultural and Natural Heritage (1975)
- Bern Convention on Protection of Europe's Wildlife and Living Environment (1982)
- Vienna Convention for the Protection of the Ozone Layer (1988)
- Montreal Protocol on Substances Depleting the Ozone Layer (1990)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (1996)
- UN Convention to Combat Desertification (1998)
- United Nations Europe Economic Commission Convention on Transboundary Effects of Industrial Accidents (2000)
- Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) (2001)
- Stockholm Convention on Persistent Organic Pollutant (2010)
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (1972)
- International Labor Organization (ILO) Convention on Forced Labor (1930)
- ILO Convention on Freedom of Association and Protection of the Right to Organize (1948)
- ILO Convention on Right to Organize and Collective Bargaining (1949)

- ILO Convention on Equal Remuneration (1951)
- ILO Convention on Abolition of Forced Labor (1957)
- ILO Convention on Discrimination (Employment and Occupation) (1958)
- ILO Convention on Worst Forms of Child Labor (1999)

2. SITE DESCRIPTION

2.1 Sub-project Location

The Sub-project is located in lot 5 of block 31478 Saraçoğlu neighborhood in the Karatay district of Konya Province. The Sub-project area for the PV panels is around 60 ha. The area of lot 5 of block 31478 is around 99.9 ha. The Sub-project area in general is characterized as being grazing land. Figure 1 below presents the overview of the Sub-project location.

The neighboring facilities and surrounding parcels around the Sub-project area are as shown in the Figure *2* and

Figure 3.

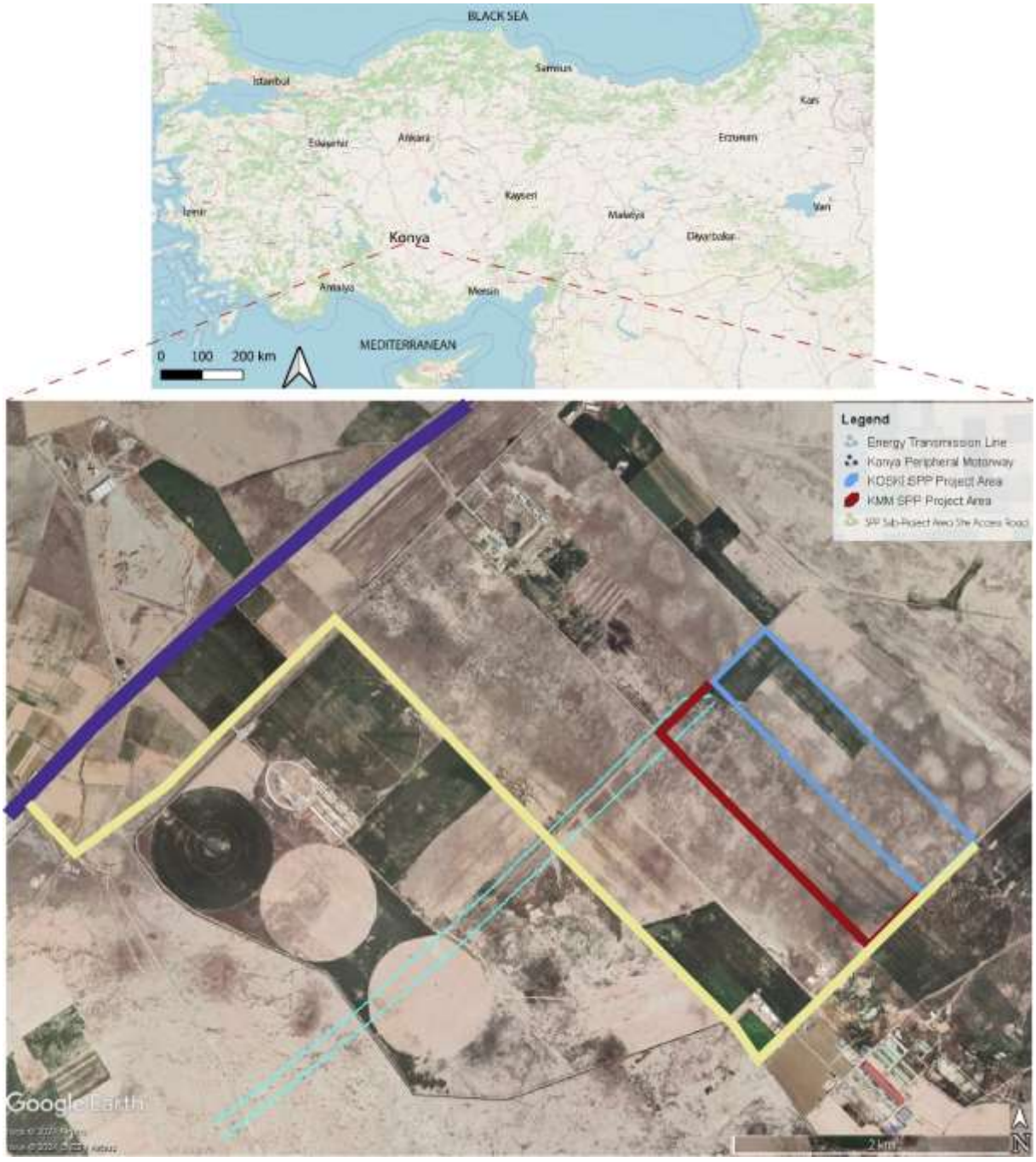


Figure 1. Geographical location of the Sub-project and its Components-1

Figure 2: Geographical location of the Sub-project and its Components-2

The site is located in an empty terrain that is surrounded by facilities as shown in Figure 3 .

Table 3: Facilities Around the Konya SPP Project Area

Surrounding Facilities	
Laranda Agriculture and Livestock Enterprise	0.8 km to the South
Konya Integrated Meat Farm (KONET)	1.7 km to the North
Panagro Aslım Farm	2.5 km to the Northwest
Konya Sanitary Landfill	4.4 km to the West

Figure 3: Neighboring Facilities

The Sub-project site is also bordered by pasture lands and grazing lands to the north and east. An industrial depot at 1,000 m and the municipal landfill at 2,500 m are other land spots in the surrounding. A parcel under the ownership of the Foundation for Children with Leukemia (LÖSEV) is located close to the Sub-project site as seen in the Figure 2.

Nearest settlements are Saraçoğlu Neighbourhood 8.1 km to the northwest, and Kaşınhanı Neighbourhood 7.5 km west of the site, Erler Neighborhood 5.9 km to the north. Please see Figure 4 for neighboring settlements.

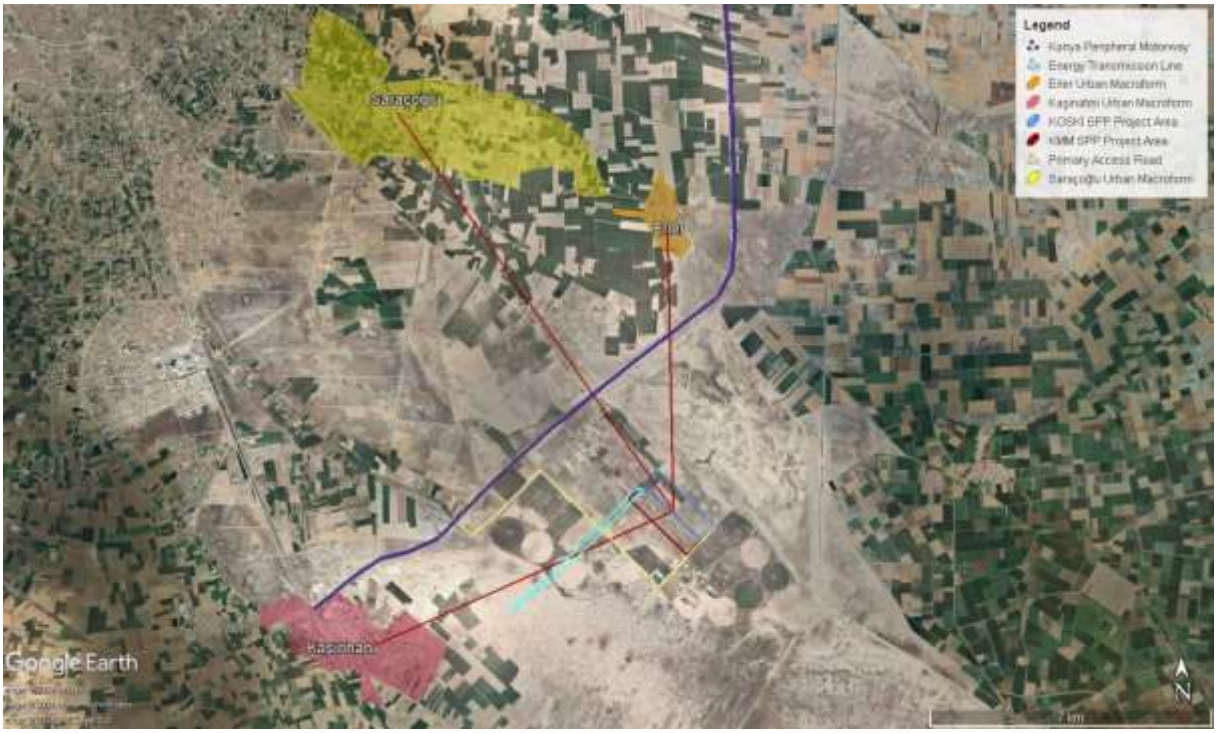


Figure 4: Nearest Settlements Around the SPP Sub-project

Table 4: Nearest Settlements Around the SPP Project Area

Nearest Settlements	
Saraçoğlu Neighborhood	8.1 km to the northwest
Kaşınhanı Neighborhood	7.5 km to the west
Erler Neighborhood	5.9 km to the north

2.2 Site Access Route

The Sub-project site is accessible via the Konya-Karaman Highway and existing secondary roads. Also, the access to the site is from the Konya Peripheral motorway, the route passes through the Torku Factory junction, Kaşınhanı landfill, and Laranda farm. Therefore, the primary access road will be used as shown in Figure 5.

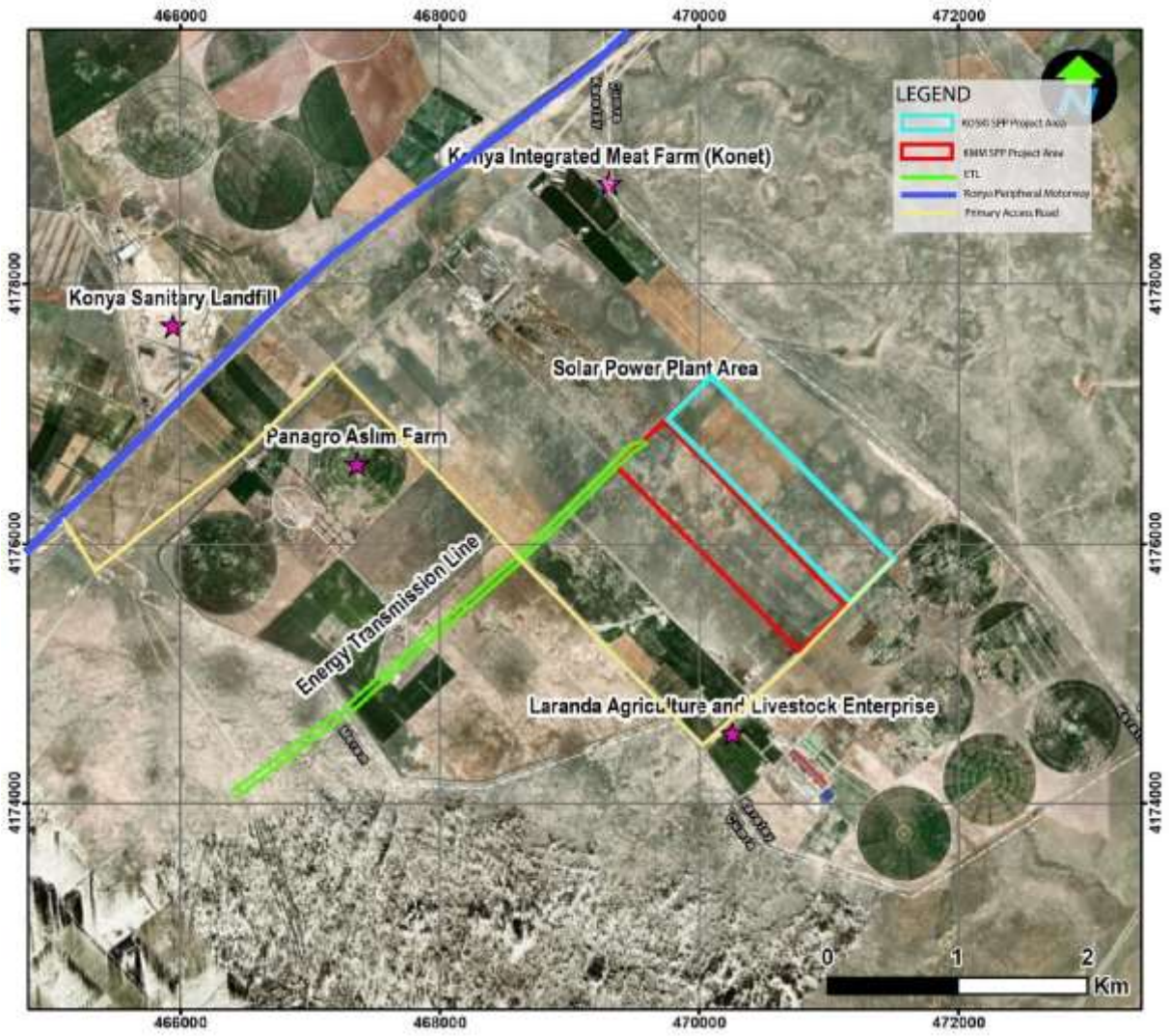


Figure 5: Access Route to the Site

Hence the primary access road will be the existing road. The road is asphalted and 12 meters wide and needs no improvement or expansion. Local people do not use the primary access road because it is far away from residential settlements and there are no schools or social facilities on the route. Surrounding facilities use the road. The main access road to the Sub-project area is used for Laranda Agriculture and Halil İbrahim Güçlü's business. According to discussions with Laranda Agriculture General Manager Ahmet Kemal Can and Halil İbrahim Güçlü, the use of the road during the construction and operation phases of the SPP project will not pose any issues. The road is sufficiently wide, and any potential risks will be mitigated through the implementation of traffic calming and control measures. There is no heavy traffic flow on this road, which is a zoning road. Please see for views of the Figure 6 from different angles.

Figure 6: Photos Location from the Existing Access Route

Photograph 1: Photos from Location 1-2

Photograph 2: Photos from Location 3-4

Photograph 3:Photos from Location 5-6

2.3 Characteristics of the Sub-project Area and Environss

The Sub-project site is located at an elevation about 1003-1004 m above sea level. The sub-project site shows the characteristics of grassslands typically seen in Karatay District in general.

An overview of the Sub-project site can be seen in a photo taken in July 2024 and shown in Figure 7 below.

Figure 7: An overview of the Sub-project Site

In geological terms, the Sub-project site is situated within the Quaternary-aged Konya Formation. The Sub-project site has a diverse geological history with rocks from different time periods that have undergone metamorphism, deformation, and faulting, shaping the landscape we see today. No natural disaster events have been recorded in the area, and there are no previous disaster decisions according to Law No. 7269.

2.4 Environmental Baseline

2.4.1 Physical Environment

Geology

The Sub-project site is situated within the Quaternary-aged Konya Formation. The Konya Formation is primarily composed of unconsolidated sediments deposited during the Quaternary period, which explains possible susceptibility to environmental hazards such as flooding, landslides, soil erosion, and groundwater contamination. There is no formation of sinkholes in the site and its immediate vicinity. Obruk Lake is located 63 km away from the project site. Obruk formations are not observed in and around the site.

No natural disaster events have been recorded in the area, and there are no previous disaster decisions according to Law No. 7269.

Topography

The terrain structure of the broader site location is generally characterized by a flat plain. This plain is intersected by the Bozdağ mountain range along the northwest-northeast axis. There are no lakes or reservoirs. Partial irrigation is carried out through channels from Lake Beyşehir and the Apa Dam. Although the region does not have the characteristics of a highland area, it is referred to as a highland, and there is a small Obruk Lake near the village of Obruk located at about 63 km NE of the Sub-project Site.

Surface Water

There are no surface water bodies in the close vicinity. A dry creek passes over the Sub-project site. A drainage channel can be seen, which was constructed to drain excess water from irrigation and rehabilitation of lands in the region. According to the geological survey report prepared in 2022, groundwater has been detected at depths of 1.5-6 meters at the Sub-project site.

Soil Characteristics

The Project site is characterized by red-brown soils, also known as Ferric Luvisols or Red Mediterranean Soils that typically have a medium to fine texture, with a well-developed granular structure. They are often clay-rich, which contributes to their ability to hold moisture and nutrients. Red-brown soils can support diverse plant communities, including grasslands, shrublands, and forests. The clay-rich composition of red-brown soils can contribute to soil stability and erosion control, helping to maintain ecosystem integrity. Red-brown soil ecosystems may be vulnerable to invasion by non-native plant species, which can outcompete native vegetation and disrupt ecosystem dynamics.

Land-use

According to the Corine 2018 Land Cover Data, the Sub-project site is located on natural grasslands, while the ETL passes through sparsely vegetated areas. Pastures extend to the south and east of the lands designated as natural grasslands. The Corine map in Figure 8 shows that the Sub-project location does not pose a restriction on pastures and grasslands, alternative lands for grazing are abundant in extent.

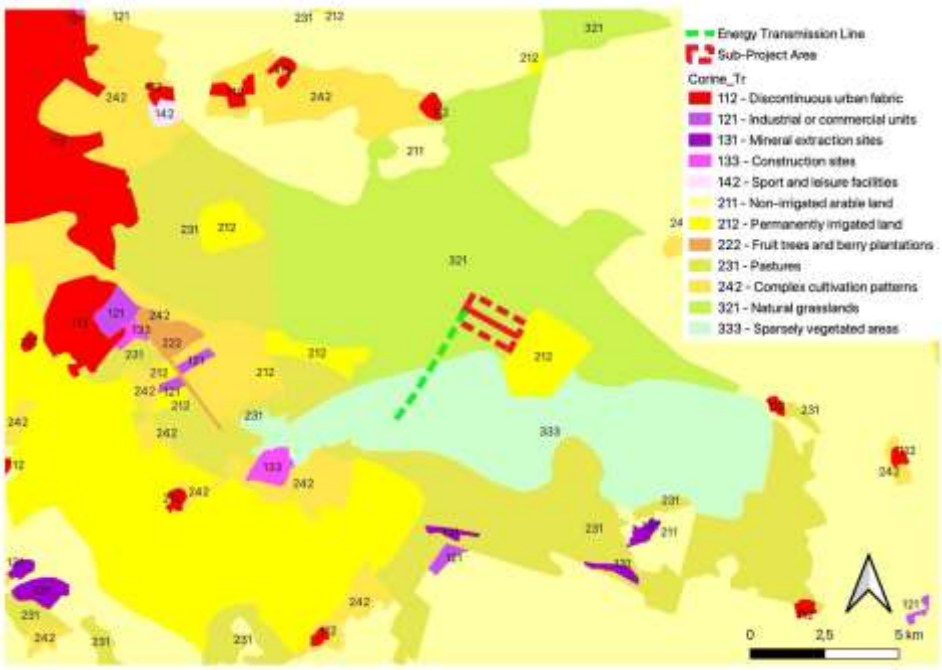


Figure 8: Land-use at the Sub-project Site and Surrounding Lands

2.4.2 Ecology and Biodiversity

Baseline information about ecology and biodiversity in this section is based on the EIA Reports dated June 2022. The ecological assessments were conducted by a group of academicians: Prof. Dr. Ali Erdoğan, ornithologist and ecologist; Prof. Dr. Mehmet Öz, herpetologist, Prof. Dr. Hakan Sert, mammal expert; Dr. İlker Çinbingel, flora expert and M. Süleyman Kaçar, wildlife expert and forest engineer. Site assessments for ecological observation were conducted in May 2022.

The Sub-project site is currently vacant and occasionally utilized as pasture, featuring a relatively low altitude (1003-1004 m) with predominantly flat topographic structure. It exhibits barren, saline soil devoid of stones or rocks, resembling a dry meadow habitat conducive to the growth of certain halophytic herbaceous plants. Notably, there are no water sources or moist meadows within or surrounding the project area, except for a drainage channel at its boundary. The drainage channel was built for the purpose of land rehabilitation by draining excess irrigation water.

Agricultural soil falls under Class VI, characterized by highly saline and arid conditions, currently used as degraded pasture land with limited halophytic herbaceous plants.

There is no continuous flowing water source, and the drainage canal passing through the southeast of the area, carries wastewater, not qualifying as drinking water for the wildlife species inhabiting the region.

Amphibians and Reptiles

These characteristics severely limit ecological habitats suitable for sheltering, feeding, and breeding amphibian and reptile species within the project area.

No amphibian or reptile species were observed during the site observations performed in May 202by Prof. Dr. Ali Erdoğan during the stage of EIA. However, agricultural and livestock facilities in cultivated

areas and their vicinity, especially to the west, southeast, and northwest of the project site, may provide habitat types suitable for the presence of certain reptile and amphibian species.

Based on literature review, 19 out of the approximately 165 species of amphibians and reptiles found in Türkiye have been identified to inhabit the vicinity of the project area. These are widespread and not endemic to the region. No endemic species were identified as of IUCN and Bern Convention categorizations as detailed in the respective EIA Reports.

Mammals

Characteristics of the project area do not possess features suitable to the feeding and breeding of mammal species as well. During field observations in May 2022 within the context of EIA, burrows of field mice and badgers were observed, although it is believed that these burrows are currently inactive and were used previously.

According to literature, 15 out of approximately 170 mammal species residing in Türkiye are found in the surrounding area of the project site. Notably, the most prominent species observed in the area include the fox (*Vulpes vulpes*), badger (*Meles meles*), and hare (*Lepus europaeus*). In addition; hedgehogs, blind mole rats and weasels are also known to inhabit the area as identified during field studies conducted for other solar energy projects in the region.

Regarding species such as blind mole, hedgehog, dormouse, and weasel which are predominant in the regions, there will be specific measures to protect the species. Blind moles mostly live underground. During the construction stage when ground preparations are made, the underground burrows of these populations in the area can be disturbed. Measures will be taken during earthworks in the areas where they are located. Hedgehogs hibernate from November to April, waking up and mating from April to November, and raising their young. The project site and its environs will be investigated to check and identify the places where they are found, and precautions will be taken during construction. Weasels also burrow underground. Therefore, when the locations where these animals are spotted and their burrows are identified, precautions will be taken.

Bats

During the site surveys in May 2022 during the EIA process, regarding bats, no suitable environments were observed, such as deep caves and hollows where bats could roost in the vicinity of the solar panels to be installed. However, agricultural and livestock facilities located to the south and north of the panels are creating suitable feeding opportunities for bat species. In this regard, the project site and the surrounding agricultural and livestock facilities serve as attraction for bats, there is a slight possibility of collision with the panels.

Birds

Based on ornithological observations in the project area and its surroundings by Pro. Dr. Ali Erdoğan in May 2022 during the process of environmental impact assessment, as well as an evaluation of the Türkiye Bird Migration Report, the project site lies in close proximity to the main migration route used by soaring migrant bird species in large flocks.

The prominent species comprise native and summer migrant bird species. Among them are the crested lark (*Galirida cristata*) and calandra lark (*Melanocorypha calandra*), barn swallows (*Hirundo rustica*),

common whitethroats (*Sylvia communis*) from warblers, Eurasian siskins (*Carduelis carduelis*), common chaffinches (*Fringilla coelebs*), and Eurasian greenfinches (*Carduelis cannabina*) from finches. Additionally, spotted flycatchers (*Muscicapa striata*) and European pied flycatchers (*Ficedula albicollis*) represent flycatchers, while common nightingales (Luscinia megarhynchos), Isabelline wheatears (Oenanthe isabellina), white wagtails (*Motacilla alba*), and yellow wagtails (*Motacilla flava*) stand out among wagtails. Furthermore, house sparrows (Passer domesticus), great tits (Parus major), and Eurasian blue tits (*Cyanistes caeruleus*) are notable among titmice, whereas red-backed shrikes (*Lanius collurio*) and woodchat shrikes (*Lanius senator*) represent shrikes. In addition, Eurasian blackbirds (*Turdus merula*) are observed from thrushes, hooded crows (*Corvus cornix*) and Eurasian magpies (Pica pica) from crows, and from buntings, common cirl buntings (*Emberiza cirlus*), corn buntings (*Emberiza calandra*), and black-headed buntings (*Emberiza melanocephala*), emphasizing the high-density populations of widely distributed species.

In addition to these findings of the EIA Report (2022), bird migration maps dated 2012 and prepared by the Directorate of Nature Conservation and National Parks, show that the Sub-project site is located on bird migration routes.

Flora

The site is comprised of fertilized soils and dry soils. Although herbaceous plants are encountered on the occasionally moist soils, the area stands out with its salt steppe character. However, the steppe and grassland vegetation are intertwined. Therefore, the steppe vegetation dominated by saline plants can be observed in general. Ruderal-waste areas and roadside are observed to include cosmopolitan species.

According to EUNIS, habitat types within the Project site and its surroundings are:

E	**Grasslands and lands dominated by forbs, mosses or lichens**
E6	Inland salt steppes
E6.11	Mediterranean *Limonium* salt steppes
J	**Constructed, industrial and other artificial habitats**
J4	Transport networks and other constructed hard-surfaced areas
J4.2	Road networks
J6	Waste deposits

The site is predominantly covered by halophytic steppe vegetation. Roadside vegetation limits the barren halophytic steppe cover of the area. On the other side of the road bordering the area, there is a drainage canal for wastewater, bounded by soil mounds. Outside the area, near the road border, there are areas with surface runoff showing moist conditions and ruderal areas where solid waste is observed.

During the floristic observations by Dr. İlker Çinbingel in May 2022, 45 flora samples were collected on and around the Project site. Out of the samples collected, only one species, *Onopordum davisii* is endemic, yet categorized as Least Concern (LC) according to IUCN. *Onopordum davisii* from the Asteraceae family is widely found in the Middle Kızılırmak Basin and lower Konya regions in Türkiye.

Among the flora and fauna species, there are no Critically Endangered (CE) or Endangered (En) species according to the IUCN Red List and there is no species that should be protected by international conventions such as Bern and CITES. As a result, there are no critical habitats in terms of flora and fauna species in the Project site.

Based on this assessment, it appears that the project site does not harbor critical habitats or species that would require special protection. Measures will still be taken during construction to minimize disturbances to wildlife and their habitats, particularly during the breeding season for birds and mammals. Additionally, monitoring programs will be implemented to assess the effectiveness of mitigation measures and ensure compliance with national regulatory requirements as well as international standards.

Protected Areas

While several protected areas exist in the Konya region, the closest ones are located at significant distances from the project site and are unlikely to be directly impacted by the solar power plant.

Major protected areas at respectively close to the Sub-project site are the 3 Key Biodiversity Areas (KBAs): Akyay Plain 14.5 km to the North West, Hotamış Marshes at 31 km to the South East and Hodulbaba Mountain at 30 km to the North East. Bozdağ Wildlife Reserve lies at 31 km to the North East. Please see Figure 9 for nearest protected areas.

Figure 9: Major Protected Areas in the Region

2.5 Social Baseline

In this section, which includes social structure assessments of the Project Impact Area, the social basis for determining the current social situation, risks, impacts, and mitigation measures is presented.

Social baseline studies have two aspects: desktop studies and fieldwork.

The desktop review includes an environmental and social assessment of existing environmental and social documents and existing strategic level assessment documents and supporting documents.

A review of existing Sub-project-specific documents was undertaken to understand the work that has already been done and to identify key issues to be further assessed in this ESMP. Statistical data is sourced from TurkSTAT 2024 results.

Characteristics of the nearby communities in terms of population, economy and social and physical infrastructure is described based on the initial consultations with the Mukhtars of Saraçoğlu, Kaşınhanı and Erler Neighborhoods in May 2024 as well as individuals including a resident of Saraçoğlu Neighborhood and a livestock grazer. In the interview with a citizen from Saraçoğlu neighborhood, stated that he was positive about the SPP project. He stated that the Sub-project site and its surroundings are unproductive lands and there are enough pasture areas in the vicinity. He stated that he does not go to the Sub-project site much and that the SPP project will be beneficial as it is renewable energy. In the interview with the shepherd, shepherd stated that he grazes in the area from time to time, but there is a lot of pasture area in this region. He also stated that the Sub-project area is not fertile land. He does not think that anyone will be disturbed by the Sub-project.

The social baseline of the Sub-project provides an overview of the population, demographic characteristics, health and education services, land use/land acquisition, cultural heritage, livelihoods of local people, existing infrastructure system, and vulnerable groups in the neighborhoods in the Sub-project impact area.

The environmental and social assessment will be conducted and consider, in an integrated way, all relevant direct, indirect, and cumulative environmental and social risks and impacts of the project, including those specifically identified under ESS1- ESS10. Accordingly, the “Project area of influence” (AoI) is determined. Based on this social baseline scope and potential Sub-project impacts, the Sub-project's social Area of Influence (AoI) boundaries have also been determined. Kaşınhanı, Erler and Saraçoğlu neighborhoods are the surrounding neighborhoods around the Sub-project site. The nearest neighborhood is Erler neighborhood which is 5.9 km away from the Sub-project site. The farthest neighborhood is Saraçoğlu neighborhood which is 8.1 km away from the Sub-project site. Erler, Saraçoğlu and Kaşınhanı neighborhoods are located in the Sub-project’s Area of Influence boundaries due to the Sub-project’s social and environmental impacts. Table 5 explains the details of the potential impacts/risks to the neighborhoods in the Area of Influence.

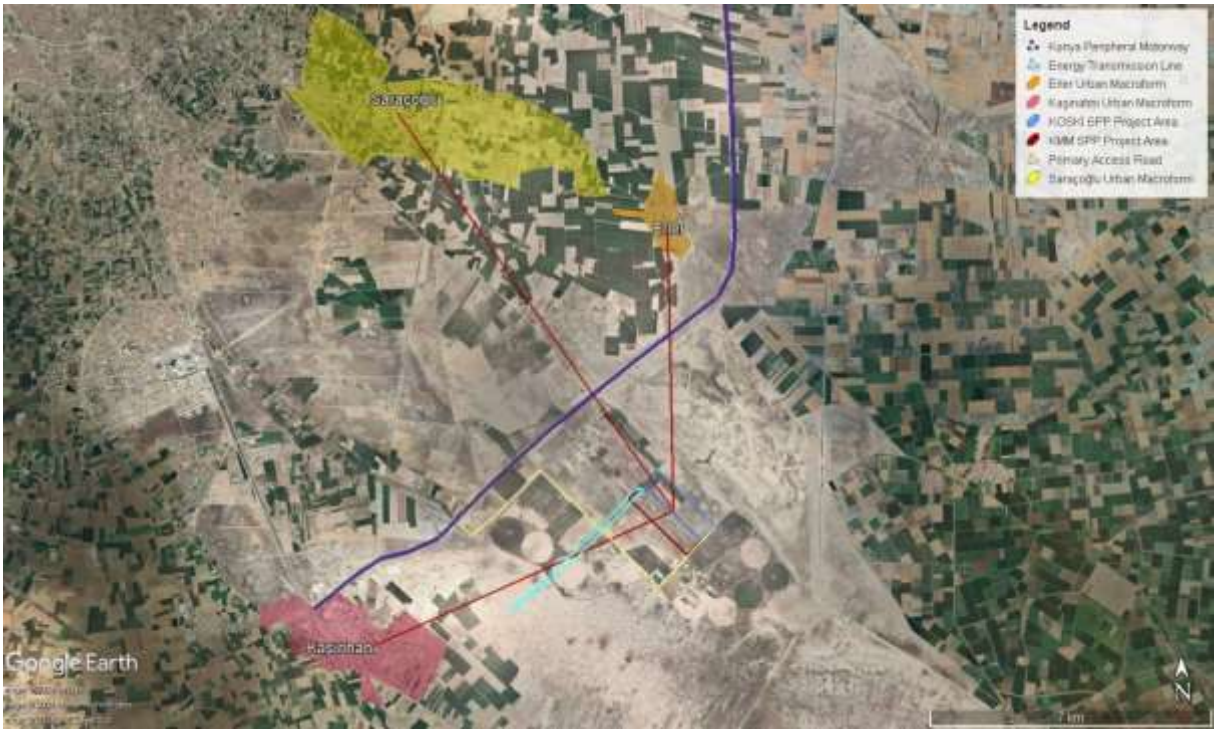


Figure 10: Neighborhoods in Area of Influence

The social AoI of the Sub-project has been determined by taking into account the direct and indirect effects of the Sub-project, and in addition to the neighborhoods (Kaşınhanı, Erler and Saraçoğlu) in the Area of influence that may be exposed to negative effects that may arise from the construction and operation activities of the Sub-project, the settlements that may be positively affected by local employment and local purchasing opportunities have also been defined within the scope of the AoI.

This AoI is highly impact dependent, such as an emission source's area of influence might be found with a dispersion model, while a wastewater discharge's area of influence is related to the characteristics of the effluent and its discharge point. Thus, in the ESMP, the Sub-project's AoI is defined according to the impact type and magnitude and impact assessment done. Potentially Affected Parties particularly for Saraçoğlu, Erler and Kaşınahnı Neighborhoods in the close vicinity of the Sub-project area that might be of the primary receptors of the impacts such as odour, noise and dust are identified based on the detailed impact assessment results.

Potential impacts/risks to the neighborhoods in the impact area are described in the table below:

Table 5: Potential Impacts/risks to the Neighborhoods in the Area of Influence

Settlement	Erler	Kaşınhanı	Saraçoğlu
Potential impact/risk	Potential impacts: Traffic, noise generation, air pollution, life and fire risks, labor influx, employment opportunities, local procurement	Potential Impacts: Traffic, noise generation, air pollution, life and fire risks, labor influx, employment opportunities, local procurement	Potential Impacts: Traffic, noise generation, air pollution, employment opportunities, local procurement

Area of Influence

The social influence area consists of Saraçoğlu, Kaşınhanı and Erler neighborhoods and was chosen due to the grazing activities of the people who use the area around the field as pasture from occasionally and the environmental infrastructure factors such as the health infrastructure and waste collection services of the surrounding neighborhoods. Potential risks/impacts seen in Table 5 justifies why these neighborhoods are within the impact area. The Social Baseline Summary Table for the neighborhoods whose information is given above is given in Table 6.

Table 6: Social Baseline Summary Table

Data	Erler	Kaşınhanı	Saraçoğlu
Drinking Water Source	KOSKI Network Water	KOSKI Network Water	KOSKI Network Water
Irrigation Water Source	Groundwater	Groundwater	Groundwater
Wastewater Infrastructure	Available	Available	Available
Waste management	Available	Available	Available
Public Transportation	Available	Available	Available
Electricity Infrastructure	Available	Available	Available
Healthcare Services	Available	Available	Available
Educational Services	Available	Available	Available
Livelihood	Agriculture, Livestock, City Labor	Agriculture, Livestock	Agriculture, Livestock, City Labor
Female Population	4286	1,989	3,978
Male Population	4,296	1,952	3,986
Syrian Immigrant	500-600	40-50	80
Disabled (People with physical and mental disabilities, chronic illnesses such as hearth, kidney disease etc.) Individuals	615	288	606

Source: Konya Metropolitan Municipality, 2024

Population and Demography

Konya Province ranks as the 6th province of Türkiye in terms of total population, as of 2023 with its population of 2,320,241 according to the results of the address-based population registration system for 2023 (TurkStat, 2024).

The neighborhoods in the Area of influence for the Sub-project are located in Karatay, and Meram districts. Karatay District with 2023 population of 375,919 is part of the metropolitan area, and Meram with 2023 population of 347,341 are outside the metropolitan part of the province.

The population of Saraçoğlu Neighborhood includes 3,983 men and 3,752 women, along with a significant presence of Syrian immigrants, numbering around 80 people. The population of Erler Neighborhood includes 3,889 women and 4,180 men, with a considerable number of Syrian immigrants, estimated to be between 500 and 600 people. In the Kaşnhanı neighborhood, there are 1,893 women and

2,016 men. The number of Syrian immigrants here is lower, with an estimated 40 to 50 residing in the area. The 2023 population values can be seen in

Table **7.**

Population	Erler	Kaşınhanı	Saraçoğlu
Female Population	3,889	1,893	3,752
Male Population	4,180	2,016	3,983
Total	8,069	3,909	7,735

According to mukhtars of Erler, Kaşınhanı, Saraçoğlu Neighborhoods in the AoI, the population of the neighborhoods increased along with received migration in the recent years. According to the 2023 TurkStat[2] reports for Konya province, the primary reasons for migration, in order of prevalence, are education, starting/finding a job, job transfer/job change, family dependence, better housing and living conditions, starting a job/finding a job, family reasons, returning, purchasing a home, health/care, retirement, other, and unknown reasons. The main location of immigrants are coming from Türkiye's east regions. The people who arrived these neighborhoods deal with agriculture and livestock farming. The main reason for the immigration of local/international immigrants is, to achieve a better economic and social life. The male/female ratio is about equal.

Table 7. Population Values of Neighborhoods in the Area of influence

Population	Erler	Kaşınhanı	Saraçoğlu
Female Population	3,889	1,893	3,752
Male Population	4,180	2,016	3,983
Total	8,069	3,909	7,735

Source: TUIK, 2023

Local Economy and Livelihoods

Based on the information from the Karatay District Report of Mevlana Development Agency (2019) the local economy is mainly based on agriculture and livestock breeding in the whole Karatay district. There are people working in waged works mainly in construction sector as well. As stated by the mukhtar of Saraçoğlu Neighborhood, agricultural workers from outside are used on seasonal basis. They are mostly

[2] İç Göç İstatikleri, 2023
https://data.tuik.gov.tr/Bulten/Index?p=Ic-Goc-Istatistikleri-2023-53676

from Van, Kars, Ağrı as well as from other districts of Konya. As stated by the mukhtar of Erler Neighborhood, local economy is mainly based on agriculture and livestock breeding and waged workers employed at the city and industry sector. Also, agriculture and livestock breeding activities are main economic activities of Kaşınhanı Neighborhood, and a significant portion of the population also works in the city center. Table 8 shows three major income sources in the AoI.

Table 8. Local Economy in the Area of influence

Settlements/District	Erler/Karatay	Kaşınhanı/Meram	Saraçoğlu/Karatay
Livelihood	Agriculture Livestock breeding Waged workers employed at the city	Agriculture Livestock breeding	Agriculture Livestock breeding Waged workers employed at the city

Source: Field Study, 2024

As stated by the mukhtars of Saraçoğlu, Erler and Kaşınhanı neighborhoods; locals used for grazing sheep, goats and cattle in the past.

According to General Directorate of Land Registry and Cadastre, approximately 14,000 hectares of land around the Sub-project area is classified as pasture land (Figure 11). Pasture areas are located around the Sub-project site and the neighborhoods around the Sub-project provide alternative grazing areas for possible grazing activities. According to the information provided by Erler, Saraçoğlu and Kaşınhanı neighborhood mukhtars who stated that grazing was observed in this area in the past, the Sub-project site is quite small compared to the surrounding pasture areas, remaining around 200 hectares. The availability of alternative grazing areas around the Sub-project and the fact that the main livelihood activity of the surrounding neighborhoods is not based on grazing activities will not lead to a possible loss of income.

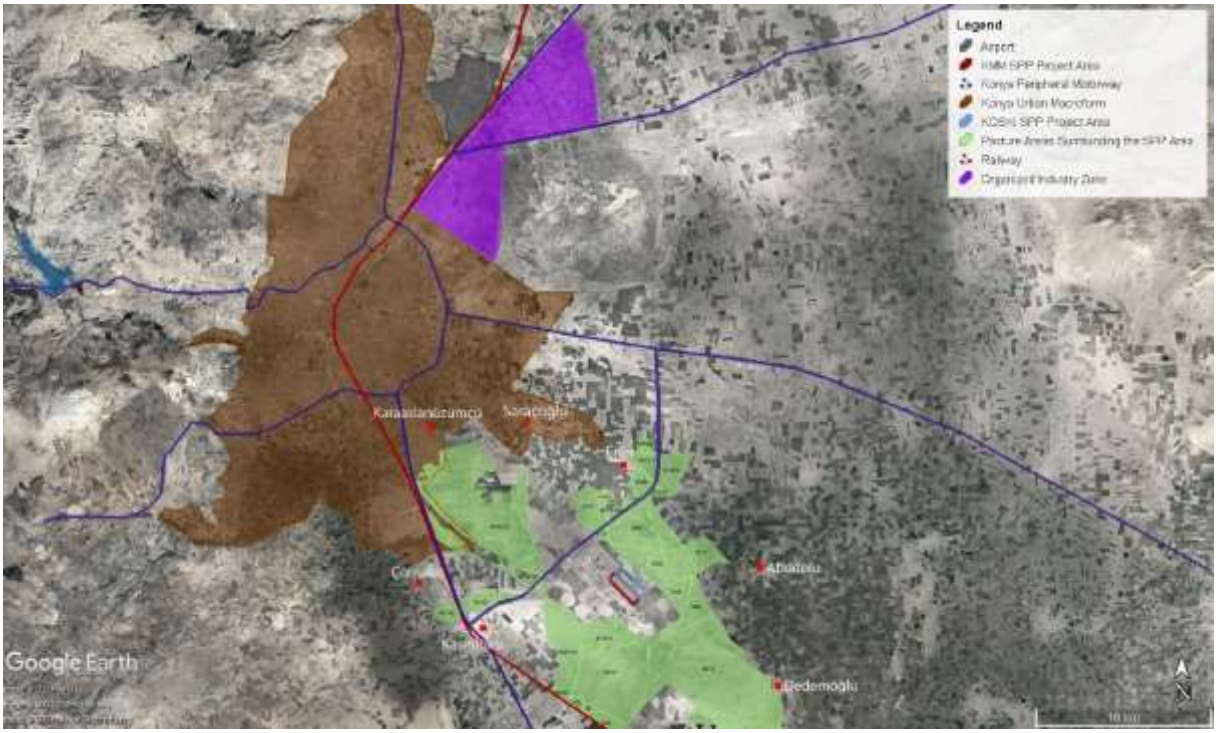


Figure 11: Pasture Areas Surrounding the SPP Project Area

Education and Health Services

Erler, Kaşınahnı and Saraçoğlu neighborhoods are located in the Area of Influence. Saraçoğlu Neighborhood has 2 primary schools and 1 secondary school. The number of school-aged children is 1411. Erler Neighborhood has 1 primary school and 1 secondary school, and number of school-aged children is 1268. Kaşınhanı neighborhood has 1 primary school and 2 secondary schools, and number of school-aged children is 689. There is no transport education in these neighborhoods and education services are far from the Sub-project location.

There are no health service facilities in Saraçoğlu Neighborhood. There is a family health center both in Kaşınhanı and Erler Neighborhood. Also, Konya City Hospital is accessible in each of these neighborhoods, approximately 20-30 minutes.

Table 9: Education and Health Services in the Neighborhoods of Area of influence

Neighborhoods	Health Facility (PHC)	Number of Schools	Number of Students
Erler	1	2	1268
Kaşınhanı	1	3	689
Saraçoğlu	0	3	1411

Source: Field Study, 2024

Cultural Heritage

The Saraçoğlu area in Konya does not have any notable cultural heritage or historical landmarks of significance. Unlike other regions in Konya that are rich in Seljuk architecture or tied to the legacy of Mevlana Rumi, Saraçoğlu is primarily a residential and agricultural area. Its development has been focused on local livelihoods such as farming and livestock, rather than cultural or historical preservation. As a result, Saraçoğlu lacks any distinct cultural monuments, historical sites, or traditions that are often associated with heritage tourism in other parts of Konya. The important cultural heritages around the Sub-project site are Kaşınhanı Train station which is 8.6 km far away from the Sub-project site, Çatalhöyük is 15 km, Abditolu Mound is 6.9 km, and Kurtbaba Mound is 9 km away from the Sub-project site. There is no cultural heritage within the Sub-project site.

Figure 12: Cultural Heritage in the Sub-project Site

Current Land Use Status

The Area of influence of the Sub-project is based on grazing activities of people who occasionally use the site environs as pasture and the environmental infrastructure such as health infrastructure and waste collection services of the surrounding neighborhoods. There are no fixed boundaries for local people to graze their livestock and the Sub-project site environs is sufficiently large to allow for alternative grazing locations. Based on interviews with Saraçoğlu Neighborhood Mukhtar, the Sub-project site environs are occasionally used by shepherds from Saraçoğlu Erler and Kaşınhanı Neighborhoods given their relative proximities. Around the Sub-project site, there are alternative pasture areas for grazing activities. There are approximately 14.000 ha of pasture lands which are most accessible and close then the project site (Figure 11). According to interviews with mukhtars of neighborhoods which are in the Area of influence and surroundings neighborhoods, shepherds mostly choose the close pasture areas for grazing.

There are no any agricultural activities within the Sub-project site. The Sub-project involves the construction of the "KOSKI Solar Power Plant" (49,.28 MWp / 38.5 MWe) in Karatay, Konya. An

initial request was made to assess the land classification of parcel 31478/5, confirming the area as "Kuru Marjinal Tarım Arazisi" (Marginal Dry Agricultural Land) (Annex 3). The Environmental Impact Assessment (EIA) process was conducted, and after review, the EIA report was deemed suitable (Annex 1). The EIA approval represents positive opinion of all consulted parties including Ministry of Agriculture and Forestry for implementation of the project on the designated land. When the permission letter is received, it will be submitted to ILBANK by PIU of KMM. As mentioned before, KMM PIU will manage the official correspondence based on the protocol between KOSKI and KMM in Annex 4. In the additional protocol between KOSKI and KMM, it is stated that KMM will conduct the operation activities during the 30-year operation period.

Access and infrastructure

Access roads that lead to the neighborhoods are in poor condition, which is one of the major problems stated by the Saraçoğlu Neighborhood Mukhtar consulted.

Drinking water is supplied from the city network and irrigation water for the overall population in Saraçoğlu, Erler and Kaşınhanı neighborhoods are supplied from wells (Table 6). Saraçoğlu, Erler and Kaşınhanı neighborhoods are connected to the sewerage network and connected to Konya Metropolitan Waste Treatment Plant, while cesspits are present where connection is lacking. Waste collection is by KMM, and final disposal is at Kaşınhanı landfill. All settlements in the AoI have access to electricity (Table 5). Septic tank cleaning and operation are also carried out by the KMM. It should also be noted that there are no septic tanks on the current route of the Sub-project that would cause problems for the people of the surrounding neighborhoods in case of damage. Coal and natural gas are used for heating in wintertime.

Mass transportation is available in all neighborhoods in the AoI.

Local issues

According to Saraçoğlu Neighborhood Mukhtar, main environmental problems in general for the communities are odor from livestock and agriculture wastes, and noise from equipment used at these facilities even in the night times.

The most crucial issues are poor quality of roads and lack of health facilities and social facilities. Main concern of the local population is that the traffic and transportation vehicles may cause nuisance such as dust and damage on agriculture fields.

Vulnerable Groups

Vulnerable groups in the Area of influence comprise of:

1. **Disabled individuals:** Construction activities can disrupt accessibility routes and restrict mobility. They may have special needs for access to participation activities.
2. **People over 65 years of age:** Construction activities can disrupt older people's daily routines and access to basic services, potentially causing discomfort or stress. They may have special needs for access to participation activities.
3. **Immigrants and Refugees:** Refugees may have difficult living conditions and limited resources, making them more susceptible to the impacts of the Sub-project. Their legal status and lack of access to certain services can also heighten their vulnerability.

4. **Female head of households:** Female heads of households with special needs may have limited participation in consultations. The mukhtars and KMM do not know the exact data on the number of female head of households, but an approximate number was provided by the AoI Neighborhoods' mukhtars. The number of female households is approximately 50 households in Saraçoğlu and Erler Neighborhoods, and approximately 10-15 households in Kaşınhanı Neighborhood.

There are disabled individuals and people with chronic illnesses or in need of special care in the neighborhoods in AoI. According to the information obtained from Konya Metropolitan Municipality Disabled and Elderly Services Branch Directorate total number of this group is given in the Table 10 . Disabled individual's category includes diseas such as hearth disease and kidney disease. Regarding refugees, Table 10 gives a profile of the neighborhoods, based on data from respective mukhtars. Approximately 730 refugees live in the Area of influence. The number of female head households is not registered either KMM or mukhtars of Neighborhoods in the AoI. Therefore, there is no official record of this vulnerable group.

Table 10: Vulnerable Groups in the Social Area of Influence

Vulnerable Groups	Erler	Kaşınhanı	Saraçoğlu
Refugees	500-600 (No data about nationality)	40-50 (20-25 Syrians 20-25 Afghans)	80 (50 Syrians 30 Afghans)
Disabled individuals	615	288	606
People over 65 years of age	282	336	374

Source: Interviews with Mukhtars of Neighborhoods in the AoI

3. SUB-PROJECT DESCRIPTION AND ACTIVITIES

The Sub-project "Solar (Photovoltaic) Power Plant Project of KOSKI (38.5 MWe) will be located in Saraçoğlu neighborhood of Karatay district in Konya province. Konya SPP Project consist of two sub-projects of KMM's SPP and KOSKI's SPP. Table 11 presents the characteristics details of the Sub-project.

Table 11: Solar Power Plant Characteristics

Capacity	KOSKI Sub-project	Konya SPP Project (Total)
Installed capacity (MWp)	49,28	92.4
Connection power (MWe)	38,5	70
Electricity generation (GWh/yr)	83,6	152,5
Carbon reduction (tons/year)	26,370	46,370

The Sub-project is comprised of construction of a solar power plant.Sub-project will be interconnected via a single substation located within KMM's parcel, which is lot 3 of block 31478 and the energy will be transmitted through a 4.5 km 154 kV Energy Transmission Line (ETL). The ETL is an associated facility for the sub-project.

3.1 Description of Activities

Construction Activities

Minimal Earthworks: The construction activities will involve no soil stripping, land leveling, excavation, or filling. This approach minimizes land disturbance and reduces environmental impacts.

Cable Installation: Electrical cables will be installed on the ground surface rather than buried, further reducing the need for excavation and preserving the natural state of the site.

Installation of PV Module Supports: The steel support structures for the photovoltaic (PV) modules will be rammed directly into the ground, avoiding the need for concrete foundations and minimizing soil disruption.

Drainage System: The only significant infrastructure development at the Sub-project site will be a drainage system designed to manage rainwater runoff, preventing water accumulation and ensuring site stability.

Construction of Administrative and Control Buildings: An administrative building and a substation control room will be constructed using reinforced concrete on flat foundations. These buildings will have no basements, reducing the need for deep foundation work and associated soil disturbance.

Warehouse Construction: A warehouse will be constructed with a steel structure and without a concrete foundation. This design choice will further minimize construction impacts on the ground.

Gravel Covering: Approximately 9,000 m^3 of gravel will be laid across the entire surface of the Sub-project site. This gravel layer will help stabilize the ground, manage dust, and facilitate effective drainage.

Operation Activities

Within the project’s operation and maintenance framework, a dedicated team of nine personnel will be responsible for ensuring the smooth functioning and upkeep of the facility. This team consists of one plant manager, who will oversee the entire operation, and four operation personnel, who will handle the daily operation of the plant. Additionally, four maintenance personnel will be tasked with the routine upkeep, ensuring that all equipment and systems remain in optimal working condition.

One of the critical components of the project design is the inclusion of a demineralization unit. This unit will supply demineralized (demin) water, which will be used for cleaning the solar panels. The use of demin water is essential for preventing mineral build-up on the panels, which could otherwise reduce their efficiency. Importantly, no chemicals will be used during the panel cleaning process, aligning with environmental sustainability goals and reducing the potential for contamination or harm to the surrounding ecosystem. The environmentally conscious choice of using only demin water underscores the project's commitment to minimizing its ecological footprint.

In terms of site security, comprehensive measures have been integrated into the project. These include fencing and gated entry points to restrict unauthorized access. In the operation phase of the Sub-project, the project site will be fenced. Additionally, security cameras will be installed throughout the site to ensure 24/7 surveillance and monitoring, thus enhancing the overall safety of the facility. A control building equipped with modern systems will manage the plant’s operations, including overseeing the security and monitoring of all critical systems. 4 security guards will be on-site at this stage.

Vegetation control will also be a key aspect of maintaining the site. Proper methods, such as regular trimming and clearing of overgrowth, will be implemented to prevent any interference with the solar panels or equipment. This ensures that the plant can operate without obstructions, and it contributes to fire safety and operational efficiency. Operation facilities are described in

Table 12.

Table 12: Operation Facilities

Component	Characteristics
Solar panels	#89,400
Inverters, transformers, etc.	8 Inverters 8 Step Up Transformers
Control room, building, system, etc.	SCADA System (Connected to Control Room in KMM Project)
Fire preparedness and firefighting facilities	Fire Fighting Extingusher
Security facilities	Security Gate House and CCTV Monitoring System located in Security Gate House and in Administration Building. In addition, Project site is surrounded by site fence. Security staff will be on site.
Administration Building	Project has one administration building for plant management.
Storage Area	There is a 2000m^2 storage area located in Project site.

A water treatment unit will be installed in order to produce demineralized water for the cleaning of the panels. No chemicals or cleaning solutions will be used. Water for cleaning panels will be supplied by KOSKI with a water pipeline connection to the current pipeline readily serving the neighboring facilities.

3.2 Sub-project Details

The layout of the Sub-project of the KOSKI SPP is given in Figure 13.

Figure 13: KOSKI Sub-project General Layout

The planned Sub-project will be equipped with Topcon N-type modules with 30° tilt, 25° azimuth angle and will include various elements to capture solar energy and convert it into electricity:

- Solar Panels (Photovoltaic Cells): These are the primary components that capture sunlight and convert it into electricity through the photovoltaic effect.

- Steel Structures: Steel structures are erected to support the solar panels, which are then installed on these structures.
- Anti-reflective coating (ARC) will be applied to the photovoltaic cells in order to help minimize the amount of light reflected from the surface, thereby reducing glare.

3.3 Associated Facilities

The Associated Facilities (AF) refer to infrastructure, equipment, or services that support the Subproject's implementation but are not directly funded as part of it. These facilities are essential for the successful functioning of the main project, providing necessary support in terms of logistical, operational, or technical resources. While they are integral to the broader project ecosystem, the funding and development of these facilities are managed separately.

Sub-station

A sub-station that will be located on lot 3 of block 31478, will play a crucial role in the overall functionality of the plant. It will be housed in a single-storey building, designed to accommodate the necessary electrical equipment and control systems and also allowing room for maintenance and operational activities. The building will have multiple compartments, each serving a specific function within the substation. Figure 14 shows the location of the sub-station within the Sub-project layout.

Figure 14: Energy Transmission Line Layout

The substation will comprise of the following equipment:

Transformer which will serve to step up the voltage of the electricity generated by the solar panels. This is necessary for efficient long-distance transmission of electricity through power lines.

Energy Transmission Line (ETL)

The Sub-project also includes construction of a high voltage 154 kV ETL of ~4.5 km as seen in Figure 15. Electricity generated at the Sub-project will be connected to the Turkish National Grid via the energy transmission line by connecting to existing Alibeyhöyüğü-Alakova power line.

Figure 15: Approved Trasnmission Line Layout Drawing

The energy transmission line (ETL) will consist of 18 pylon and cable lines containing insulators for distribution of electric power. Land requirement per pylon varies between 0.5 to 10 sqm.

The ETL will be connected to national grid and supply electricity to interconnected power grid in terms of national and European Network of Transmission System Operators system requirements. The system is designed based on Türkiye's grid code. The ETL final pylon is located in Sub-project site. The details of the land requirement and acquisition of ETL location is given in Section 3 in the Land Acquisition Status section.

Switchgear which will consist of switches, fuses, circuit breakers, and other electrical devices that control, protect, and isolate electrical equipment within the substation. This will ensure the safety and reliability of the power distribution process.

Monitoring and Control Systems with monitoring and control systems that will allow operators to remotely monitor the performance of the solar power plant, manage energy production, and respond to any operational issues in real-time.

Protection Equipment that will be used to safeguard the equipment and personnel from electrical faults and overloads, substations are equipped with protection equipment such as relays, surge arresters, and grounding systems.

Communication Infrastructure such as SCADA (Supervisory Control and Data Acquisition) systems, which enable operators to remotely monitor and control various aspects of the power plant's operation.

A battery storage unit will be placed adjacent to the substation.

3.4 Temporary Sub-project Facilities

The site layout plan will be prepared at the stage of tendering as a “Design, Supply, and Installation” project. The contractor will be required to do the final designs and provide a site layout plan showing the locations for the camp site, lodging area, entrance, material storage, waste storage, etc. In “design, supply, installation” tenders, after the tender is awarded, the chosen contractor will develop the detailed design as part of their contractual obligations. Hence, the specific layout and design details will be developed and finalized during the implementation phase of the Sub-project, not before the tendering process.

3.5 Workforce Requirements

Construction activities of KOSKI Sub-project labours will accommodate at the camp site and at the camp site 60 site staff will be accommodating until completion of construction. Lodging will be provided at the camp site. After the contractor company is determined through tender, the company will set up a camp area for workers in the Sub-project area.

11 employees will be working during the 30-years operation time of the solar power plant.

3.6 Land Acquisition Status

The land required for the solar power plant was allocated by the General Directorate of National Property (GDNP) in November 2023 for a period of two years in order to commence and finalize the construction of the solar power plant. Land Titles for lot 3 of block 31478 and lot 5 of block 31478 can be seen in Annex 2*;* and Letter of Approval for Non-Agricultural Land-use in Annex 3.

KMM and KOSKI have secured land use rights from the GDNP on 09 November 2023, granting a two-year allocation of the parcels situated in Karatay District for the purpose of initiating and completing the construction of a solar power plant. Each parcel is allocated to its corresponding administration respectively. The Sub-project of KMM’s solar power plant project parcel which includes substation located lot 3 of block 31478 is allocated to KMM and KOSKI’s solar power plant which is located on lot 5 of block 31478 is allocated to KOSKI. The General Directorate of National Real Estate has provisionally allocated 100 ha land for a period of 2 (two) years for the establishment of an "unlicensed solar energy plant," provided that the generated electricity is used exclusively for municipal services and not for commercial purposes, and necessary permits are obtained from the relevant authorities. If within the two-year period, an investment project is prepared, included in the investment program, and construction begins on the designated land, a request will be made for the provisional allocation to be converted into a definitive allocation for the duration of operation. The definitive allocation process will be carried after the successful completion of the SPP Project; once the provisional acceptance certificate is received.

The land acquisition process of the ETL which is an associated facility of the sub-project of KOSKI has been completed along with the Presidential Decision No. 8733 published in the Official Journal dated 17 July 2024; Issue: 32604).

In the Karatay district, several parcels in the Saraçoğlu neighborhood are affected:

- Block No. 31478: Parcel No. 3 includes 19,100 square meters of land and 589 square meters designated as a tower location. This parcel is a KMM SPP Sub-project parcel. Both areas are in the same parcel, which is treasury land allocated to KMM. This parcel was subdivided on 12.06.2024 and the new parcel movements became 31478/7, 31478/8, 31478/9, 31478/10. 31478/8, 31478/9, and 31478/10 are the parcels pylon located.

- Block No. 31474: Parcel No. 1 encompasses 19,724 square meters of land and 179 square meters as a tower location, both under treasury land. This parcel is allocated to KONET. KONET was informed and consent was obtained (Annex 5).

- Block No. 31477: Parcel No. 3 consists of 19,277 square meters of land and 353 square meters for a tower location, both designated as treasury land and allocated to KMM. This parcel also was subdivided on 26.06.2024 and new parcel movements became 31477/7, 31477/8, 31477/9. 31478/8 and 31478/9 are the parcels pylons located.

- Additionally, Block No. 31477: Parcel No. 5 includes 13,737 square meters of land and 299 square meters as a tower location, also treasury land. Parcel No.5 is allocated to an individual (Halil İbrahim Güçlü), who is facilitating Laranda Agriculture and Livestock Farming as illustrated in the figure below. Halil İbrahim Güçlü was informed about this issue and an agreement was reached (Annex 5).

- Block No. 31475: Parcel No. 5 contains 19,306 square meters of land and 359 square meters for a tower location, both under treasury land, and allocated to KMM. This parcel was subdivided on 12.06.2024 and new parcel movements became 31475/16, 31475/17, 31475/18. 31475/17 and 31475/18 are parcels of pylons located.

- Block No. 31475: Parcel No. 15 includes 1,877 square meters of land and 299 square meters as a tower location, both owned by LÖSEV (The Foundation for Children with Leukemia). There is an urgent expropriation decision regarding LÖSEV's parcel and necessary permits have been obtained with Decision Number in the Official Gazette: 8733 with the Presidential Expropriation Decree (Annex 6).

- Block No. 31476: Parcel No. 1 includes 3,130 square meters of land and 2,579 square meters for a tower location, both areas are treasury land. There will be 8 pylons in the area designated as tower location. It is allocated to Panagro Agriculture and Livestock Farm, the land is in use. The necessary agreement has been reached with Panagro Farm owners and consent has been obtained (Annex 5).

- Block No. 30961: Parcel No. 4 consists of 3,578 square meters designated as a road, categorized as treasury land.

These lands are necessary for constructing and operating the solar power plant's transmission infrastructure, involving a mix of land types, including pastureland, raw soil, and designated tower locations, predominantly owned by public entities, and LÖSEV. Expropriation procedures for pylon locations on these parcels located on the ETL route is completed before construction. The land information is given in the Table 13.

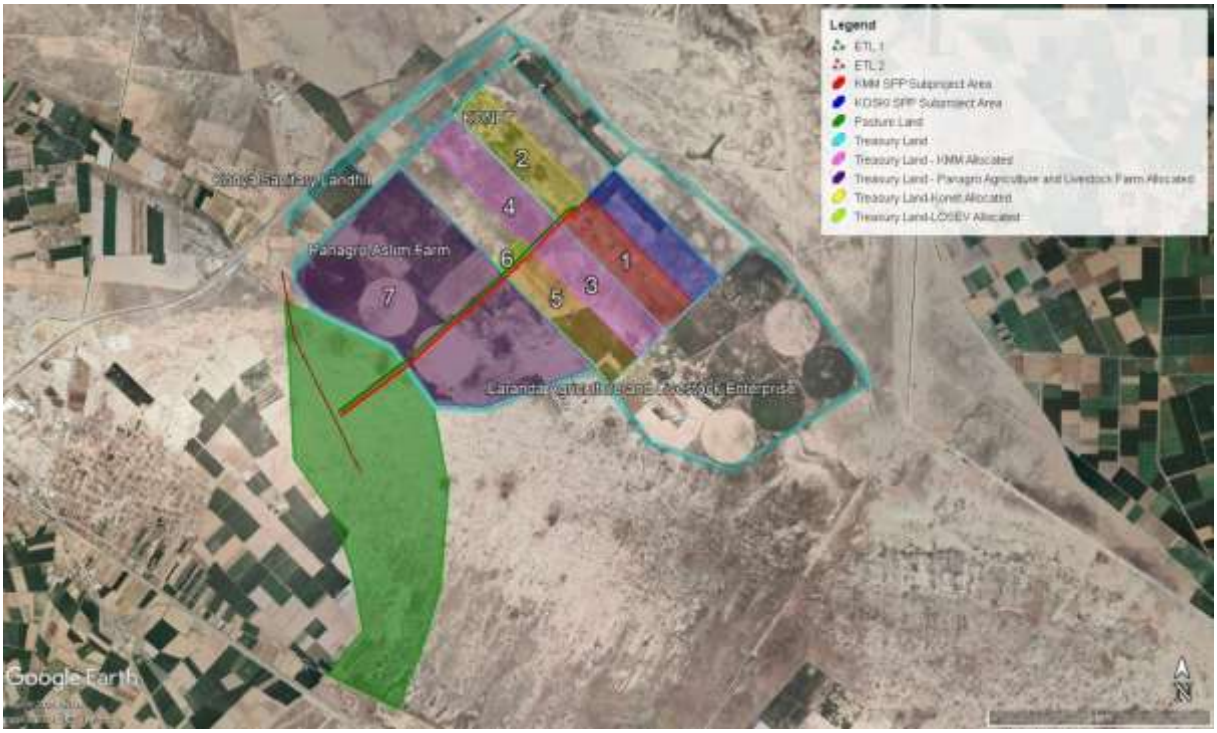


Figure 16: ETL Border Parcels

Table 13: The Lands Located Along the Transmission Line Route

	District	Neighborhood	Block No:	Parcel No:	Expropriation Area(m^2)	Type	Owner
1	Karatay	Saraçoğlu	31478	7	19100	Land	Treasury Land (Allocated to KMM)
1	Karatay	Saraçoğlu	31478	8	196	Tower Location	Treasury Land (Allocated to KMM)
1	Karatay	Saraçoğlu	31478	9	153,76	Tower Location	Treasury Land (Allocated to KMM)
1	Karatay	Saraçoğlu	31478	10	240,25	Tower Location	Treasury Land (Allocated to KMM)
2	Karatay	Saraçoğlu	31474	1	19724	Land	Treasury Land (Allocated to KONET)
2	Karatay	Saraçoğlu	31474	1	179	Tower Location	Treasury Land (Allocated to KONET)
3	Karatay	Saraçoğlu	31477	7	19277	Land	Treasury Land
3	Karatay	Saraçoğlu	31477	8	146,41	Tower Location	Treasury Land
3	Karatay	Saraçoğlu	31477	9	207,36	Tower Location	Treasury Land
4	Karatay	Saraçoğlu	31475	16	19306	Land	Treasury Land
4	Karatay	Saraçoğlu	31475	17	146,41	Tower Location	Treasury Land
4	Karatay	Saraçoğlu	31475	18	213,16	Tower Location	Treasury Land
5	Karatay	Saraçoğlu	31477	5	13737	Land	Treasury Land (Allocated to Individual)
5	Karatay	Saraçoğlu	31477	5	299	Tower Location	Treasury Land (Allocated to Individual)
6	Karatay	Saraçoğlu	31475	15	1877	Land	LÖSEV
6	Karatay	Saraçoğlu	31475	15	299	Tower Location	LÖSEV
7	Karatay	Saraçoğlu	31476	1	3130	Land	Treasury Land
7	Karatay	Saraçoğlu	31476	1	2579 (Total Area)	Tower Location (8 pylons)	Treasury Land

3.7 Implementation Schedule

The implementation schedule envisaged for the construction of the Sub-project (until provisional acceptance) is presented below in Figure 17.

Construction activities will be completed within 18 months and there will 12 months defect liability period. The plant is expected to be operated for 30 years. This will include groundwork, panel installation and operational setup. Operational setup hereby includes the test and commissioning activities. However, since Sub-project has 38.5 Mwe installed capacity, it is expected to have partial provisional acceptances. For this Sub-project, there will be five partial provisional acceptances, which ends up with permanent test and commissioning activities during the Sub-project implementation period.

Figure 17 shows the implementation schedule for construction stage of the Sub-projects for 30 years of its economic life.

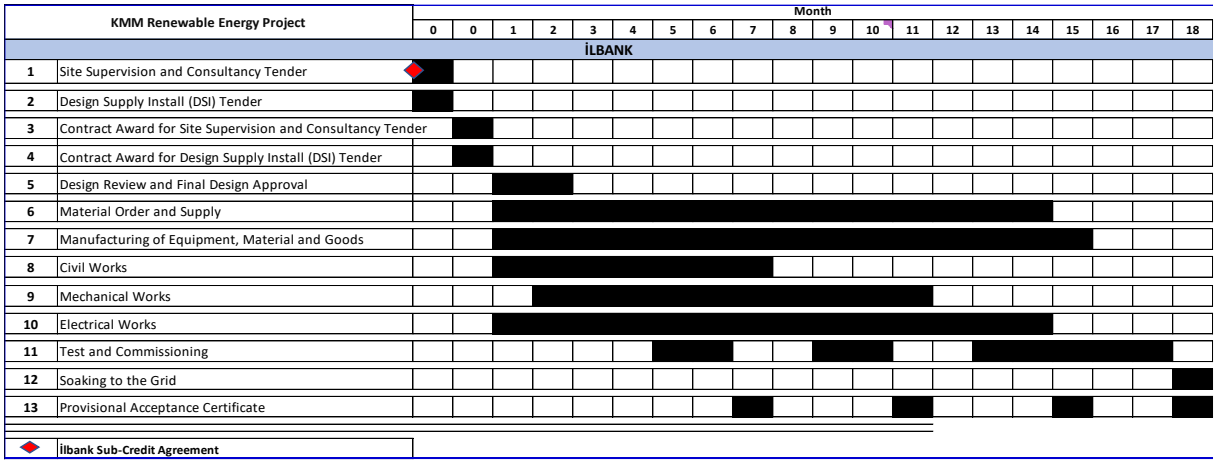


Figure 17: Envisaged Implementation Schedule of Konya SPP Sub-projects (KMM and KOSKİ)

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

As the Sub-project involves both construction and operational activities, the ESMP consist of two components applicable to respective Sub-project phase, as follows:

- Construction ESMP Matrix
- Operation ESMP Matrix

Roles and responsibilities related to the implementation of this ESMP is defined in Section 5.2.

Implementation arrangements for ESMP implementation are described in Section 3.7.

4.1 Pre-Construction ESMP Matrix

Table 14: Pre-Construction Stage Environmental and Social Management Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
Labor and Working Conditions					
P1	Improper labour conditions	Construction workforce	• Recruitting procedures will comply with national labor legislation and ESS2. • A complete risk assessment document addressing the project specific risks and defining mitigation measures will be prepared. • All employees including the subcontractors will receive necessary OHS training covering the risks • All Sub-project management plans including safe work procedures and emergency action plans will be prepared. • Labor Management Plan (LMP) will be prepared and implemented for recruiting and managing construction staff. • Workers will be provided with documented information that 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.	Contractor Supervision Consultant KMM	• Safety procedures • OHS Training Plan • LMP
P2	Impacts on local economy, livelihood sources and employment	Communities	• Local employment will be prioritized as much as possible for unskilled, semi-skilled and skilled works within the scope of the Sub-project. • SEP will be implemented for engaging with communities and running the grievance mechanism.	Contractor Supervision Consultant KMM	• SEP • Grievance Mechanism
P3	Insufficient information disclosure	Communities	• Before the start of construction activities, stakeholders will be informed about construction activities, potential impacts and mitigation measures. • ESMP and SEP will be prepared and disclosed at the KMM's website.	Contractor Supervision Consultant KMM	• Grievance Mechanism • SEP
P4	Missing documentation	Communities	Sub-project specific management plans will be prepared before the construction phase: • Labour Management Plan, • Stakeholder Engagement Plan (Up to date).	Contractor Supervision Consultant KMM	

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			• Waste Management Plan • Hazardous Material Management Plan • Emergency Response Plan • Construction Plan and Schedule • Noise Control Procedures • Chance Find Procedure • Traffic Management Plan • Community Health and Safety Plan • OHS Management Plan • Corporate Recruiment Policy • Worker's Grievance Mechanism • Safework Procedures • Induction Training Plan • Workers' Accommodation Management Plan • OHS Training Plan • Risk Assessment Document • Safety Training and Induction Program • First Aid Procedure • Incident Reporting and Investigation Procedure • SEA/SH Prevention and Response Plan • ESMP Training Plan • Spill and Leakage Response Procedures • Grievance Mechanism		

4.2 Construction ESMP Matrix

Table 15: Construction Stage Environmental and Social Mitigation Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
Labor and Working Conditions					
1.	Working Conditions	Construction workforce Employees	• Workers toolbox trainings will be implemented on weekly basis to consist of the OHS Plan and Labor Conditions. • Child labor, forced labor and unregistered labor will be prohibited as of the LMP. • The Grievance Mechanism for workers will be implemented. The workers will be informed about the grievance mechanism at the time of recruitment, and it will be made easily accessible to them.	Contractor	• Corporate Recruitment Policy • Worker's Grievance Mechanism • Safe work procedures • Sub-contractor agreement templates • Induction Training Plan • Employment records • Labor Management Plan (LMP)
2.	Inadequate Accommodation Conditions	Construction workforce Employees	• Design and construction of accommodation facilities for construction workers in accordance with national and international standards (World Bank's IFC Performance Standards). • Meeting basic needs such as clean water, hygienic toilets, showers, cooking and eating areas. • Regular inspection of accommodation conditions and ensuring compliance with health, safety and hygiene standards. • Establish a grievance mechanism for workers to provide feedback and complaints about accommodation conditions. • Adequate accommodation will be provided to site personnel. Accommodation will be planned such that clean, comfortable, and secure living quarters are provided for workers, including sleeping areas with proper ventilation, lighting, and insulation to promote rest and relaxation after work hours. Adequate sanitation facilities will be provided including toilets, showers, hand-washing stations, and wastewater disposal systems, to maintain hygiene and sanitation standards. • A minimum of 6-9 square meters of living space will be provided per worker. Adequate personal space and privacy with partitions or separate sleeping areas will be ensured. Ventilation will be optimized to prevent overcrowding and maintain air quality, while sufficient lighting will be installed	Contractor	• Worker Accommodation Management Plan • Labor Management Plan (LMP) • OHS Management Plan • Worker's Grievance Mechanism • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			to ensure safety and comfort throughout the living quarters. Appropriate heating and cooling systems will be implemented to maintain a comfortable environment. Additionally, access to clean, potable water will be guaranteed, with at least 5 liters per person per day, alongside well-maintained sanitation facilities including toilets and hand-washing stations.		
3.	General OHS risks	Construction workforce	• A complete risk assessment document addressing the Sub-project specific risks and defining mitigation measures will be prepared. • All employees including the subcontractors will receive necessary OHS training covering the risks • All Sub-project management plans including safe work procedures and emergency action plans will be prepared. • Safety procedures and appropriate Personal Protective Equipment (PPE) will be used when using ladders. • OHS Trainings will include the safety procedures. • In case of OHS incidents involving loss of life, loss of limb or eye, or temporary disability from work lasting more that 72 hrs, the Contractor will immediately (within 24 hrs) inform ILBANK PIU and follow up with completing ESRT forms, as instructed by ILBANK. This will include root cause analysis and corrective action plan.	Contractor	• OHS Management Plan • OHS Training Plan • Risk Assessment Document • Safety Training and Induction Program • Incident Reporting and Investigation Procedure • First Aid Procedure • LMP • Emergency Response Plan
4.	Lifting Operations OHS Risks	Construction workforce	• Lifting area will be enclosed with fence to prevent access to the lifting area during lifting work. • Warning signs will be installed for lifting activities • Safety procedures will be used for lifting operations. • Lifting work will be carried out by well trained, qualified, and certified lifting team and with proper communication means and flag man. • Workers will be provided with all necessary PPE and safety materials.	Contractor	• Safety procedures • OHS Trainings • LMP • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
5.	Work Injuries and Electricity Shock	Construction workforce	• Relevant safety procedure will be implemented to prevent the risk of any injury to the workers by electricity shock during installation of electric equipment. • Security fences will be built around electricity areas provide a secure area for chemical storage for potential chemicals. • Contractor electricians will be ensured to be well trained and provided with appropriate insolated PPE and work tools and should be aware of electricity shocks and avoidance techniques. • Working during rainy times will be avoided. • Danger signage will be installed in the electrical hazard areas and apply all safety measures to prevent exposures.	Contractor	• Safety procedures • OHS Trainings • Emergency Response Plan
6.	Fire safety prevention measures and emergency response	Construction workforce	• Employees will be trained for their responsibility to report dangers • Sources of ignition will be controlled • Availability of firefighting system will be ensured. • Employees will be well trained in the firefighting measures. • Fire drills will be conducted regularly	Contractor	• Safety procedures • OHS Trainings • Emergency Response Plan
7.	Manual Handling	Construction workforce	• Information and training on manual handling, including healthy lifting techniques, will be provided to the site workers. • Application of safe handling techniques will be ensured. • Space constraints will be removed, good housekeeping will be ensured, and improved layouts will be provided. • Manual handling will be kept to one level, floor conditions will be improved, and environmental conditions will be enhanced. The floor will be kept clean from any obstacles. • The use of appropriate PPE and safety materials will be ensured. • The potential use of handling aids with matching safety measures will be addressed.	Contractor	• Safety procedures • OHS Trainings • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
8.	Gender-based violence (GBV); sexual exploitation and abuse/sexual harassment (SEA/SH) on employees; gender inequality	Construction workforce	• Sensitization of the Managements of Construction Contractor and both Consultants on GBV and SEA/SH issues will be provided. • Awareness Meetings will be conducted with the workers. • Training regarding GBV and SEA/SH will be provided to all workers. • All workers will sign and be informed about the Code of Conduct. • A Worker's GM will be implemented to capture GBV and SEA/SH related complaints.	Contractor	• Ethical rules and Code of Conduct • Grievance mechanism • SEA/SH Prevention and Response Plan
Resource Efficiency and Pollution Prevention and Management					
9.	Overall environmental risks	Communities Flora and fauna	• Waste Management Plan and Hazardous Material Management Plan will be prepared for the construction stage. • Stormwater drainage system will be included in Sub-project site planning and designs. • ESMP Training Plan will be prepared.	Contractor	• Waste Management Plan, • Hazardous Material Management Plan • ESMP Training Plan
10.	Waste generation (General)	Communities Flora and fauna	• A Temporary Waste Storage Area will be established on-site for storing wastes generated by site personnel. Wastes will be segregated and stored according to their types (e.g., domestic, packaging, hazardous). • Domestic waste will be collected in designated trash bins and transported to the municipal landfill in compliance with the Waste Management Regulation. • Recyclable wastes, including packaging wastes, will be collected and temporarily stored in designated areas protected from precipitation. Licensed recycling companies will handle these wastes, following the Packaging Waste Control Regulation. • Hazardous wastes will be stored in undamaged, leak-proof, and safe containers. These containers will be clearly labelled with the waste type, classification, volume, Material Safety Data Sheets (MSDS), and required Personal Protective Equipment (PPE). Any unidentified waste will be treated as hazardous waste. A dedicated storage area with a concrete	Contractor	• Waste Management Plan

			floor and leak-proof measures will be provided for hazardous wastes. Licensed waste management companies will be contracted for collecting, disposing, or recycling these wastes. • Waste batteries, accumulators, tires, medical wastes, and personal hygiene material wastes will be collected, stored, and managed separately in compliance with relevant regulations. Waste oils, batteries, and other hazardous materials will be collected following strict guidelines to prevent environmental contamination or improper disposal. • Containers will be installed at points of waste generation to store non-hazardous solid waste, ensuring sufficient capacity for the frequency of collection. Containers will have lids to prevent rainwater from entering and causing overflow. • All containers will be clearly labelled according to their contents to promote effective waste management practices throughout the Sub-project. • All waste will be collected, segregated, labelled, and stored on-site according to Waste Management Regulation. Detailed records of waste generation, disposal methods, and recycling efforts will be maintained. • Employees will receive training on waste segregation, recycling procedures, spill prevention measures, and compliance with legislation to minimize waste generation, including hazardous and non-hazardous waste. • Hazardous waste containers will be regularly inspected for damage or spillage, securely closed, and stored in a way that prevents chemical reactions among the wastes. • Maintenance tasks, such as oil changes and battery replacements, will primarily be conducted off-site by qualified service providers. In unavoidable on-site maintenance situations, designated areas with appropriate drainage and impermeable covers will be used to prevent soil contamination. • Oil, fuel, or lubricant spills will be contained with absorbents, and any contaminated soil will be stripped and stored as hazardous waste. • Waste tires from vehicle maintenance will be stored in reserved areas in line with the Waste Tires Control Regulation.		

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
11.	Electronic wastes	Communities Flora and fauna	• Contracts will be established with recycling facilities or manufacturers to ensure proper disposal or recycling of obsolete equipment. • A recycling program will be implemented for damaged panels to recover valuable materials and minimize landfill waste. • Agreements will be set with e-waste recycling facilities to ensure responsible disposal of electronic waste from inverters, batteries, etc.	Contractor	• Waste Management Plan
12.	Wastewater generation	Communities Flora and fauna	• Septic tanks will be constructed and used for collecting wastewater from site staff. • Wastewater in the septic tank will be regularly vacuumed and removed to prevent overflow, reduce the risk of contamination, and ensure the proper functioning of the system. The septic tank will be maintained regularly.	Contractor	
13.	Risks on soil and groundwater	Communities Flora and fauna	• Oil, chemicals, lubricants, and fuel leakage or spillage will be contained and cleaned up immediately in case of any incident. • Spill containment and clean-up kits will be available onsite and clean-up from any spill will be appropriately contained and disposed through licenced companies. • Construction vehicles and equipment will be serviced regularly at off-site designated locations. • Refuelling will be carried out in designated areas using strict protocols. • Waste oil will be collected and stored for recycling or disposed through licensed vendors. • Adequate sanitary facilities, i.e., toilets and showers, will be provided for the construction workforce. In case of any accident, leakage or spillage, the necessary repair and/or maintenance will be carried out immediately.	Contractor	• Spill and leakage response procedures • Emergency Response Plan
14.	Temporary nuisance on surrounding industrial facilities due to **dust emissions** during earthworks and **gaseous**	Communities Construction workforce Flora and fauna	• Dust suppression will be applied by water spraying in case of dusting. Water to be used for dust suppression will be provided by water tankers • Surrounding industrial facilities will be informed about the time and content of construction activities, as part of the SEP.	Contractor	• Construction Plan and Schedule • Grievance Mechanism

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
	emissions from vehicles and machinery		• Loading and unloading of trucks will be carried out carefully to prevent the material from being thrown and spread, • Transport trucks will be covered with tarpaulins on public roads, when arriving and leaving the site, • Speed limit will be applied for trucks, • Tires of trucks will be cleaned to prevent sludge from being carried to the roads, • Modern equipment and vehicles will be used to meet the relevant emission standards in construction works, • Exhaust systems and emission levels of the equipment and vehicles will be checked regularly, • Good site practices will be implemented by utilizing low-emission construction equipment and vehicles to reduce the release of pollutants into the atmosphere and use of cleaner fuels and technologies during construction to minimize dust and other emissions. • Grievance mechanism will be processed. • Works will be stopped in case of a grievance, until measures are in place.		
15.	Temporary nuisance on surrounding industrial facilities doe to **environmental noise** generation from transportation vehicles, machinery and outdoor equipment that will be used on the site.	Communities Construction workforce Fauna	• Construction machinery will not be operated at night time. • Surrounding industrial facilities will be informed about the time and content of construction activities, as part of the SEP. • Machinery and equipment used during land preparation and construction works will not be operated at the same point/location but will be distributed homogeneously within the area. • Equipment with low noise level will be selected for the work machinery to be used within the scope of the Sub-project. • Regular and periodic maintenance of work machinery and equipment and daily maintenance in each shift will be conducted.	Contractor	• Construction Plan and Schedule • Noise control procedures • Grievance Mechanism

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			• All the vehicles used in transportation activities will comply with the speed limits specified in the Highway Traffic Regulations. • Grievance mechanism will be implemented to receive any complaints of nuisance. • Works will be stopped in case of a grievance, until preventive measures are in place.		
16.	Hazardous Substances	Communities Construction workforce Flora and fauna	• Types, quantities, and properties of hazardous materials to be stored will be documented. • A designated storage area will be established, equipped and used in order to safely store hazardous and toxic materials. • Labelling of storage containers will be ensured with appropriate hazard warnings, safety information, and emergency contact details to ensure proper handling and identification. All chemicals will be handled and stored and disposed according to their material safety data sheet (MSDS). • Appropriate containers, tanks, and bunding systems will be used in order to contain hazardous materials and prevent spills, leaks, or releases. Secondary containment measures will be implemented such as berms, dikes, or containment basins to capture and contain any accidental releases. • Adequate ventilation and venting systems will be ensured to prevent the buildup of hazardous vapors or gases within storage areas. • Identify and safely remove hazardous materials, such as lead-containing components in solar panels and electronic waste from inverters. • Implement appropriate containment and handling procedures to prevent spills or releases of hazardous substances. • Arrange for proper disposal or recycling of hazardous materials through licensed facilities.	Contractor	• Hazardous Material Management Plan • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
Community Health and Safety					
17.	Risks on Community Health and Safety based on increased **traffic** can pose risks of accidents, especially on local roads.	Communities	• Coordination will be ensured to plan and develop infrastructure upgrades or expansions in advance of the Sub-project. This may include improving roads, utilities and telecommunications infrastructure • All the vehicles used in transportation activities will comply with the speed limits specified in the Highway Traffic Regulations. • Vehicle speed on unpaved roads will be limited to 30 km/h. • Safe traffic control measures, including road warning signs, speed bumps and flag persons will be used as necessary. • Any damage on the roads will be repaired. • An emergency response plan will be prepared and protocols to address potential infrastructure failures, accidents, or natural disasters during construction. • Road safety training will be given to all drivers.	Contractor Supervision Consultant KMM	• Traffic Management Plan • SEP • Grievance Mechanism • Emergency Response Plan
18.	Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Communities	• Adequate accommodation will be provided for construction workers and Sub-project staff. • Ethical rules and public communication training will be provided to all employees to prevent gender-based violence, harassment, abuse, etc. in the workplace. • Workers will be required to sign and adhere to the code of conduct. • Regular awareness raising sessions will be conducted on site in GBV prevention and other social issues • Grievance mechanism will be implemented to receive any complaints in this aspect.	Contractor Supervision Consultant KMM	• Grievance Mechanism • SEP • Code of Conduct
19.	Impacts on **local economy, livelihood sources and employment**	Communities	• Local employment will be prioritized as much as possible for unskilled, semi-skilled and skilled works within the scope of the Sub-project. • SEP will be implemented for regularly engaging with communities and running the grievance mechanism.	Contractor Supervision Consultant KMM	• SEP • Grievance Mechanism

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
20.	Impacts on **vulnerable and disadvantaged** individuals and groups	Communities	• Recruitment policy will include non-discriminatory hiring practices, training programs tailored to the needs of vulnerable groups, implementing and providing support services such as transportation or childcare to facilitate participation in the workforce.	Contractor Supervision Consultant KMM	• Grievance Mechanism • SEP
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement					
21.	Impacts on local communities using the site and its environs for grazing land	Communities	• Ensure availability of grievance mechanism for stakeholders affected by land use (livestock grazers).	Contractor Supervision Consultant KMM	• Grievance Mechanism • ESMP • SEP
Biodiversity Conservation and Sustainable Management of Living Natural Resources					
22.	Disturbance on biodiversity	Flora and fauna	• **Pre-construction** surveys will be conducted to identify the presence and distribution of these species on the Sub-project site before construction begins. Habitats for these species will be designated, especially their nesting or burrowing sites. Disturbance or destruction of these habitats will be avoided during construction activities. • Construction work will be done gradually so that it will have enough time to escape for possible fauna species to be found or provide relocation of the species to convenient habitat. • Construction work will be scheduled for periods of low wildlife activity, such as avoiding nesting seasons for birds or hibernation periods for mammals. • Vegetation removal will be minimized by conducting a thorough survey to avoid unnecessary clearing. • Natural vegetation will be restored upon completion of construction activities, enabling species to re-inhabit surrounding areas. • Exclusion fencing will be installed to prevent animals from entering construction zones. Wildlife-friendly fencing designs will be used, that allow small animals like hedgehogs to pass through safely.	Contractor	• Biodiversity Training • Construction Plan and Schedule

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			• Barriers will be installed around known burrows or nesting sites to protect them from disruption during construction. These barriers can be temporary or permanent, depending on the duration of construction activities. • Project construction sites and access roads will be separated from other areas with appropriate signboards, signs, and fences. personnel and vehicle access to this area will be limited with the construction site. • Habitat degradation will be reduced by keeping vehicles on access roads and minimizing pedestrian traffic in intact areas.		
Cultural Heritage					
23.	Impacts on cultural heritage	Cultural heritage	• Chance Finds Procedure will be applied in order to ensure timely identification and appropriate management of chance findings during Sub-project implementation. • Chance Finds Procedure will be made a part of toolbox trainings during construction. • Construction work will be stopped immediately in case of any chance finds. • The relevant Preservation Board or Museum Directorate will be informed immediately and the security of the area will be ensured by the Contractor. Construction work will not continue until official notification is received.	Contractor Supervision Consultant KMM	• Chance Finds Procedure • Tool-box training
Stakeholder Engagement and Information Disclosure					
24.	Access to grazing lands and nuisance from Project activities	Communities	• SEP will be implemented.	Supervision Consultant KMM KOSKI	• SEP • Grievance Mechanism

4.3 Operation ESMP Matrix

Table 16: Operation Stage Environmental and Social Management Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
Labor and Working Conditions					
1.	Improper Working Conditions	Employees	• Toolbox trainings will be implemented on weekly basis to consist of the OHS Plan and Labor Conditions. • Labor Management Plan will be implemented for recruiting and managing all employees. • Child labor, forced labor and unregistered labor will be prohibited as of the Labor Management Plan. • Employees will be provided with documented information that 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. • The Grievance Mechanism for employees will be implemented. The employees will be informed about the grievance mechanism at the time of recruitment, and it will be made easily accessible to them.	Supervision Consultant KMM	• Corporate Recruitment Policy • ESMP • Workers Grievance Mechanism • Safe work procedures • Sub-contractor agreement templates • Employment templates • Induction Training Plan • Employment records • LMP
2.	General OHS risks	Employees	• A complete risk assessment document addressing the project specific risks and defining mitigation measures will be prepared. • All employees including the subcontractors will receive necessary OHS training covering the risks • All Sub-project management plans including safe work procedures and emergency action plans will be prepared. • Safety procedures and appropriate Personal Protective Equipment (PPE) will be used when using ladders. • OHS Trainings will include the safety procedures.	Supervision Consultant KMM	• OHS Management Plan • OHS Training Plan • Safety procedures • LMP • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
3.	Lifting Operations OHS Risks	Employees	• Lifting area will be enclosed with fence to prevent access to the lifting area during lifting work. • Warning signs will be installed for lifting activities • Safety procedures will be used for lifting operations. • Lifting work will be carried out by well trained, qualified, and certified lifting team and with proper communication means and flag man. • Workers will be provided with all necessary PPE and safety materials.	Supervision Consultant KMM	• Safety procedures • PPE usage • OHS Trainings • LMP • Emergency Response Plan
4.	Work Injuries and Electricity Shock	Employees	• Relevant safety procedure will be implemented to prevent the risk of any injury to the workers by electricity shock during installation of electric equipment. • Security fences will be built around electricity areas provide a secure area for chemical storage for potential chemicals. • Contractor electricians will be ensured to be well trained and provided with appropriate insolated PPE and work tools and should be aware of electricity shocks and avoidance techniques. • Working during rainy times will be avoided. • Danger signage will be installed in the electrical hazard areas and apply all safety measures to prevent exposures.	Supervision Consultant KMM	• Safety procedures • PPE usage • OHS Trainings • Emergency Response Plan
5.	Fire safety prevention measures and emergency response	Employees	• Employees will be trained for their responsibility to report dangers • Sources of ignition will be controlled • Availability of firefighting system will be ensured. • Employees will be well trained in the firefighting measures. • Fire drills will be conducted regularly	Supervision Consultant KMM	• Safety procedures • PPE usage • OHS Trainings • Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
6.	Manual Handling	Employees	• Information and training on manual handling, including healthy lifting techniques, will be provided to the site workers. • Application of safe handling techniques will be ensured. • Space constraints will be removed, good housekeeping will be ensured, and improved layouts will be provided. • Manual handling will be kept to one level, floor conditions will be improved, and environmental conditions will be enhanced. The floor will be kept clean from any obstacles. • The use of appropriate PPE and safety materials will be ensured. • The potential use of handling aids with matching safety measures will be addressed.	Supervision Consultant KMM	• Safety procedures • PPE usage • OHS Trainings • Emergency Response Plan
7.	Gender-based violence (GBV); sexual exploitation and abuse/sexual harassment (SEA/SH) on employees; gender inequality	Employees	• Sensitization of the Managements Staff on GBV and SEA/SH issues will be provided. • Awareness Meetings will be conducted with the affected communities. • Training regarding GBV and SEA/SH will be provided to all workers. • All workers will sign and be informed about the Code of Conduct. • GM will be operated to capture GBV and SEA/SH related complaints.	Supervision Consultant KMM	• Code of Conduct • Training Plan (GBV and SEA/SH) • Grievance mechanism
Resource Efficiency and Pollution Prevention and Management					
8.	Overall environmental risks	Communities Flora and fauna	• Waste Management Plan and Hazardous Material Management Plan will be prepared and used. • Stormwater drainage system will be maintained. • ESMP Training Plan will be prepared and conducted.	Supervision Consultant KMM	• Waste Management Plan • Hazardous Material Management Plan • Annual Training Plan
9.	Waste generation (General)	Communities Flora and fauna	• A Temporary Waste Storage Area will be established on-site for storing wastes generated by site personnel. Wastes	Supervision Consultant KMM	• Waste Management Plan

			will be segregated and stored according to their types (e.g., domestic, packaging, hazardous). • Domestic waste will be collected in designated trash bins and transported to the municipal landfill in compliance with the Waste Management Regulation. • Recyclable wastes, including packaging wastes, will be collected and temporarily stored in designated areas protected from precipitation. Licensed recycling companies will handle these wastes, following the Packaging Waste Control Regulation. • Hazardous wastes will be stored in undamaged, leak-proof, and safe containers. These containers will be clearly labelled with the waste type, classification, volume, Material Safety Data Sheets (MSDS), and required Personal Protective Equipment (PPE). Any unidentified waste will be treated as hazardous. A dedicated storage area with a concrete floor and leak-proof measures will be provided for hazardous wastes. Licensed waste management companies will be contracted for collecting, disposing, or recycling these wastes. • Waste batteries, accumulators, tires, medical wastes, and personal hygiene material wastes will be collected, stored, and managed separately in compliance with relevant regulations. Waste oils, batteries, and other hazardous materials will be collected following strict guidelines to prevent environmental contamination or improper disposal. • Containers will be installed at points of waste generation to store non-hazardous solid waste, ensuring sufficient capacity for the frequency of collection. Containers will have lids to prevent rainwater from entering and causing overflow. • All containers will be clearly labelled according to their contents to promote effective waste management practices throughout the Sub-project. • All waste will be collected, segregated, labelled, and stored on-site according to Turkish Environmental Regulations. Detailed records of waste generation, disposal methods, and recycling efforts will be maintained. • Employees will receive training on waste segregation, recycling procedures, spill prevention measures, and		

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			compliance with legislation to minimize waste generation, including hazardous and non-hazardous waste. • Hazardous waste containers will be regularly inspected for damage or spillage, securely closed, and stored in a way that prevents chemical reactions among the wastes. • Maintenance tasks, such as oil changes and battery replacements, will primarily be conducted off-site by qualified service providers. In unavoidable on-site maintenance situations, designated areas with appropriate drainage and impermeable covers will be used to prevent soil contamination. • Oil, fuel, or lubricant spills will be controlled with absorbents, and any contaminated soil will be stripped and stored as hazardous waste. • Waste tires from vehicle maintenance will be stored in reserved areas in line with the Waste Tires Control Regulation. • Any unidentified wastes will be treated as hazardous, and labels will include details such as waste classification, volume, Material Safety Data Sheets (MSDS), and required Personal Protective Equipment (PPE). Regular checks will be conducted on hazardous waste containers to identify damages or spillage. These containers will be securely closed, and storage practices will prevent chemical reactions among the wastes.		
10.	Other wastes	Communities Flora and fauna	• Contracts will be established with recycling facilities or manufacturers to ensure proper disposal or recycling of obsolete equipment. • A recycling program will be implemented for damaged panels to recover valuable materials and minimize landfill waste. • Agreements will be set with e-waste recycling facilities to ensure responsible disposal of electronic waste from inverters, batteries, etc. • The storage conditions for hazardous materials, such as lead-containing components in solar panels and electronic	Supervision Consultant KMM	• Waste Management Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			waste from inverters, will be managed by designating a clearly marked storage area. • Lead-containing components and electronic waste will be stored in robust, leak-proof containers that are labelled with appropriate hazard symbols and handling instructions. • Secondary containment systems, such as bunds or drip trays, will be used to prevent leaks and spills from contaminating the surrounding area. • A dedicated storage area, featuring a concrete floor and leak-proof measures in accordance with relevant legislation, will be allocated. • All waste containers will be clearly identified and labelled with accurate descriptions of the waste type, providing essential information for safe handling and transfer. • For vehicles and machinery to be used, their maintenance, including tasks like oil changes and battery replacements, will be conducted outside the Sub-project area by qualified service providers. • In unavoidable on-site maintenance, designated areas with appropriate drainage will be used, and impermeable covers will prevent soil contamination. • Waste batteries and accumulators will be collected, stored, and managed separately in compliance with relevant regulations.		
11.	Water use	Communities Flora and fauna	• Water will be used efficiently while cleaning the panels in order to avoid wasting water. • The solar panel cleaning will be wiper cleaning and water saving practice by using rubber blade water sprayers with very little amount of water.	Supervision Consultant KMM	
12.	Wastewater generation	Communities Flora and fauna	• The septic tanks constructed at the construction stage will be used for collecting wastewater from operation staff. • Wastewater in the septic tank will be regularly vacuumed and removed to prevent overflow, reduce the risk of	Supervision Consultant KMM	

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			contamination, and ensure the proper functioning of the system. The septic tank will be maintained regularly.		
13.	Risks on soil and groundwater	Communities Flora and fauna	• Oil, chemicals, lubricants, and fuel leakage or spillage will be contained and cleaned up immediately in case of any incident. • Spill containment and clean-up kits will be available onsite and clean-up from any spill will be appropriately contained and disposed of at an appropriate site. • Vehicles and equipment will be serviced regularly at off-site designated locations. • Refuelling will be carried out in designated areas using strict protocols. • Waste oil will be collected and stored for recycling or disposal through licensed vendors. • In case of any accident, leakage or spillage, the necessary repair and/or maintenance will be carried out immediately.	Supervision Consultant KMM	• Spill and leakage response procedures • Emergency Response Plan
14.	Hazardous Substances	Communities Operation Workforce Flora and fauna	• Types, quantities, and properties of materials to be stored will be documented. • A designated storage area will be established, equipped and used in order to safely store hazardous and toxic materials. • Labelling of storage containers will be ensured with appropriate hazard warnings, safety information, and emergency contact details to ensure proper handling and identification. All chemicals will be handled and stored and disposed according to their material safety data sheet (MSDS). • Appropriate containers, tanks, and bunding systems will be used in order to contain hazardous materials and prevent spills, leaks, or releases. Secondary containment measures will be implemented such as berms, dikes, or containment basins to capture and contain any accidental releases. • Adequate ventilation and venting systems will be ensured to prevent the buildup of hazardous vapors or gases within storage areas.	Supervision Consultant KMM	• Emergency Response Plan

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
			• Appropriate containment and handling procedures will be implemented to prevent spills or releases of hazardous substances. • Proper disposal or recycling of hazardous materials will be implemented through licensed facilities.		
Community Health and Safety					
15.	**Glare** from solar panels which can be a safety hazard for drivers, pedestrians, and nearby residents, particularly if it impairs visibility or causes discomfort	Communities	• Proper panel orientation will be ensured and in case of needed anti-glare coatings will be used for road safety in the vicinity of the solar plant.	Supervision Consultant KMM	• Grievance Mechanism
16.	Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Communities	• Ethical rules and code of conduct will be provided to all employees to prevent gender-based violence, harassment, abuse, etc. in the workplace. • Employees will be required to sign and adhere to the code of conduct. • Regular awareness raising sessions will be conducted on site in GBV prevention and other social issues • Grievance mechanism will be implemented to receive any complaints in this aspect.	Supervision Consultant KMM	• Grievance Mechanism • Code of Conduct
17.	Impacts on **local economy, livelihood sources and employment**	Communities	• Existing roads leading to the Sub-project site will be improved such that the Sub-project will not restrict access to grazing land for local livestock grazers. • SEP will be implemented for regularly engaging with communities and running the grievance mechanism.	Supervision Consultant KMM	• Grievance Mechanism
18.	Impacts on **vulnerable and disadvantaged**	Communities	• Recruitment policy will include non-discriminatory hiring practices, training programs tailored to the needs of vulnerable groups, implementing and providing	Supervision Consultant KMM	• Grievance Mechanism • SEP

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Relevant Management Plan or Procedure
	individuals and groups		support services such as transportation or childcare to facilitate participation in the workforce. • Corporate Social Responsibility (CSR) will be designed and implemented to contribute positively to the communities based on their needs such as improvement of roads and utilities.		
Biodiversity Conservation and Sustainable Management of Living Natural Resources					
19.	Disturbance on biodiversity	Flora and fauna	• Exclusion fencing around the site will be maintained. Wildlife-friendly fencing will be ensured, that allow small animals like hedgehogs to pass through safely. • Project access roads will be separated from other areas with appropriate signboards, signs, and fences. Personnel and vehicle access to this area will be limited.	Supervision Consultant KMM	• Biodiversity Training
Stakeholder Engagement and Information Disclosure					
20.	Insufficient stakeholder engagement activities and public consultation.	Communities	• Interaction / communication will be established with communities, and adequate timing will be planned for engagement activities. Additionally, regular consultations will be carried out with the authorities and communities regarding the project management.	Contractor Supervision Consultant KMM	• SEP • Grievance Mechanism

4.4 Monitoring and Reporting

The KMM, (on behalf of KOSKI according to protocol between KMM and KOSKI in Annex 4) will conduct internal monitoring of Sub-project's E&S performance and submit Periodic Monitoring Reports to ILBANK in line with the sub-financing agreement requirements. The information to be provided as part of reporting for the respective monitoring period will include the following:

- Up-to-date information on the Sub-project and progress with Sub-project implementation (e.g. status of construction, Sub-project timeline, etc.),
- Status of compliance with legal requirements (e.g. Sub-project permitting status, status and outcomes of audits done by national authorities, fines imposed by national authorities if any, etc.)
- Details of how the requirements of the IFI standards (e.g. WB ESSs) are being met on the basis of compliance with Sub-project level Environmental and Social Action Plans (ESAPs),
- Incident and accident reports and statistics,
- Current Sub-project level E&S organization and capacity (including information on capacity building and training),
- Progress with Sub-project level stakeholder engagement activities and management of grievances, and
- Records on E&S non-conformities identified and general status of Corrective Action Plan implementation at Sub-project level (in case of non-conformities).

Key performance indicators (KPIs) of this procedure will be monitored, verified, and evaluated within the scope of the Sub-project monitoring stage. The KPIs for both construction and operation phases of the Sub-project are presented in Table 17.

Table 17: Key Performance Indicators for Both Construction and Operation Phases of the Sub-project

Monitoring Focus	KPI
Documentation	
Following ESMP Project specific plans will be developed and be in place.	Full compliance with Sub-project's ESMP
Air Quality	
Air Quality incidents	Minimization and continued improvement in the number of the reported air quality related incidents.
Non-Compliance with air quality standards	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of air quality related community grievances
Violation on speed limit	Minimization and continued improvement in the number of reported violations on speed limit
Noise	
Noise and Vibration incidents	Minimize and continued improvement in number of reported noise and vibration related incidents
Non-Compliance with Project standards	Zero Non-Compliance Reports (NCRs) per year
Number of noise-related community grievances	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of noise related community grievances
Water / Wastewater	
Spill incident	Minimization and continued improvement in the number of the reported water quality related incidents.
Non-Compliance with Sub-project standards	Zero NCRs per year
Wastewater collection system	Zero grievances per year
Water quality analyses	Meeting set national and international water quality standards for surface and groundwater impacted and/or near the Sub-project
Wastewater and Water loss records in network	Sustainable low wastewater and water loss records
Waste	
Waste Generation	Minimization of total waste generated Decrease in the ratio of hazardous waste generated to total waste (by contamination + by generation)

Monitoring Focus	KPI
Waste Disposal	Increase in the ratio of recovered/reused/recycled waste to total waste generated
Soil Quality	
Spill incident	Minimization and continued improvement in the number of the reported soil quality related incidents
Non-Compliance with Sub-project standards	Zero NCRs per year
Traffic	
Number of non-compliances against the mitigation controls identified in Traffic Management Plan	Decreasing number/ continuous improvement in number of reported non-compliances
Number of drivers found to be exceeding speed limits or driving unsafely	Zero exceedance per year
Number of road traffic accidents involving: Accidental injuries and deaths, Spillages (such as cargo or fuel), Wildlife-vehicle collisions.	Zero accidents per year
Number of traffic-related grievances	Zero grievances per year
Health, Safety and Environment	
% of scheduled HSE Inspection	>90
% of attendance at HSE meetings	>90
% of closing of NCRs	100
Reporting safe/ unsafe observations	100%
Reporting near misses	100%
Reporting number of incidents/ accidents	100%
Reporting day-loss	100%
% of Toolbox attending	>90
% of Risk Assessment compliance	>90
% of Legal Requirements compliance	100%
Results of scheduled audits	>85
HSE training carried out to training matrix 100% of all training to matrix	%100
% of attendance at scheduled trainings	%100
Engagement in HSE program by individual managers and supervisors	%100
Engagement in HSE program by contractor's	%100
Labour and Working Conditions	
Number of worker grievances closed out within the target timeframe	100% compliance with labour laws and regulations Zero unresolved health and safety incidents within the target timeframe 100% availability of required PPE 90% or higher worker satisfaction rate
Community Health and Safety	
Number of communicable and non-communicable diseases and injuries.	Negative Trend/No significant increase in communicable and non-communicable disease and injury rates per 1,000 residents per annum.
Number of community health safety & security grievances from local communities as recorded in the grievance management system.	Decreasing number/ continuous improvement in number of grievances
Number of reported community health & safety incidents	Zero incidents per year
Access to the Construction Site - Security Fence/ Protection Tape	Zero Number of unauthorized accesses to the Sub-project area
Trainings	
Training records	Trainings on ESMP and SEP documents. Providing all trainings (including GM, GBV, SEA/SH) to all employees. 100% of scheduled training sessions conducted 80% or higher participant satisfaction rate Zero participants without completion certificates if applicable
Disclosure	
ESMP, SEP, GM will be disclosed at KMM's web site in two languages (English and Turkish).	All grievances closed-out within the target timeframe ESMP, Project specific ESMP, SEP and GM will be prepared and disclosed at the Project web site
Vulnerable groups	
Incidents, Grievances, , Information/ disclosure	All grievances closed-out within the target timeframe Sufficient information provided to the VGs
Grievance mechanism	
Grievance Records, GM disclosure	All grievances closed-out within the target timeframe GM disclosure to the Project Affected People (PAP), stakeholders GM disclosure at Sub-project web site

Table 18: Environmental and Social Monitoring Table for Construction Phase

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
Labor Force	• Employment records • Induction Training Plan • Accommodation conditions	Project office at the site Camp site Accommodation area and rooms	• Document review • Visual observations • Interviews with workers	Monthly	Good Practices WB ESS 2 National Labor Legislation Guidance by IFC and EBRD Workers' Accommodation: Processes and Standards	KMM Supervision Consultant Contractor	100% compliance with labor laws and regulations 100% completion rate for induction and health and safety training 90% or higher worker satisfaction rate 100% compliance with international accommodation standards 100% availability of required PPE	Included in the Sub-project budget
	• Workers GM	Project office Camp site Accommodation	• Grievance records • Interviews with workers	Daily	WB ESS2	KMM Supervision Consultant Contractor	Zero unresolved health and safety incidents within the target timeframe 90% or higher satisfaction rate with grievance resolution process	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
Working Conditions • General OHS Risks • Lifting risks • Electricity Shock Risks • Fire risks • Manual handling risks	• PPE usage • OHS Trainings	Project office at the site Camp site	• Document review for safety procedures • Visual observations to check measures are in place • Accident records Grievance records	Daily	National OHS Legislation WB ESS2	KMM Supervision Consultant Contractor	% of scheduled HSE Inspection % of attendance at HSE meetings % of closing of non-compliance Reports (NCRs) Reporting safe and unsafe observations % of Toolbox attending % of Risk Assessment compliance % of Compliance with Legal Requirements Results of scheduled audits HSE training carried out to training matrix.	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
Waste management • Waste Storage Area • Waste management practices	• Adequate storage conditions • Leakages	Waste storage area	Visual observations Waste records	Daily visual observations Monthly records control	National Waste Legislation WB ESS 3 Good Practices	KMM Supervision Consultant Contractor	No overfill of bins Amount of waste stored Amount of waste collected	Included in the Sub-project budget
Soil protection from spills and leakages of oil and chemicals	• Oil stains on soil • Chemical spills on soil • Conditions of storage area for hazardous/toxic and wastes substances and wastes • Stormwater management system	Material storage locations and waste storage area within Sub-project site Car park area	Visual observations	Daily	Good Practices WB ESS 3 National Legislation	KMM Supervision Consultant Contractor	Number of accidents and incidents of spills and leakages reported	Included in the Sub-project budget
Dust from construction activities and vehicle traffic	• Grievances of disturbance from dust and emissions	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily	Good Practices WB ESS 3 National Legislation	KMM Supervision Consultant Contractor	Number of grievances received Number of grievances resolved	Included in the Sub-project budget
Wastewater pollution	• Wastewater	Septic tanks	• By recording wastewater	Daily	Urban Wastewater	KMM		Included in the Sub-

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
			receipts (sewage vacuum truck transportation receipt).		Treatment Regulation IFC, EHS General Guideline	Supervision Consultant Contractor		project budget
Noise from site machinery	• Grievances of disturbance from noise generation from site machinery	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily	Good Practices	KMM Supervision Consultant Contractor		Included in the Sub-project budget
Hazardous materials	• Labelling • Storage conditions	• Hazardous material storage area • Hazardous waste storage area	• Visual observations for mitigation measures	Daily	Good Practices WB ESS 3 National Legislation	KMM Supervision Consultant Contractor		Included in the Sub-project budget
Community roads Traffic risks	• Approvals from government authorities • Traffic management plan • Damage on roads • Emergency Response Plan	• Project office at the site • Along the transportation routes • Grievance records	• Grievance records review • Visual observations • Interviews with mukhtar	Daily	Good Practices WB ESS 4	KMM Supervision Consultant Contractor	Number of incidents/accidents Number of grievances received Number of grievances resolved Zero damage on roads	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	• Accommodation conditions • Ethical rules and public communication training • Workers code of conduct. • Grievance mechanism	• Area of Influence Neighborhoods • Camp site	• Grievance records review • Code of Conduct • Training Plan to include GBV and SEA/SH • Visual observations • Interviews with Mukhtars of Area of influence	Daily	Good Practices WB ESS 4	KMM Supervision Consultant Contractor	Number of incidences reported Number of incidences resolved Number of grievances	Included in the Sub-project budget
Vulnerable and disadvantaged individuals and groups	• Recruitment policy • CSR	• Camp site • Nearby settlements	• Employment records • Visual observations • Interviews with Mukhtars of Area of influence	Monthly	Good Practices WB ESS 4	KMM Supervision Consultant Contractor	Number of grievances received Number of grievances resolved	Included in the Sub-project budget
Biodiversity disturbance	• Animal carcasses in the nearby surroundings	• Sub-project Site and environs	• Visual observations by conducting systematic visual inspections of	Bi-monthly	Good Practices WB ESS 6	KMM Supervision Consultant Contractor	Number and variety of mammal species observed around the project site	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
	• Vegetation cover • Follow-up surveys during to detect any burrows, nests and other signs of mammal activity		the site to identify signs of burrows and nests such as burrow entrances, tracks, droppings, and other signs of mammalian activity.				Number of burrows/nests detected and identified Number of reported incidents where construction activities disturbed mammal habitat	
Cultural Heritage	• Chance Finds procedure	• Project site office	• Document review	Once-off	Good Practices WB ESS 8 National Legislation	KMM Supervision Consultant Contractor	Number of chance finds and records	Included in the Sub-project budget

Table 19: Environmental and Social Monitoring Table for Operation Phase

Subject	**Parameter to be Monitored**	**Monitoring Location**	**Monitoring Method**	**Monitoring Frequency**	**Reference / Threshold Level (if applicable)**	**Responsibility for Monitoring**	**Key Performance Indicators (KPIs)**	**Cost (If not included in the Sub-project Budget)**
Labor Force	• Employment records • Induction Training Plan • Employee GM	Sub-project office at the site	• Document review • Visual observations • Grievance records • Interviews with employees	Monthly	National Labor Legislation Guidance by IFC and EBRD Workers' Accommodation: Processes and Standards Good Practices WB ESS 2	KMM	Number of grievances received Number of grievances resolved No incompliance reported	Included in the Sub-project budget
Working Conditions • General OHS Risks • Lifting risks • Electricity Shock Risks • Fire risks • Manual handling risks	• PPE usage • OHS Trainings	Sub-project office at the site	• Document review for safety procedures • Visual observations to check measures are in place • Accident records Grievance records	Daily	National OHS Legislation Good Practices WB ESS 2	KMM	% of scheduled HSE Inspection % of attendance at HSE meetings % of closing of Non-Compliance Reports (NCRs) Reporting safe and unsafe observations Reporting near misses % of Toolbox attending % of Risk Assessment compliance	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
							% of Compliance with Legal Requirements Results of scheduled audits HSE training carried out to training matrix	
Waste management • Waste Storage Area • Waste management practices	• Adequate storage conditions • Leakages	Waste storage area	Visual observations Waste records	Daily visual observations Monthly records control	National Waste Legislation Good Practices Good Practices WB ESS 3	KMM	No overfill of bins Amount of waste stored Amount of waste collected	Included in the Sub-project budget
Soil protection from spills and leakages of oil and chemicals	• Oil stains on soil • Chemical spills on soil • Conditions of storage area for hazardous/toxic and wastes substances and wastes • Stormwater management system	Material storage locations and waste storage area within Sub-project site Car park area	Visual observations	Daily	Good Practices WB ESS3 Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	KMM	Number of accidents and incidents of spills and leakages reported	Included in the Sub-project budget
Dust from construction activities and vehicle traffic	• Grievances of disturbance from dust and emissions	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily	Good Practices WB ESS3	KMM	Number of grievances received	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
					Exhaust Gas Emission Control Regulation		Number of grievances resolved	
Wastewater pollution	• Wastewater	Septic tanks	• By recording wastewater receipts (sewage vacuum truck transportation receipt).	Daily	Urban Wastewater Treatment Regulation IFC General EHS Guideline WB ESS3	KMM	No leakages No overfilling Regular maintenance No odor	Included in the Sub-project budget
Noise from site machinery	• Grievances of disturbance from noise generation from site machinery	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily	Good Practices WB ESS3 Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	KMM	Number of grievances received Number of grievances resolved	Included in the Sub-project budget
Hazardous materials	• Labelling • Storage conditions	• Hazardous material storage area • Hazardous waste storage area	• Visual observations for mitigation measures	Daily	Good Practices WB ESS3	KMM	Number of spills and leakages reported	Included in the Sub-project budget
Community roads Traffic risks	• Approvals from government authorities • Traffic management plan • Emergency Response Plan	• Project office at the site • Along the transportation routes • Public's Grievance records	• Grievance records review • Visual observations • Interviews with mukhtars of Area of influence	Daily at the project construction areas	Good Practices WB ESS4 National legislation	KMM	Number of grievances received Number of grievances resolved	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	• Ethical rules and public communication training • Workers code of conduct. • Awareness on GBV • Grievance mechanism	• Neighborhoods in the social impact zone and environs • Camp site	• Grievance records review • Code of Conduct • Training Plan to include GBV and SEA/SH • Visual observations • Interviews with Mukhtars of Area of influence	Daily	Good Practices WB ESS4	KMM	Number of grievances received Number of grievances resolved	Included in the Sub-project budget
Vulnerable and disadvantaged individuals and groups	• Recruitment policy • CSR	• Nearby settlements	• Employment records • Visual observations • Interviews with Mukhtars of Area of influence	Monthly	Good Practices WB ESS4	KMM	Number of grievances received Number of grievances resolved	Included in the Sub-project budget
Biodiversity disturbance	• Animal carcasses in the nearby surroundings • Vegetation cover • follow-up surveys during to detect any burrows, nests and other signs of mammal activity	• Sub-project Site and environs	Visual Observations by conducting systematic visual inspections of the site to identify signs of burrows and nests such as burrow entrances, tracks, droppings, and other signs of	Semi-annually	Good Practices WB ESS6 Regulation on Protection of Wildlife and Wildlife Development Area	KMM	Number and variety of mammal species observed around the project site Number of burrows/nests detected and identified Number of reported incidents where operation	Included in the Sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Sub-project Budget)
			mammalian activity.				activities disturbed mammal habitats	

5. CAPACITY DEVELOPMENT AND TRAINING

The main responsible organization for the implementation of this ESMP is KMM according to protocol with KOSKI mentioned in Annex 4. The protocol says that KMM will conduct the operation activities during the 30-year operation period. KMM has the adequate ability and capacity to manage the implementation of the project and in particular the E&S. A PIU will be established to carry out operational and administrative tasks. The PIU staff will be the KMM's own staff. Mitigation management and monitoring tables, which are given in this ESMP, summarize the relevant responsibilities.

The Supervision Consultant will have at least one Environmental Expert, one Social Expert and one Occupational Health and Safety Expert in its team. Number of experts will be increased, if necessary. Supervision Consultant will oversee the supervision of construction and/or rehabilitation works and installation of equipment. The respective experts will be responsible for identification and management of environmental, social and OHS related risks and will ensure initiation corrective actions where necessary. The experts will also monitor and evaluate the performance of the services provided by the Contractor. In addition, the Supervision Consultant will be responsible for the preparation and submission of the regular monthly reports to ILBANK on the environmental, social and OHS issues of the Sub-project during the construction phase.

All institutions will strive to ensure that the reporting, which constitutes the most important element of communication in the system, is done in accordance with the specified standards, complete, accurate information and on time.

5.1 Organizational Capacity

In the context of the project, it is mandatory for the Contractor to comply with the ESMP requirements. This includes maintaining a full-time A-class occupational safety specialist on-site. Additionally, the environmental engineer and social specialist are responsible for monitoring the ESMP requirements.

These specialists are required to collaboratively develop the management plans such as Occupational Safety Plan, Waste Management Plan, and Hazardous Materials Management Plan in coordination with the Supervision Consultant team. These plans must then be reviewed and revised (if necessary) by the Supervision Consultant.

Contractor is responsible for the implementation of these plans. The supervision consultant will audit the implementation of these plans to ensure compliance.

This entire process will be coordinated by the PIU of KMM. The following figure illustrates the organization scheme of KMM PIU.

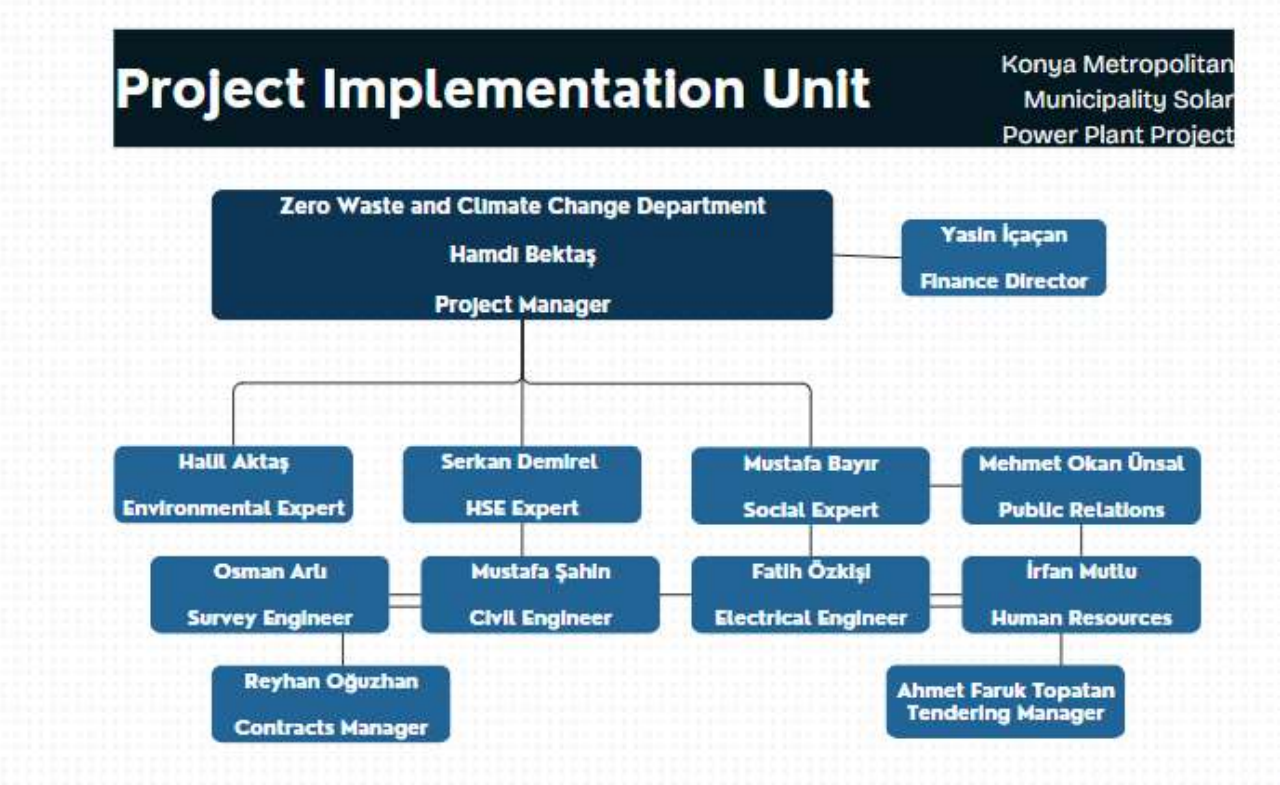


Figure 18: Organization Chart of KMM PIU

5.2 Roles and Responsibilities

The roles and E&S related responsibilities of the Sub-borrower and other key parties are described in Table 20.

Table 20: Roles and E&S related Responsibilities of Key Parties associated with ESMP Implementation

Party	Role	Key Responsibilities
Financial Intermediary (FI)		
ILBANK	FI	• To fulfill the Sub-project implementation support role to ensure that is carried out in line with ILBANK ESMS and WB ESF, • Visit Sub-project site on occasion, and as required, as part of project supervision, monitoring and auditing. • Reviewing, approving, and disclosing ESMP on ILBANK's official website. • Reviewing the Environmental and Social Monitoring Reports (ESMRs) which will be prepared by the sub-borrower.
Sub-borrower		
KOSKI	Sub-borrower Management	• Providing all kinds of equipment and personnel support during construction and operation phase of the project. • Payment of 70 percent of all expenses covered by Konya Metropolitan Municipality within the scope of the project. (Annex 4)
KMM	Implementation of the E&S requirements during construction and	• Hold ultimate responsibility for the E&S performance of the Sub-project to the satisfaction of the ILBANK, including the performance of Sub-project contractors throughout the sub-financing agreement life cycle. • Establish PIU following the execution of sub-financing agreements to carry out operational and administrative tasks to oversee the implementation of the E&S

Party	Role	Key Responsibilities
	operation phases of the sub-project	instruments and monitoring progress; allocate resources for the recruitment of in-house environmental, social and OHS staff under the PIU • Ensure that ESMP, SEP and other E&S management plans and procedures required by ILBANK is applied within the timeframes agreed with ILBANK and allocate adequate financial and human resources – either from the Sub-borrower's own resources or from the Sub-project loan and implement. • Cooperate with the ILBANK representatives to discuss and agree on the ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower (with support from RD E&S team as necessary) • Ensure that EHSS requirements of ILBANK are incorporated into relevant contractor tender and agreement documents to be prepared in collaboration with the construction supervision consultant • Hold and use the authority and responsibility to stop any Sub-project related work activity if it poses an imminent danger to health, safety, or the environment. • Allocate resource to ensure monitoring of Sub-project E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Facilitate monitoring visits and audits by ILBANK and their consultants • Notify the ILBANK RD – E&S Teams of any significant E&S incident or accident within maximum 24 hours of the accident/incident; contractually require the supervision consultants and/or contractors to promptly report such incident and accidents (timeframe to be defined by ILBANK) (Annex E) • Prepare and submit a detailed E&S Incident Investigation Form, supplemented by an RCA to be conducted pursuant to GIIPs, to ILBANK within **30 days** of the accident/incident date for significant accidents or incidents (in line with the template presented in the E&S Supervision, Monitoring and Reporting Procedure). The investigation will be supplemented by a Root Cause Analysis (RCA) (Annex E&F)
	E&S Team - Environmental staff - Social staff - OHS staff	• Participate in the training to be organized by ILBANK as part of ILBANK ESMS Training Procedure implementation • Ensure that satisfactory ESMP, SEP and as required other E&S assessment documentation required by ILBANK is prepared by qualified independent specialists and submitted to ILBANK for appraisal and credit decision-making for High and Substantial risk Sub-projects, as well as for Moderate risk Sub-projects where the sub-borrower has limited E&S capabilities, coordinate commissioning independent third-party specialists (such as external E&S consultancy companies, individual consultants) to carry out the E&S assessment and prepare the E&S documentation required for ILBANK's appraisal and credit decision-making processes • Provide ILBANK with relevant adequate information to undertake the E&S due diligence in accordance with the ESMS (e.g. duly completed sub-borrower questionnaire and supporting documentation to be requested by ILBANK in accordance with the E&S Screening and Risk Classification and ESDD procedures) • Support the sub-borrower management as required in the review and evaluation of ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower • Ensure compliance of Sub-projects operations (including contractor activities on site) with national legislation and E&S requirements of the lending IFIs as included in the sub-financing agreements, ESAP and Sub-project-specific E&S documentation (such as ESMP, SEP and other E&S management plans and procedures required by ILBANK) • Undertake monitoring of Sub-project E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Ensure implementation of corrective actions in case of E&S non-compliances in coordination and agreement with ILBANK DG and RD E&S teams over reasonable timeframes

Party	Role	Key Responsibilities
		• Coordinate the construction supervision consultants, contractors and/or external E&S consultants for collection of the monitoring data and compilation of or providing input to periodic monitoring reports as necessary and appropriate • Allow ILBANK representatives (including individual consultants) to access Sub-project facilities and records.
Construction Supervision Consultants ("*Müsavir*")	Management and E&S staff	Carry out the following tasks on behalf of the sub-borrowers: • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Supervise the construction works of contractors on-site, including implementation of Sub-project-specific E&S requirements (requirements stemming from ESMP, SEP and other E&S management plans and procedures required by ILBANK as applicable) by contractors on a daily basis • Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the sub-financing agreements between the sub-borrower and ILBANK • Support the sub-borrowers for the supervision and review of E&S management documentation prepared by construction contractors and submit them to sub-borrowers upon finalization • Review monthly self-monitoring reports prepared by the construction contractors for early identification of E&S issues and/or non-compliances and submit them to municipalities/municipal utilities upon finalization • Identify E&S non-compliances on site and enforce construction contractors to undertake corrective actions within defined and agreed timeframes • Support the sub-borrowers (as requested) in the preparation of periodic E&S monitoring reports to be submitted to ILBANK in line with the ILBANK E&S Supervision, Monitoring and Reporting Procedure • Notify the sub-borrower of any significant E&S incident or accident that have taken place in Sub-project related operations within 24 hours
Construction Contractor	Management and E&S staff	• Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the construction contracts • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Prepare Sub-project-specific E&S management plans and procedures prior to start of construction works as required by the construction contracts • Comply with the requirements of national legislation and implement the E&S requirements as set out in the sub-financing agreements (executed between ILBANK and the sub-borrowers) and construction contracts • Submit periodic (in frequencies to be set by ESAP) E&S self-monitoring reports to the municipalities/municipal utilities through construction supervision consultants ("*müşavir*") – in line with the format provided by ILBANK. • Fill in monthly occupational health and safety (OHS) forms – reviewed by construction supervision consultants. • Implement corrective actions in case of E&S non-compliances under the supervision of sub-borrower's construction supervision consultant • Promptly notify the sub-borrower of any significant E&S incident or accident that have taken place in Sub-project related operations (timeframe to be defined by ILBANK no later than 24 hours)

5.3 Grievance Mechanism

In line with ESS10, a grievance mechanism (GM) will be established to allow individuals who believe they have been impacted by the Project during its planning, construction, or operation phases to submit their grievances for review and, if necessary, resolution.

A specific Sub-project grievance mechanism is beneficial in addressing community and individual concerns and complaints before they escalate beyond control. The purpose of this mechanism is to establish a system for handling, evaluation and resolution of all kinds of grievances, concerns, queries and proposals of the project affected groups and other stakeholders, such as construction workers, regarding the Sub-project activities (mainly construction).

According to the protocol between KMM and KOSKI (Annex 4) the grievance mechanism and PIU of this sub-project will manage by KMM during 30 years operation lifetime. KMM will establish GM for the use of communities and Sub-project's workforce, as detailed in the Sub-project specific Stakeholder Engagement Plan (SEP). It should be noted that the workers' grievances will be addressed through separate channels and detailed in Labor Management Plan (LMP). Under the PIU of KMM, the GM team will be created.

KMM, supervision consultant and the Contractors are responsible for implementing and maintaining the GM during the construction activities, where KMM is responsible for both the construction, operation and decommissioning phases. KMM, together with contractors and supervision consultant, has to ensure that grievance mechanism is implemented effectively. The social expert will be appointed by KMM.

Monthly summaries regarding the grievances, queries, and related incidents together with the implementation status of corrective/preventive actions will be prepared by the Contractor throughout the construction phase and by KMM during the operation phase. These summaries will be incorporated into monthly ESMRs, which will be prepared by the Contractor in construction phase of the project, to be submitted to the Municipality. Also, the Contractor should convey the grievances immediately to the Project Owner besides summarizing them in Monthly ESMRs. The monthly summaries/reports will be a mean to assess both the number and nature of complaints (if any), along with KMM's and contractor/s' ability to address complaints in a timely and effective manner. As for the incidents, the Contractor is responsible for immediate notification of the contingencies such as environmental, social and labor issues or accidents, incidents or loss of time to the KOSKI and keeping an event log on site throughout the lifetime of the sub-project.

Monthly ESMRs will be prepared by the Contractor to be submitted to KMM. Quarterly ESMRs and semiannual Project Progress reports will be prepared by KMM, to be submitted to ILBANK together with the Grievance Register. Semiannual ESMRs and Project Progress reports will be prepared by ILBANK to be submitted to WB. These reports will include a summary of the Project's performance on management of health, safety, environment and social issues, grievance mechanism and stakeholder engagement activities conducted during the specified period. All the work done for the effective implementation of the GM will be documented by use of the forms and logs in the project-specific SEP and will be evaluated and reported according to the determined KPI targets. It is also should be noted that the personal information of the complainant having used the GM will remain confidential and will never be shared in these reports.

KMM will ensure that a workers GM for the Project employees will be available to both direct and contracted workers to allow them to raise their concerns and grievances. KMM will also assess grievance(s) and suggest solutions for employees of contractors and subcontractors to establish an internal GM, which is easily accessible for all workers. In addition, the logs of workers' GM will be separate from GM for general public.

The step-by-step grievance process to be adopted and Sample Grievance and Grievance Closeout Forms of KMM is presented in SEP.

Currently, KMM uses a hotline "185" which is accessible 24/7 for any emergencies, and communication link (www.cimer.gov.tr) through the official website of KMM, which also enables people to follow up their complaints. The project specific grievance mechanism will be adopted and used by KMM/PIU during both the construction and operation phases of the Project. All grievances related to the Project will be evaluated and responded to.

Apart from the means of GM presented by KMM, all stakeholders will also have the opportunity to benefit from other grievance mechanisms if not satisfied with the solutions offered by the Project's GM or have requests for a higher-level explanation through the following communication tools:

- Website: https://www.ilbank.gov.tr/form/bilgiedinmeuluslararasi
- E-mail: bilguidb@ilbank.gov.tr and etikuidb@ilbank.gov.tr
- Phone number: +90 312-508 79 79
- Address for Official Letter: ILBANK Department of International Relations, GM Team

(letters must be marked as personal or confidential) Emniyet Mahallesi Hipodrom Caddesi No:9/21 Yenimahalle /ANKARA

The Presidency's Communication Centre (CIMER) provides a centralized complaint system for Turkish citizens, legal persons and foreigners. All internal and external stakeholders will also have the opportunity to benefit from CIMER. Individual applications can be carried out at the community relations desks at governorates, ministries and district governorates through the following communication tools.

- Call Centre:150
- Phone number: +90 312 525 55 55
- Fax number: +90 0312 473 64 94
- Address for Official Letter: Republic of Türkiye, Directorate of Communications Kizilirmak Mahallesi Mevlana Bulvari No:144 CANKAYA/ANKARA
- Individual applications: Community relations desks at governorates, ministries, and district governorates
- Mail addressed to Republic of Türkiye, Directorate of Communications: cumhurbaskanligi@tccb.gov.tr

The Foreigners Communication Center (YIMER) provides a centralized complaint system for foreigners. Foreign internal and external stakeholders will have the opportunity to benefit from YIMER.

Individual applications can be carried out at the Republic of Türkiye General Directorate of Migration Management through the following communication tools.

- www.yimer.gov.tr
- Call Centre: 157
- Phone number: +90 312 5157 11 22
- Fax number: +90 0312 920 06 09
- Address for Official Letter: Republic of Türkiye General Directorate of Migration Management, Camlica Mahallesi 122. Sokak No: 4 Yenimahalle /ANKARA
- Individual applications: Republic of Türkiye General Directorate of Migration Management.
- Mail addressed to Republic of Türkiye, Directorate of Communications

Any grievance and feedback lodged/conveyed through CIMER and/or YIMER related to the Project are received by Department for Planning and Coordination under the General Directorate of ILBANK. If the grievance and/or feedback is related with Department of International Relations, Department for Planning and Coordination will forward the complaint to the GM Team with ensuring its anonymity and confidentiality by observing the requirements stipulated by the Law on the Protection of Personal Data (Law No. 6698, 2016). The complaints will be recorded by the GM Team in the GM database and managed as per GM Procedures to timely inform the project on taking corrective actions. Both CIMER and YIMER will complement GM throughout the project life.

If the complaint cannot be resolved with the existing process, applicants can always apply to relevant legal institutions. Such institutions can be summarized as follows:

- Civil Courts of First Instance,
- Administrative Courts,
- Commercial Courts and First Instance,
- Labor Courts, and
- Ombudsman (https://ebasvuru.ombudsman.gov.tr/)

Furthermore, communities and individuals, who believe that they are adversely affected by a WB supported project, may submit complaints to the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. The details are provided in the project-specific SEP.

Furthermore, the project GM will include a channel to receive and address confidential complaints related with Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) and Gender Based Violence (GBV) with special measures in place. If an employee faces insults, ethnic discriminations or SEA/SH issue, s/he can either apply to a higher level superior or directly go to police station, as stipulated in the national referral system of the country for dealing such cases. The content and procedures of the project's GM will also have a reporting line on such cases in regard to SEA/SH issues and will be handled under full confidentiality. The GM focal point receiving the SEA/SH related grievance should direct this to national referral systems immediately and record that this has been directed, as set out in

the GM Procedure of ILBANK. All details of the complainant of the sensitive case will be kept strictly confidential.

5.4 Capacity Building and Training

Sub-borrower staff (trained by ILBANK) will deliver E&S training to contractors. Training contents are summarized in Table 21. Sub-borrower will identify specific training to be conducted in line with these modules and submit this to ILBANK prior to commencement of works.

Sub-borrower will ensure that E&S training programs are expanded to subcontractors by contractors in case their involvement in Sub-project implementation.

Table 21: Training Components for Training of Contractor Staff

Module	Training Name	Training Duration	Key Training Content
Module 1	ILBANK E&S Requirements	1 hour	- Overview of ILBANK E&S requirements: o ILBANK E&S Policy (including but not limited to the guiding principles on human rights, labor rights and working conditions, community health, safety and well-being, cultural heritage, gender equality, etc.) o External Communications (including stakeholder engagement, grievance management, etc.) o Monitoring, Review and Reporting o Labor Management, Contractor Management - ILBANK Code of Conduct
Module 2	Sub-project-level E&S Requirements for contractors as per sub-financing agreement conditions	3 hours	- Sub-project specific requirements: o E&S covenants included in sub-loan agreements o Sub-project ESAP requirements o Sub-project-level E&S assessment and management documentation (such as ESMP, SEP and other E&S management plans and procedures as applicable); o Emergency Preparedness and Response Plan including a training program for emergency responders including drills at regular intervals; o Specific training (such as driver training in case of involvement of vehicles or fleets of vehicles in Sub-project-operations, training of security forces in the use of force (and where applicable, firearms), and appropriate conduct toward workers and affected communities, etc.). o Preparation and implementation of Labor Management Plans.

One of the main necessities of the ESMP is trainings for KMM's and contractor's top-level management and employees.

Necessary training will be given to the personnel immediately upon the recruitment process, which will be also refreshed during the work period and will be performed at a number of levels. Training will cover workers' rights, contract requirements, Code of Conduct, grievance mechanism and contact channels. Compliance with the rules of code of conduct, including awareness of and rules relating to gender-based violence, sexual harassment, sexual exploitation and abuse, which are included in the trainings to be provided, will be in the contract articles of the personnel. Some short-term training is required for the Environment Manager, other staff members of the PIU and the contractor staff to raise their levels of environmental awareness. The training can be conducted by either some external experts or through the help of in-house expertise of the PIU and the consultants and help of ILBANK and WB.

In the long-term training, special environmental and social issues will be examined, and likely solutions provided to the PIU.

The mentioned training will take place in maximum two (2) days. This period will be determined by taking into account the responsible trainer's opinion on how many days it takes to explain the relevant subject, the evaluation of the trainees' prior knowledge and capacities on the relevant subjects and the detailed scope of the syllabus that has been prepared. The PIU is also responsible for the monitoring of the Contractor's actions on training. The training will be given after signing the works contracts and refresher trainings will be held as needed depending on work progress and construction activities. Measurement and evaluation should be performed at the end of the training given to the personnel. This is intended to measure the effectiveness of the training and to measure the trainees' level of knowledge and competence. According to the review results, the training program can be modified, or trainers can be replaced, or training can be repeated, if needed, upon determining whether the training is effective.

The basic training planned to be given are as follows, but not limited to:

- Waste Management,
- Energy Efficiency,
- Safe Driving,
- Occupational Health and Safety,
- Chance Find Procedure,
- Induction regarding Code of Conduct, GBV & SEA/SH, Grievance Mechanism, EHS and WB Requirements, and
- First-Aid and Emergency Preparedness Trainings

Environmental and Social Trainings will cover the waste and wastewater management, energy efficiency, waste that causes environmental pollution, hazardous waste management, traffic management, infectious diseases and grievance mechanism. Environmental and social trainings will be given to the appointed staff and workers of the Contractor by ILBANK before the construction starts. The planned training is expected to take four (4) hours. The training will be refreshed as the work site changes and/or workers change.

Chance Find Procedure Training

Chance Find Procedure training will cover the actions required if previously unknown heritage resources, particularly archaeological resources, during the project construction. The training will be given to the appointed staff and workers of the Contractor by ILBANK before the construction starts. The planned training is expected to take two (2) hours. The training will be refreshed as the work site changes and/or workers change.

Occupational Health and Safety Training

OHS Training will cover the work-site accidents and their causes in construction works, special working subjects according to the teams, technical subjects such as the correct use of hand tools and equipment. Also, the training will focus on information on labor legislation, legal rights and responsibilities of employees, workplace order, legal consequences arising from work accident and occupational disease. The training will be given to the workers of the Contractor by ILBANK before the construction starts.

The planned training is expected to take two (2) hours. The training will be refreshed as the work site changes and/or workers change.

Induction Training

Induction Training will cover the current risks and potentially dangerous areas, emergency action and safety practices related to the site. The training will be given to the workers of the Contractor by ILBANK two months before the construction starts. The planned training is expected to take two (2) hours. The training will be refreshed as the work site changes. Also, when a new worker arrives, the training will be repeated for that worker.

First Aid and Emergency Preparedness Training

The subjects of the First Aid and Emergency Preparedness Training will be defined by the relevant educational institutions. The training will be given to the appointed staff and workers of the Contractor before the construction starts. The planned training is expected to take 16 hours. The training will be refreshed as the work site changes and/or workers change.

The training programs will be developed annually and delivered by the PIU.

6. IMPLEMENTATION SCHEDULE AND COST ESTIMATES

6.1 Implementation Schedule

The mitigation and monitoring activities/actions which have been included in Chapter 4 will be implemented throughout the construction and operation phases of the Sub-project.

Site mobilizations and construction activities are expected to start at the end of 2024. The ESMP implementation will be parallel to the Project implementation schedule given in Section 3.7 of this report.

Implementation of the ESMP will start with the pre-construction stage of estimated 2 months

The ESMP will be integrated in the overall construction schedule of 18 months.

6.2 Cost Estimates

All costs for implementing the ESMP are included in the Project budget.

Resources for budget allocation are indicated below in Table 22 below:

Table 22: Estimated Budget Requirement for ESMP Implementation

Cost Items	Budget for Construction Stage	Estimated Amount (EUR)
ESMP Staff	KOSKI and KMM Resources	180,000
Training of Construction Workforce	Included in contractor budget	70,000
Health and Safety training and equipment	Included in contractor budget	200,000
Renewal of infrastructure	Contractor	50,000
Measurements and surveys based on grievances	Contractor	30,000
Management of accidental spills and leakages	Contractor	30,000
Regular maintenance of E&S systems Implementation of ESMP/E&S Instruments	Contractor	50,000
Post Construction Biodiversity Survey	KOSKI and KMM	10,000
Total		620,000

According to the protocol signed between KOSKI and KMM in the Annex 4, KOSKI will pay 70 percent of all expenses covered by Konya Metropolitan Municipality for the sub-project.

Annex 1: EIA Decision

T.C.
ÇEVRE, ŞEHİRCİLİK VE İKLİM DEĞİŞİKLİĞİ BAKANLIĞI
Çevresel Etki Değerlendirmesi, İzin ve Denetim Genel Müdürlüğü

ÇED OLUMLU BELGESİ

25.11.2014 tarih ve 29186 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren Çevresel Etki Değerlendirmesi Yönetmeliği'nin 14. maddesi gereğince; **"Güneş Enerjisi Santrali (Kurulu Gücü: 89,10 MWm / 70 MWe 99,902 ha)"** projesi hakkında **"Çevresel Etki Değerlendirmesi Olumlu"** kararı verilmiştir.

Mehrali ECER
Bakan a.
Genel Müdür

Karar Tarihi : 31.08.2022
Karar No : 6803
Proje Sahibi : KONYA SU VE KANALİZASYON İDARESİ GENEL MÜDÜRLÜĞÜ
Proje Yeri : Konya İli, Karatay İlçesi, Saraçoğlu Mahallesi Ada: 31478 Pafta: M29d04a4a Parsel:5
Kapasite: 89,10 MWm / 70 MWe ; 99,902 ha

EIA Positive Certificate for the **Solar Power Plant**
Installed Capacity: 89,10 MWp/ 70 MWe
Land Parcel: 31478/5
Area: 99.902 ha
Project Owner: KOSKI
Date of Certificate: 31.08.2022

Annex 2: Title Deed for the Sub-project

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 7-2-2024-11:10

webtapu

Kaydı Oluşturan: YUSUF KARÇA (Konya Büyükşehir Belediyesi)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz	Ada/Parsel:	31478/3
Taşınmaz Kimlik No:	87412811	AT Yüzölçüm(m2):	999845.19
İl/İlçe:	KONYA/KARATAY	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Karatay	Bağımsız Bölüm Brüt YüzÖlçümü:	
Mahalle/Köy Adı:	SARAÇOĞLU Mah.	Bağımsız Bölüm Net YüzÖlçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	71/7770	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	ARSA

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
287387106	(SN:47) MALİYE HAZİNESİ VKN:6110312806	-	1/1	999845.19	999845.19	İfraz İşlemi (TSM) 17-12-2014 28240	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (**https://webtapu.tkgm.gov.tr** adresinden) **9XYXMVwgbhe** kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

Land Parcel: 31478/3
Land Ownership: National Property

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR. Tarih: 7-2-2024-11:12

webtapu

Kaydı Oluşturan: YUSUF KARÇA (Konya Büyükşehir Belediyesi)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz	Ada/Parsel:	31478/5
Taşınmaz Kimlik No:	87413434	AT Yüzölçüm(m2):	999802.91
İl/İlçe:	KONYA/KARATAY	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Karatay	Bağımsız Bölüm Brüt YüzÖlçümü:	
Mahalle/Köy Adı:	SARAÇOĞLU Mah.	Bağımsız Bölüm Net YüzÖlçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	71/7772	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	ARSA

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
287390450	(SN:47) MALİYE HAZİNESİ VKN:6110312805	-	1/1	999802.91	999802.91	İfraz İşlemi (TSM) 17-12-2014 28243	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (**https://webtapu.tkgm.gov.tr** adresinden) **aRWkm9pyYpl** kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

Land Parcel: 31478/5
Land Ownership: National Property

Annex 3: Letter of Permitting Status for Non-Agricultural Use

T.C.
KONYA VALİLİĞİ
İl Tarım ve Orman Müdürlüğü

Sayı : 67894191-230.04.02-4848398
Konu : Tarım Dışı Amaçla Kullanım İzinleri

KONYA BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA
(İmar ve Şehircilik Dairesi Başkanlığı)

İlgi : 04.03.2022 tarihli ve 89646320-045.01-87720 sayılı yazınız.

İlgi yazınızda Konya İli, Karatay İlçesi, Saraçoğlu Mahallesi 31478/3 ve 31478/5 ada/parsel numaralı arazilerin arazi sınıf tespitinin yapılması talep edilmektedir.

Büyük Ova Koruma alanı sınırları dışında bulunan bahse konu arazinin sınıfı Kuru Marjianl Tarım Arazisi (KTA) olarak belirlenmiştir. Yapılan işlem sınıf tespiti olup, Bakanlığımız mevzuatları kapsamında alınması gereken izinleri içermemektedir, Bu alanda Güneş Enerjisi Santrali (GES), kurulması veya bu alanların tarım dışı olarak kullanılması istenmesi halinde Bakanlığımız mevzuatları kapsamında izin alınması gerekmektedir.

Bilgilerinize arz ederim.

Ali ERGİN
İl Müdürü

Provincial Directorate of Agriculture and Forestry

Approval for Non-Agricultural Land-use

Land class: Dry marginal land outside Great Plain Conservation Zone

Annex 4: Protocol between KMM and KOSKI

SARAÇOĞLU GÜNEŞ ENERJİSİ SANTRALİ (GES) PROTOKOLÜ

TARAFLAR

MADDE 1- İşbu protokol; Konya Büyükşehir Belediye Başkanlığı ve Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü arasında yapılmıştır. Tarafların haberleşme bilgileri ve adresleri aşağıdaki gibidir.

a) Konya Büyükşehir Belediye Başkanlığı
Adres : Mevlana Kültür Merkezi Çimenlik Mahallesi Aslanlıkışla Caddesi No:8 Karatay / Konya
Telefon : 444 55 22
Belgegeçer : 0 332 221 15 76

b) Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü
Adres : İhsaniye Mah. Kazım Karabekir Cd. No:56, 42060 Selçuklu/Konya
Telefon : 0 332 221 61 00
Belgegeçer : 0 332 235 46 34

AMAÇ

MADDE 2- 30 MW Konya Büyükşehir Belediyesi adına, 70 MW Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü adına olmak üzere toplam 100 MW kapasiteli GES projesinin kurulabilmesi için iş ve işlemlerin Konya Büyükşehir Belediyesi tarafından yürütülmesidir.

KAPSAM

MADDE 3- Bu protokol; Konya Büyükşehir Belediyesi ve Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü arasında, Karatay İlçesi Saraçoğlu Mahallesinde bulunan 31478 ada 3 parselde 30 MW, 31478 ada 5 parselde 70 MW olmak üzere kurulması planlanan toplam 100 MW kapasiteli GES projesinin tek elden yürütülebilmesi için Konya Büyükşehir Belediyesinin yetkilendirilmesine ilişkin usul ve esasları kapsamaktadır.

DAYANAK

MADDE 4- Bu protokol; 5393 sayılı Belediye Kanunu 75. maddesine dayanılarak hazırlanmıştır

TANIMLAR - KISALTMALAR

MADDE 5- (1) Bu protokolde geçen;
a) Belediye : Konya Büyükşehir Belediye Başkanlığı'nı
b) KOSKİ : Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü'nü ifade eder.
c) GES : Güneş Enerji Santrali
d) Medaş : Meram Elektrik Dağıtım A.Ş.
e) Tedaş :Türkiye Elektrik Dağıtım A.Ş.
f) ÇED :Çevresel Etki Değerlendirme Raporu
g) Teiaş :Türkiye Elektrik Dağıtım A.Ş.'yi ifade eder.

TARAFLARIN HAK VE YÜKÜMLÜKLERİ

MADDE 6- Tarafların hak ve yükümlülükleri aşağıda belirtilmiştir.
a) **Konya Büyükşehir Belediye Başkanlığı'nın yükümlülükleri;**
1) Proje alanlarının CED raporlarının, zemin etüt raporlarının, uygulama

1

projelerinin, Medaş, Teiaş vb. her türlü proje ve dokümanların hazırlatılması

2) GES yapım işlerinin uygulatılması.

3) Gerekli izin, lisans vb. alınması.

4) Trafo Merkezi, enerji nakil hattı vb. işlerinin yapılması.

5) Bu proje kapsamındaki kamulaştırmaya yönelik iş ve işlemlerinin yürütülmesi.

6) 30 MW GES ve 70 MW GES proje ve yapım bedellerini karşılayacaktır.

7) Söz konusu projeye ilişkin tüm harcamaların % 30'unu Büyükşehir Belediyesi tarafından ödenecektir.

b) KOSKİ Genel Müdürlüğü'nün yükümlülükleri;

1) Her türlü teknik personel ve ekipman desteği sağlayacaktır

2) Saraçoğlu GES Projesi (30+70 MW) için Büyükşehir Belediyesi tarafından karşılanan tüm harcamaların %70'ini ödeyecektir.

DİĞER HÜKÜMLER

MADDE 7- (1) Taraflar, protokolün uygulanmasına yönelik iş birliği yapacaklardır.

(2) İş birliği anlaşmasına göre onay, görüş, izin, bildirim vb. yazılı olarak yapılacaktır.

(3) Bu projenin yürütülmesine ilişkin her türlü ihalelerin yapılması, sözleşmelerin yürütülmesi vb. iş ve işlemler Büyükşehir Belediyesi tarafından yürütülecektir.

ANLAŞMAZLIKLARIN ÇÖZÜMÜ

MADDE 8- (1) Bu protokolün uygulanmasından doğabilecek her türlü ihtilaf, paydaş kurumlar arasında karşılıklı görüşme ve uzlaşı yoluyla çözülecektir.

(2) Hukuki ihtilaf halinde Konya Mahkemeleri ve İcra Daireleri yetkilidir.

PROTOKOLÜN SÜRESİ VE FESHİ

MADDE 9- (1) İş bu protokol yapım işlerinin tamamlanarak işletmeye alındığı tarihte sona erecektir.

(2) Taraflardan birisi protokol şartlarını uymadığı takdirde diğer taraf protokolü feshetme hakkına sahiptir.

YÜRÜTME

MADDE 10- (1) Protokolde yer alan iş ve işlemleri taraflar birlikte yürütür.

(2) Protokolde yer almayan hususlarla ilgili işlemler, tarafların iş birliği ile alınan kararları doğrultusunda yürüttülür.

YÜRÜRLÜK

MADDE 11- (1) Taraflarca imzalanan bu protokol Konya Büyükşehir Belediye Meclisinin onayı ile yürürlüğe girecektir.

(2) Bu protokol 11 (onbir) maddeden ibaret olup, 3 (üç) nüsha olarak 11.02.2022 tarihinde imzalanmıştır.

AHMET DEMİR
Genel Müdür

ERCAN USLU
Başkan a.
Genel Sekreter

SARAÇOĞLU GÜNEŞ ENERJİ SANTRALİ (GES) PROTOKOLÜNE EK PROTOKOL

TARAFLAR

MADDE 1- İşbu protokol; Konya Büyükşehir Belediye Başkanlığı ve Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü arasında yapılmıştır. Tarafların haberleşme bilgileri ve adresleri aşağıdaki gibidir.

a) Konya Büyükşehir Belediye Başkanlığı
Adres : Şemsi Tebrizi Mah. Ankara Cad. No:6, 42030 Karatay/Konya
Telefon : 444 55 22
Belgegeçer : 0 332 221 15 76

b) Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü
Adres : İhsaniye Mah. Kazım Karabekir Cad. No:56, 42060 Selçuklu/Konya
Telefon : 0 332 221 61 00
Belgegeçer : 0 332 235 46 34

AMAÇ

MADDE 2- 30 MW Konya Büyükşehir Belediyesi adına, 70 MW Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü adına olmak üzere toplam 100 MW kapasiteli GES projesinin kurulduktan sonra işletmesi için gerekli iş ve işlemlerin Konya Büyükşehir Belediyesi tarafından yürütülmesidir.

KAPSAM

MADDE 3- Bu protokol; Konya Büyükşehir Belediyesi ve Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü arasında, Karatay İlçesi Saraçoğlu Mahallesinde bulunan 31478 ada 3 parselde 30 MW, 31478 ada 5 parselde 70 MW olmak üzere kurulması planlanan toplam 100 MW kapasiteli GES projesinin işletmesinin tek elden yürütülebilmesi için Konya Büyükşehir Belediyesinin yetkilendirilmesine ilişkin usul ve esasları kapsamaktadır.

DAYANAK

MADDE 4- Bu protokol; 5393 sayılı Belediye Kanununun 75. Maddesi ve 11.02.2022 tarihinde imzalanarak 18.03.2022 tarih ve 207 sayılı Büyükşehir Belediyesi Meclisi Kararı ile onaylanan Saraçoğlu Güneş Enerji Santrali (GES) Protokolüne dayanılarak hazırlanmıştır.

TANIMLAR - KISALTMALAR

MADDE 5- (1) Bu protokolde geçen;
a) Belediye : Konya Büyükşehir Belediye Başkanlığı'nı
b) KOSKİ : Konya Su ve Kanalizasyon İdaresi Genel Müdürlüğü'nü ifade eder.
c) GES : Güneş Enerji Santrali
d) Medaş : Meram Elektrik Dağıtım A.Ş
e) Tedaş : Türkiye Elektrik Dağıtım A.Ş
f) ÇED : Çevresel Etki Değerlendirme Raporu
g) Teiaş : Türkiye Elektrik İletim A.Ş'yi ifade eder.

TARAFLARIN HAK VE YÜKÜMLÜKLERİ

MADDE 6- Tarafların hak ve yükümlülükleri aşağıda belirtilmiştir.
a) Konya Büyükşehir Belediye Başkanlığı'nın yükümlülükleri;
1) GES ile ilgili işletme işlemlerinin uygulatılması.

2) İşletme ile ilgili çıkan arızaların Belediye tarafından giderilmesi.
3) Vatandaşlardan gelen taleplerin değerlendirilmesi.
4) Belediye sahasındaki GES tesislerinin işletme giderlerini karşılayacaktır.
5) Ortak tesislere ait işletme giderleri gücü oranında paylaştırılacaktır.
6) İhtiyaç halinde gerekli tadilatlar Belediye tarafından karşılanacaktır. Bunlara ait giderler gücü oranında paylaştırılacaktır.

b) KOSKİ Genel Müdürlüğü'nün yükümlülükleri;
1) Her türlü teknik personel ve ekipman desteği sağlayacaktır.
2) KOSKi sahasındaki GES tesislerinin işletme giderlerini karşılayacaktır.
3) Ortak tesislere ait işletme giderleri gücü oranında paylaştırılacaktır.
4) Belediye tarafından karşılanan tadilatlara giderleri, kendi gücü oranında ödemekle yükümlüdür.

DİĞER HÜKÜMLER
MADDE 7- (1) Taraflar, protokolün uygulanmasına yönelik iş birliği yapacaklardır.

(2) İş birliği anlaşmasına göre onay, görüş, izin, bildirim vb. yazılı olarak yapılacaktır.

(3) Bu proje ve işletme hususlarının yürütülmesine ilişkin her türlü ihalelerin yapılması, sözleşmelerin yürütülmesi vb iş ve işlemler Büyükşehir Belediyesi tarafından yürütülecektir.

ANLAŞMAZLIKLARIN ÇÖZÜMÜ
MADDE 8- (1) Bu protokolün uygulanmasından doğabilecek her türlü ihtilaf, paydaş kurumlar arasında karşılıklı görüşme ve uzlaşı yoluyla çözülecektir.
(2) Hukuki ihtilaf halinde Konya Mahkemeleri ve İcra Daireleri yetkilidir.

PROTOKOLÜN SÜRESİ VE FESHİ
MADDE 9- (1) İş bu protokol işletme süresince devam eder.
(2) Taraflardan birisi protokol şartlarına uymadığı takdirde diğer taraf protokolü feshetme hakkına sahiptir.

YÜRÜTME
MADDE 10- (1) Protokolde yer alan iş ve işlemleri taraflar birlikte yürütür.
(2) Protokolde yer almayan hususlarla ilgili işlemler, tarafların iş birliği ile alınan kararları doğrultusunda yürütülür.

YÜRÜRLÜK
MADDE 11- (1) Taraflarca imzalanan bu ek protokol imzalandığı tarihte yürürlüğe girer.
(2) Bu protokol 11 (onbir) maddeden ibaret olup, 3 (üç) nüsha olarak 11/11/2024 tarihinde imzalanmıştır.

Ahmet DEMİR
Genel Müdür

Ercan USLU
Başkan a.
Genel Sekreter

Annex 5: Notarized Consent Letters

Türkiye Cumhuriyeti

Tarih: 07/06/2024
Yev.No: (A)

T.C.
KONYA 4.
NOTERLİĞİ

KONYA 4. NOTERİ
ŞENGÜL KOLOĞLU

NİŞANTAŞI MAH. DR. HULUSİ BAYBAL CAD. GÜNEŞADİL SİTESİ GÜNEŞ BLOK NO:26/A SELÇUKLU / KONYA
Tel:+903322369022
Fax:+903322369100

DÜZENLEME ŞEKLİNDE MUVAFAKATNAME №06594

Yedi Haziran İkibinyirmidört, Cuma günü 07/06/2024
Aşağıda mühür ve imzası bulunan ben KONYA 4. NOTERİ **ŞENGÜL KOLOĞLU** Yerine İmzaya Yetkili Katip **MUZAFFER KARA** NİŞANTAŞI MAH. DR. HULUSİ BAYBAL CAD. GÜNEŞADİL SİTESİ GÜNEŞ BLOK NO:26/A SELÇUKLU / KONYA adresindeki dairemde görev yaparken davet üzerine işlerinin yoğunluğu nedeniyle nedeni ile gidilen **Melikşah Mah. Beyşehir Cad. Rektörlük Binası No: 7 /2 Meram / KONYA** adresinde **7210380610** vergi numaralı Melikşah Mah. Beyşehir Cad. Rektörlük Binası No: 7 /2 Meram / KONYA adresinde faaliyette bulunan **PANAGRO TARİM HAYVANCILIK GIDA SANAYİ VE TİCARET ANONİM ŞİRKETİ** adına **YETKİLİSİ** olarak hareket eden, gösterdiği T.C. İçişleri Bakanlığı tarafından verilmiş **28/03/2027** geçerlilik tarihli, **A02L94361** seri numaralı , fotoğraflı Türkiye Cumhuriyeti Kimlik Kartına göre , baba adı **KEMAL** , ana adı **ÜMMÜGÜLSÜM** , doğum tarihi **10/10/1972** olan, **12560648844** T.C. kimlik numaralı, halen **Yazır Mah. Yeni İstanbul Cad. No: 205 / 9 Selçuklu / KONYA** adresinde oturduğunu ve **okuryazar olduğunu** bildiren ilgili **TURĞUT SIĞIRCI** , **7210380610** vergi numaralı Melikşah Mah. Beyşehir Cad. Rektörlük Binası No: 7 /2 Meram / KONYA adresinde faaliyette bulunan **PANAGRO TARİM HAYVANCILIK GIDA SANAYİ VE TİCARET ANONİM ŞİRKETİ** adına **YETKİLİSİ** olarak hareket eden, gösterdiği T.C. İçişleri Bakanlığı tarafından verilmiş **31/05/2027** geçerlilik tarihli, **A03C25608** seri numaralı , fotoğraflı Türkiye Cumhuriyeti Kimlik Kartına göre , baba adı **ABDURRAHMAN NACİ** , ana adı **FERİDE** , doğum tarihi **16/08/1974** olan, **17005066634** T.C. kimlik numaralı, halen **Melikşah Mah. Fatihler Sk. No: 9 / 3 Meram / KONYA** adresinde oturduğunu ve **okuryazar olduğunu** bildiren ilgili **YUSUF TÜMER** , bana başvurarak **MUVAFAKATNAME** düzenlenmesini istediler. İlgililerin kimlikleri hakkında yukarıda yazılı belgeler ile kanı sahibi olduğum gibi bu işlemi yapma yeteneklerinin bulunduğunu ve ilgililerden **TURĞUT SIĞIRCI, YUSUF TÜMER** adlı kişilerin okuryazar olduklarını anladım. **KONYA 4.** Noterliği'nden **07/12/2022** tarih ve **13991** yevmiye no ile tasdikli imza sirkülerinin incelenmesinden **PANAGRO TARİM HAYVANCILIK GIDA SANAYİ VE TİCARET ANONİM ŞİRKETİ** ünvanlı tüzel kişi tarihinden itibaren **MÜŞTEREK 29/12/2024 TARİHİNE KADAR** süre ile temsile **TURĞUT SIĞIRCI, YUSUF TÜMER** isimli kişilerin yetkili olduğu görüldü. İlgililer; **TURĞUT SIĞIRCI, YUSUF TÜMER** şu suretle söze başladılar.

"TEİAŞ Genel Müdürlüğü ile Konya Büyükşehir Belediyesi arasında imzalanan bağlantı anlaşması kapsamında tesis edilecek olan 154 kV Koski GES TM – (Alibeyhöyüğü-Alakova) Brş.N (Doğu-Batı) Enerji İletim Hattı güzergahına isabet eden Konya ili, Karatay ilçesi, Saraçoğlu Mahallesi, 31476 ada, 1 parsel numaralı taşınmazın kamulaştırma çalışmaları kapsamında, ifraz, kamulaştırma, irtifak hakkı, cins değişikliği ve kamulaştırma kanunun kapsamında yapılması planlanan tüm işlemlerin yapılmasında tarafımızca sakınca bulunmamaktadır. muvafakatımın bulunduğunu kabul ve beyan ederim." diyerek sözlerini bitirdi.

Yazılan bu tutanak, okuryazar ilgililere okunması için verildi. Okudular.Gerçek isteklerinin aynen yazıldığını okuryazar ilgililerin bildirmeleri üzerine okuryazar ilgililer tarafından ve tarafımdan imzalandı, mühürlendi. **Yedi Haziran İkibinyirmidört, Cuma günü 07/06/2024**

PANAGRO TARIM HAYVANCILIK GIDA SANAYİ VE TİCARET ANONİM ŞİRKETİ
7210380610
Melikşah Mah. Beyşehir Cad. Rektörlük Binası No: 7 /2 Meram / KONYA
YETKİLİSİ:
TURĞUT SIĞIRCI 12560648844
Okudum

YETKİLİSİ:
YUSUF TÜMER 17005066634
Okudum

KONYA 4. NOTERİ
ŞENGÜL KOLOĞLU
Yerine
İmzaya Yetkili Katip
MUZAFFER KARA

KDV, Harç, Damga Vergisi ve Değerli Kağıt bedeli makbuz karşılığı tahsil edilmiştir.
MK14 A / S Yazı : 3 / 0 Kod: 7.3.1

A-2 / 1 - 1

NBS 2024060704200043366440680

Türkiye Cumhuriyeti Tarih: 04/07/2024 Yev.No: (A)

T.C.
KONYA 9.
NOTERLİĞİ

KONYA 9. NOTERİ
ALİ CAN

NİŞANTAŞ MAH. DR. HULUSİ BAYBAL CAD. HAZIM ULUSAHİN İŞ MERKEZİ A BLOK ZEMİN KAT N:1/K-1/L SELÇUKLU / KONYA
Tel:+903322370261
Fax:+903322370261

MUVAFAKATNAME

ZU625

TEİAŞ Genel Müdürlüğü ile Konya Büyükşehir Belediyesi aasında imzalanan bağlantı anlaşması kapsamında tesis edilecek olan 154 kV Koski GES TM - (Alibeyhüyüğü Alakova) Brş. N (Doğu-Batı) Enerji İletim Hattı güzergahına isabet eden Konya ili, Karatay ilçesi, Saraçoğlu Mahallesi, 31477 ada, 5 parsel numaralı taşınmazın kamulaştırma çalışmaları kapsamında, ifraz, kamulaştırma, irtifak hakkı, cins değişikliği ve kamulaştırma kanunu kapsamında yapılması planlanan tüm işlemlerin yapılmasına tarafımca sakınca bulunmayıp, muvafakatımın bulunduğunu kabul ve beyan ederim.

MUVAFAKAT EDEN
HALİL İBRAHİM GÜÇLÜ 44077622024
Yazır Mah. Şehit Ali Vasfi Güney Cad. No: 12 / 28 Selçuklu / KONYA
VEKİLİ:
İSA GÜÇLÜ 44047623044

Bu Onaylama işlem altındaki imzanın baba adı **ALİ NİHAT** , ana adı **FETİYE** , doğum tarihi **10/01/1975** olan **44077622024** T.C. kimlik numaralı **HALİL İBRAHİM GÜÇLÜ** adına **VEKİLİ** olarak hareket eden, gösterdiği T.C. İçişleri Bakanlığı tarafından verilmiş **09/04/2028** geçerlilik tarihli, **A10N85138** seri numaralı, fotoğraflı Türkiye Cumhuriyeti Kimlik Kartına göre , baba adı **ALİ NİHAT** , ana adı **FETİYE** , doğum tarihi **07/11/1982** olan ve halen yukarıdaki adreste bulunduğunu, **okuryazar olduğunu** bildiren **44047623044** T.C. kimlik numaralı **İSA GÜÇLÜ** isimli kişiye ait olduğunu noterlikte huzurumda alındığını, onaylarım. **Dört Temmuz İkibinyirmidört, Perşembe günü 04/07/2024**

DAYANAK: **KONYA 16.** Noterliği'nin **02/06/2021** tarih ve **13085** yevmiye numaralı, **HALİL İBRAHİM GÜÇLÜ** tarafından **İSA GÜÇLÜ** adlı kişiye verilen vekaletnamenin incelenmesinden bu işlemi yapmaya yetkisi olduğu görüldü.

KONYA 9. NOTERİ
ALİ CAN
Yerine
İmzaya Yetkili Katip
ABDURRAHMAN TOSUN

KDV, Harç, Damga Vergisi ve Değerli Kağıt bedeli makbuz karşılığı tahsil edilmiştir.
AT24 A / S Yazı : 1 / 0 Kod: 7.3.1

A-1 / 1 - 1

NBS 20240704042000990906494B8

KONYA BÜYÜKŞEHİR BELEDİYESİ GÜNEŞ ENERJİ SANTRALİ PROJESİ GÖRÜŞME TUTANAĞI

Tarih: 05.06.2024

Yer: Konya Turizm binası

Görüşme Konusu:

Konya Büyükşehir Belediyesi Güneş Enerji Santrali projesi kapsamında tesis edilecek enerji iletim hattı ile ilgili hususlar.

- Enerji iletim hattı, Konya İli Karatay ilçesi Saraçoğlu Mahallesi 31474 Ada 1 Parsel üzerinde Maliye Arazisi KONYA TURİZM OTO NAK. LTD. ŞTİ. 'ye tahsisli arazi üzerinden geçecektir.

- Enerji iletim hattına ait iletkenlerin izdüşümü 9952 m^2 + 9772 m^2 alanı kapsayacak olup, 1 adet direk yeri ise 179 m^2'lik bir alanı kaplayacaktır.

İşbu tutanak kapsamında taraflar arasında bilgilendirme toplantısı gerçekleştirilmiş ve imza altına alınmıştır.

	İsim – Soy İsim	İmza	Kurum
1	MEHMET FATİH DİNDAZ		Konya Turizm
2	Cengiz Coşkun		Yönetici
3	Hamdi BEKTAŞ		Konya Büyükşehir
4	Halil AKTAŞ		Konya Bü.B.
5			
6			

Annex 6: Presidential Expropriation Decision for LÖSEV Allocated Land

17 Temmuz 2024 ÇARŞAMBA Resmî Gazete Sayı : 32604

CUMHURBAŞKANI KARARI

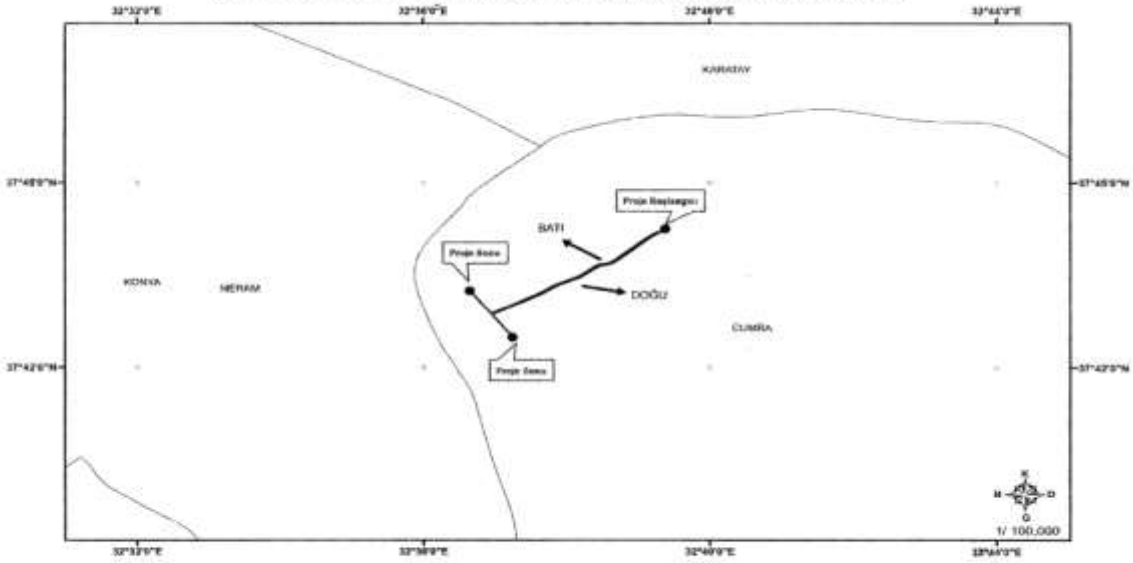
Karar Sayısı: 8733

Bağlantı anlaşması uyarınca tesis edilecek olan ve ekli haritada güzergâhları gösterilen "154 kV KOSKİ GES TM (Alibeyhöyüğü-Alakova) Brş.N. Enerji İletim Hattı (Doğu-Batı) Projesi" kapsamında ekli listede bulunduğu yer ile ada ve parsel numarası gösterilen taşınmazda, direk yerlerinin mülkiyet şeklinde, iletken salınım gabarisinin ise irtifak hakkı kurulmak suretiyle Türkiye Elektrik İletim Anonim Şirketi Genel Müdürlüğü tarafından acele kamulaştırılmasına, 2942 sayılı Kamulaştırma Kanununun 27 nci maddesi gereğince karar verilmiştir.

16 Temmuz 2024

Recep Tayyip ERDOĞAN
CUMHURBAŞKANI

16/7/2024 TARİHLİ VE 8733 SAYILI CUMHURBAŞKANI KARARININ EKİ HARİTA



TÜRKİYE ELEKTRİK İLETİM A.Ş.	———	ACELE KAMULAŞTIRMA YAPILACAK 154 kV KOSKİ GES TM (ALİBEYHÖYÜĞÜ-ALAKOVA) BRŞ.N. ENERJİ İLETİM HATTI (DOĞU-BATI) GÜZERGAHLARI

16/7/2024 TARİHLİ VE 8733 SAYILI CUMHURBAŞKANI KARARININ EKİ

LİSTE

İL	İLÇE	KÖY/MAHALLE	ADA NO	PARSEL NO
KONYA	KARATAY	SARAÇOĞLU	31475	15

Annex 7: E&S Incident Notification Form Template

1) Incident Details		
Date of Incident: [*Please indicate*]	**Time of Incident:** [*Please indicate*]	
Location of the Incident:	[*Please indicate*]	
Full Name of Sub-borrower:	[*Please indicate*]	
Date Reported to ILBANK: [*Please indicate*]	**Reported to ILBANK by**: [*Please indicate]*	**Notification Type**: [*Please indicate; e-mail/phone call/media notice/other]*
Date Reported to WB: [*Please indicate*]	**Reported to WB by**: [*Please indicate]*	**Notification Type**: [*Please indicate; e-mail/phone call/media notice/other]*
Full Name of the Contractor of the Sub-project:	[*Please indicate]*	
Full Name of the Sub-contractor involved in the incident:	[*Please indicate]*	

2) Type of incident (please check all that apply)[3]	
☐ Fatality	☐ Acts of violence/protest
☐ Lost time injury	☐ Unexpected impacts on heritage resources
☐ Displacement without due process	☐ Unexpected impacts on biodiversity resources
☐ Child labor	☐ Environmental pollution incident
☐ Forced labor	☐ Dam failure
☐ Disease outbreaks	☐ Other

3) Description/Narrative of Incident

For example:

I. *What is the incident?* [*Please briefly describe*]

II. *What were the conditions or circumstances under which the incident occurred (if known)?* [*Please briefly describe*]

III. *Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?* [*Please briefly describe*]

IV. *Is the incident still ongoing or is it contained?* [*Please briefly describe*]

V. *Have any relevant authorities been informed?* [*Please briefly describe*]

[3] See Appendix 2 for definitions.

4) Actions taken to contain the incident			
Short Description of Action	**Responsible Party**	**Expected Date**	**Status**

For incidents involving a Contractor:

Name of Contractor:
Have the works been suspended? Yes ☐ No ☐
Note: Please attach a copy of the instruction suspending the works

5) What support has been provided to affected people

[*Please briefly describe*]

APPENDICES

Appendix 1: Supporting documents

[Note: Please mark the relevant documents available at this stage and submit them attached to the report]:

☐ Copy of the social security registration records of the victims and involved persons
☐ Copy of the instruction suspending the works
☐ Statement of victims
☐ Statement of witnesses
☐ Copies of notifications done to the relevant authorities
☐ Copies of legal investigation reports of relevant authorities
☐ Copies of E&S training records of the affected and involved persons
☐ Copies of OHS training records of the affected and involved persons
☐ Photographs related to the incident
☐ Others

Appendix 2: Incident Types

The following are incident types to be reported using the environmental and social (E&S) incident response process:

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

Displacement Without Due Process: The permanent or temporary displacement 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 and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected Impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hours or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Annex 8: E&S Incident Investigation Form Template

1) Investigation Findings

For example:

I. *where and when the incident took place,*
II. *who was involved, and how many people/households were affected,*
III. *what happened and what conditions and actions influenced the incident,*
IV. *what were the expected working procedures and were they followed,*
V. *did the organization or arrangement of the work influence the incident,*
VI. *were there adequate training/competent persons for the job, and was necessary and suitable equipment available,*
VII. *what were the underlying causes; where there any absent risk control measures or any system failures.*

2) Corrective Actions from the investigation to be implemented (to be fully described in Corrective Action Plan)

Action	Responsible Party	Expected Date

3a) Fatality/Lost Time Injury Information

Fatality ☐ **Lost time injury** ☐

Immediate cause of fatality/injury for worker or member of the public (please check all that apply) [4]**:**

☐ Caught in or between objects
☐ Struck by falling objects
☐ Stepping on, striking against, or struck by objects
☐ Drowning
☐ Chemical, biochemical, material exposure
☐ Falls, trips, slips
☐ Fire & explosion
☐ Electrocution
☐ Homicide
☐ Medical Issue
☐ Suicide
☐ Project Vehicle Work Travel
☐ Non-project Vehicle Work Travel
☐ Project Vehicle Commuting
☐ Non-project Vehicle Commuting
☐ Vehicle Traffic Accident (Members of Public Only)
☐ Other

Name	Age/ Date of Birth	Nationality	Gender	Date of Fatality/ Injury	Cause of Fatality/ Injury	Affected Party (Employee/ Public)
			☐ Female ☐ Male			☐ Sub-borrower employee ☐ Contractor employee ☐ Sub-contractor employee ☐ Public

[4] See Appendix 1 for definitions

3b) Financial Support/Compensation Types (to be fully described in Corrective Action Plan template – template is given in Appendix 3)

☐ No Compensation Required
☐ Workman's Compensation/National Insurance
☐ Contractor Direct
☐ Contractor Insurance
☐ Other
☐ Court Determined Judicial Process

Name	Compensation Type	Compensation Amount (TRY)	Responsible Party

4) Supplementary Narrative

Appendix 1: Definition of fatality/injury immediate causes

1. **Caught in or between objects:** caught in an object; caught between a stationary object and moving object; caught between moving objects (except flying or falling objects).
2. **Struck by falling objects:** slides and cave-ins (earth, rocks, stones, snow, etc.); collapse (buildings, walls, scaffolds, ladders, etc.); struck by falling objects during handling; struck by falling objects.
3. **Stepping on, striking against, or struck by objects:** stepping on objects; striking against stationary objects (except impacts due to a previous fall); Striking against moving objects; Struck by moving objects (including flying fragments and particles) excluding falling objects.
4. **Drowning:** respiratory impartment from submersion/emersion in liquid.
5. **Chemical, biochemical, material exposure:** exposure to or contact with harmful substances or radiations.
6. **Falls, trips, slips:** falls of persons from heights (e.g., trees, buildings, scaffolds, ladders, etc.) and into depths (e.g., wells, ditches, excavations, holes, etc.) or falls of persons on the same level.
7. **Fire & explosion:** exposure to or contact with fires or explosions.
8. **Electrocution:** exposure to or contact with electric current.
9. **Homicide:** a killing of one human being by another.
10. **Medical Issue:** a bodily disorder or chronic disease.
11. **Suicide:** the act or an instance of taking, or attempting to take, one's own life voluntarily and intentionally.
12. **Others:** any other cause that resulted in a fatality or injury to workers or members of the public.

Vehicle Traffic

13. **Project Vehicle Work Travel:** traffic accidents in which project workers, using project vehicles, are involved during working hours and which occur in the course of paid work.
14. **Non-project Vehicle Work Travel:** traffic accidents in which project workers, using non-project vehicles, are involved during working hours and which occur in the course of paid work.
15. **Project Vehicle Commuting:** traffic accidents in which project workers, using project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
16. **Non-project Vehicle Commuting:** traffic accidents in which project workers, using non-project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
17. **Vehicle Traffic Accident (Members of Public Only):** traffic accidents in which non-project workers/members of the public are involved in an accident while travelling for any purpose.

Appendix 2: Supporting documents

[Note: Please mark the relevant documents available and submit them attached to the report]:

☐ Copy of the social security registration records of the victims and involved persons

☐ Copy of the instruction suspending the works

☐ Statement of victims

☐ Statement of witnesses

☐ Copies of notifications done to the relevant authorities

☐ Copies of legal investigation reports of relevant authorities

☐ Copies of E&S training records of the affected and involved persons

☐ Copies of OHS training records of the affected and involved persons (such as basic OHS training, induction training, visitors training, job-specific training, refreshment training, etc.)

☐ Photographs related to the incident

☐ Health examination records of the affected and involved employees

☐ Copies of Personal Protective Equipment delivery forms (signed copies)

☐ Root Cause Analysis completed for the incident

☐ Information/documentation related to any judicial process

☐ Others

Appendix 3: Corrective Action Plan template

Action No:	Brief Description of E&S non-compliance	Corrective Action	Financial and Human Resources Required	Responsible Party	Due Date for Completion of Corrective Action	Indicators for Successful Completion of Corrective Action	Status of Corrective Action