



2024

# Gümüşhacıköy SPP Sub-Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

GÜMÜŞHACIKÖY MUNICIPALITY

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## List of Abbreviations

<b>AF</b>	Additional Financing
<b>AFAD</b>	Disaster and Emergency Management Authority
<b>CLO</b>	Community Liaison Officers
<b>E&amp;S</b>	Environment and Social
<b>EHS</b>	Environment Health and Safety
<b>EHSMP</b>	Environment Health Safety Management Plan
<b>EIA</b>	Environmental Impact Assessment
<b>EMRA</b>	Energy Market Regulatory Authority
<b>ESF</b>	Environmental and Social Framework
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMF</b>	Environmental and Social Management Framework
<b>ESMP</b>	Environmental and Social Management Plan
<b>ESMR</b>	Environmental and Social Monitoring Report
<b>ESP</b>	Environmental and Social Policy
<b>ESS</b>	Environmental and Social Standards
<b>EU</b>	European Union
<b>GIS</b>	Geographic Information System
<b>GM</b>	Grievance Mechanism
<b>GPN</b>	Good Practice Note
<b>İLBANK</b>	Bank of Provinces
<b>IRAP</b>	the Provincial Disaster Risk Reduction Plan
<b>MEP</b>	Ministry of Environment, Urbanization, and Climate Change
<b>MTA</b>	Maden Tetkik ve Arama
<b>NECRRM</b>	Noise Evaluation and Control Regulation
<b>OHS</b>	Occupational Health and Safety
<b>OP</b>	Operation Policy
<b>PIU</b>	Project Implementation Unit
<b>PM</b>	Particulate Matter
<b>PYB</b>	Project Management Unit
<b>SCP</b>	Sustainable Cities Project
<b>SDG</b>	Sustainable Development Goals
<b>SEA</b>	Sexual Exploitation and Abuse
<b>SESA</b>	Strategic Environmental and Social Assessment
<b>SH</b>	Sexual Harassment
<b>SPP</b>	Solar Power Plant

<b>UN</b>	United Nations
<b>USBS</b>	National Water Information System
<b>WB</b>	World Bank

## Executive Summary

ILBANK (The Bank of Provinces in Türkiye) and the World Bank (WB) have collaboratively devised the Sustainable Cities Projects, which constitute a series of initiatives (SCP I and II are presently underway). This Environmental and Social Management Framework (ESMF) is specifically crafted for the Additional Financing (AF) of SCP II, intending to establish an augmented support mechanism. This Environmental and Social Management Plan (ESMP) will be prepared as defined in the Environmental and Social Management Framework (ESMF) (İLBANK, 2019). This augmentation is in response to the escalating demand from Municipalities seeking investments in sustainable urban development within the ongoing framework of the Sustainable Cities Program. The overarching goal of this program is to assist municipalities in enhancing urban planning, infrastructure development, capital investment planning, and fortifying municipal financial capacities, including creditworthiness.

All investments implemented through this project will strictly adhere to both the Environmental Regulations of the Republic of Türkiye and the Safeguard Policies of the World Bank. To ensure compliance, ILBANK will serve as the financial intermediary, overseeing the adherence to WB policies and procedures. Additionally, ILBANK will ensure that all requisite Turkish environmental approvals, licenses, and permits are obtained.

With financial support from the World Bank for renewable energy projects belong to municipalities, a solar power plant project located in Gümüşhacıköy, a district within Türkiye's Amasya province, has been initiated by Gümüşhacıköy Municipality. This project aims to increase the share of renewable energy sources in the country's energy mix and reduce greenhouse gas emissions and reliance on fossil fuels.

The installed capacity of the plant is 626,0 kWp which is exempted from EIA regulation and it is expected to generate 821,352,00 kWh of electricity annually. The project site is located on a Gümüşhacıköy/Artıkabat 361 Block 7,9 Lot and the land owned by Gümüşhacıköy Municipality. The solar panels used in the project are of high quality and have a lifespan of 30 years. The project was designed and constructed by a team of experienced engineers and technicians. The project developer has prepared and ensured the project in compliance with international quality and safety standards. The project has been financed by the World Bank through a loan agreement with Gümüşhacıköy Municipality. The loan has been provided on favorable terms, with a low-interest rate and a long repayment period. The loan has been used to finance the construction of the solar power plant, including the procurement of equipment and the construction of the power plant. The solar power plant project is expected to have a significant impact on the local economy and the environment. The project will create job opportunities during the construction phase and the operation phase. The project will also contribute to the development of the local infrastructure, including the construction of the substation and the transmission line. The project will also have a positive impact on the environment by reducing greenhouse gas emissions. The solar power plant will generate clean energy, which will replace the energy generated from fossil fuels. The project will also contribute to the country's efforts to address climate change. The solar power plant project in Amasya, Gümüşhacıköy is a significant step towards the development of renewable energy sources in Türkiye. The project in Gümüşhacıköy has the potential to serve as a model for similar projects in Türkiye.

The Environmental and Social Management Plan (ESMP) for this solar energy plant project plays a crucial role in the project's execution. The ESMP acts as a comprehensive guide to monitoring, assessing, and mitigating adverse environmental and social impacts throughout the project's lifecycle. This ensures that the project delivers a positive influence on the environment and the community.

The ESMP guarantees compliance with local legal regulations and international standards. It ensures that the project operates in accordance with legal requirements.

This project's provision of clean energy aligns with SDG 7, which targets Clean Energy. Additionally, it positively contributes to Good Jobs and Economic Growth (SDG 8). By reducing reliance on fossil fuels and limiting greenhouse gas emissions, this solar energy plant project supports Türkiye's efforts in combatting climate change. It aligns with Türkiye's climate action plans and commitments.

In conclusion, the ESMP for this solar energy plant project is a critical document, emphasizing the project's potential for both environmental and societal benefits. It ensures that the necessary steps are taken to monitor and mitigate environmental and social impacts with a focus on the project's unique aspects. Furthermore, it makes a valuable contribution to sustainable development goals and aligns with Türkiye's climate action plans.

## 1. Sub-Project Description

Within the scope of this report, the SPP sub-project details planned by Gümüşhacıköy Municipality was examined to prepare ESMP for the sub-project. Gümüşhacıköy district is located in the Amasya province.

This sub-project has been prepared for the establishment of an unlicensed solar power plant project with an installed power of 500,0 kWe belonging to Gümüşhacıköy district of Amasya province.

According to the connection power given in Table 1, Gümüşhacıköy Municipality will establish a solar power plant in Artıkabat Neighborhood, which is approximately 700 m away from Gümüşhacıköy District Central settlement and located to the north of the district center (Figure 1).

Figure 1: Location of Gümüşhacıköy District Center and SPP Subproject Area



This study is prepared within the scope of 30th clause and Article 1 of the "Regulation on Unlicensed Electricity Generation in the Electricity Market" the electricity consumption of the relevant institutions netting with the electricity generation of the power plants to be made over the electricity unit price determined according to the subscription type of the institutions in the Electricity Tariff published by EMRA.

Planned Solar Power Plant has **626,0 kWp DC Capacity, 500,0 kWe AC Capacity**. Equipped with 395 Wp MonoPerc Half-Cut modules with **30° tilt, 25° azimuth angle**.

When the economic life of the plant expires at 30 years, it will be decommissioned, and the cost is written into the cash flow as **decommissioning cost** which is **EU 2.000,00/MWp**. So, the overall power plant decommissioning cost will be, **EU 12.520,00**.

**Table 1: Planned SPP Technical Details**

Technical Information	
FV Panel Type	Monocrystalline MONOPERC
FV Panel Power Output	395 Wp
FV Panel Count	1584
Annual Degradation	%0,5
Inverter Power Output	100 kW
Inverter Count	5
Total DC Power	626,0 kWp
Total AC Power	500,0 kWe
Estimated Annual Energy Production	821.352,00 kWh
Annual Energy Consumption	821.352,00 kWh
Production/Consumption	%100
Decommissioning Cost	EU 12.520,00

### Project Land Use Rights

The project site sole owner is Gümüşhacıköy Municipality. The project area is located in Amasya Province, Gümüşhacıköy District, Artıkabat neighborhood, and the numbers are lot 7 and lot 9 of block 361. The total lot size is 12.089,63 square meters.

The transmission system is passing through the project site and getting connected to the transmission system within the water treatment facility. There is an 80-meter connection cable from rooftop SPP to the grid connection point. That is why no expropriation is required for the transmission system.

**Figure 2: Energy Transmission Line**



**Table 2: Planned SPP Land Information**

Land Information	
Type	Main Property
Province, District, County, Nbhd.	Amasya, Gümüşhacıköy, Artıkabat



Block, Lot	361/7-9
Total Area	12.089,63 m2
Right to Property Use	Municipality
EIA Status	There is no EIA process for rooftop solar systems.

## Land Acquisition Principles

OP 4.12 (İLBANK, 2019) covers only the direct impacts of land acquisition and restrictions of access to legally designated parks and protected areas. “Direct impact” means any consequence immediately related to the taking of a parcel of land or to restrictions in the use of legally designated parks or protected areas. People directly affected by land acquisition may lose their home, farmland, property, business, or other means of livelihood. In other words, they lose their ownership, occupancy, or use rights, because of land acquisition or restriction of access. The key factor is that the state has taken some or all of the land that people owned, used, or occupied; or, in legally designated parks and protected areas, the state has limited people’s use rights.

The simplest way to minimize resettlement is to design projects that minimize land acquisition, and the number of people affected by loss of land, by physical relocation, or by disruption of income-generating activities. All things being equal, facilities and transportation corridors, for example, are obviously better sited in or through areas with little or no population, to minimize the number of people affected. Of course, a host of economic, technical, and other factors must also be considered, so land acquisition and resettlement are often impossible to avoid altogether.

In this subproject, in line with the recommendations of the World Bank, an area that was unpopulated and owned by the municipality was selected. Therefore, there is no need for land acquisition and resettlement plans.

## 2. Environmental and Social Screening

The sub-project was prepared by adopting universal human rights and the accompanying concerns were resolved. Following loan approval, Gümüşhacıköy Municipality will initiate periodically monitored stakeholder participation processes and complaint procedures, taking into account this concern. The main purpose of the project is to meet the electricity needs of the district by utilizing clean energy, reduce input costs and provide economic contribution to various sectors.

There is no direct and negative impact on any social group from the project, which is located in a non-residential area. With the Solar Power Plant (SPP) project, the electrical energy need will be met within the framework of social justice, without creating an unfair and discriminatory impact on the disadvantaged groups in the environment. Using renewable energy for electricity generation ensures efficient use of municipal resources, positively impacts the entire regional population and promotes inclusion.

During the project preparation phase, no concerns were expressed by women's associations/organizations regarding gender equality. The project is not expected to have a negative impact on gender equality, no restrictions are foreseen on women's abilities and it is ensured that there is no discriminatory impact based on gender. Activities do not pose a risk of degradation or depletion of natural resources in communities dependent on these resources.

The project promotes sustainability by harnessing solar energy, reducing dependence on non-renewable fossil fuels and contributing to a more sustainable energy mix. Solar energy projects with lower environmental impact reduce air and water pollution, reduce carbon emissions and minimize

their ecological footprint. Energy resilience and flexibility contribute to reducing volatility in energy prices by providing a stable energy source and contributing to stability in urban and rural areas. Incorporating solar energy into the urban energy mix provides diversity, increases energy security and resilience.

Utilizing renewable solar energy, the project aims to increase economic sustainability by reducing the municipality's electricity expenses. Renewable energy investments strengthen communities, promote employment opportunities, skills development and income diversification. Training activities for stakeholders during the construction and operation phases contribute to long-term sustainability by raising awareness and encouraging environmentally friendly behavior.

The project strengthens accountability through transparent decision-making, active participation, accessible information, responsive complaint mechanisms, regular reporting and open communication. Stakeholders participate in decision-making processes, provide collective input, and regular participation strengthens the sense of ownership and accountability. . The project will establish a dedicated grievance mechanism (GM) which will be available through a toll-free hotline, email, and a GM within the municipality. This GM will be monitored regularly, and all grievances will be logged, reviewed, and addressed within a specified timeframe. A strong complaints mechanism addresses concerns and regular reporting and audits keep stakeholders informed. Also, public participation meetings will be held where local residents will be informed about the project and their opinions on the project will be gathered. The participation of the public will be ensured, and they will be informed about how to access grievance mechanisms in case of any issues. Measurable performance indicators increase transparency and accountability by allowing stakeholders to evaluate the project's success against criteria. Involving stakeholders in decision-making processes ensures inclusiveness and a sense of shared responsibility.

All details related to environmental and social screening are given in **Hata! Başvuru kaynağı bulunamadı..**

### 3. Legal Framework

#### National Legal Framework

The WB's environmental and social safeguards policies require that the borrower country is expected to prepare an Environmental and Social Management Framework (ESMF), integrated with the Regulation on Environmental Impact Assessment (henceforth "EIA Regulation") (Official Gazette No. 31907, July 29, 2022) (T.C. Cumhurbaşkanlığı Mevzuat Bilgi Sistemi, 2022) and WB's Operational Policies (İLBANK, 2019). Although the Turkish EIA Regulation does not entirely meet the requirements of international standards in terms of social impacts, there are some legal arrangements for managing several social impacts. In this respect, the following are identified to be a non-exhaustive list of social legal framework applicable for this project:

- Labor Law (No. 4857), published in the Official Gazette no. 25134 dated 10 June 2003
- Law on Occupational Health and Safety (No. 6331), published in the Official Gazette no. 28339 dated 30 June 2012
- Regulation on Contractors and Sub-contractors, published in the Official Gazette no. 27010 dated 27 September 2008

In terms of involuntary resettlement, the relevant legal arrangements of Türkiye are summarized below:

- Law No. 6203 Expropriation Law, published in the Official Gazette no. 18215 dated 8 November 1983

Potential impact of the project on known cultural values in Turkish laws, as listed below:

- Law No. 2863 dated 21.07.1983 on the Protection of Cultural and Natural Assets (revised through the amendment issued on 27.07.2004 dated Official Gazette)
- The Regulation on Researches, Drillings and Excavations in Relation to the Cultural and Natural Assets, which was published in the Official Gazette No. 18485 dated 10.08.1994

Labor and Working Conditions:

- Human Resource Policy (dated January 4, 2013 in the Official Gazette numbered 28518) published by ILBANK
- Eligibility Criteria: The Law on Regulating Public Finance and Debt Management (Law No. 4749) restricts borrowing by any institution/municipality if it has overdue payments to Treasury.

In terms of stakeholder analysis:

- The Law on the Right to Information, Law no. 4982 dated November 25, 2014)
- The Law on the use of the Right to Petition, Law no. 3071 dated November 1, 1984
- The Law on the Protection of Personal, Law no. 6698 dated 24 March, 2016

Moreover, the project is the subject of the 30th clause of the "Regulation on Unlicensed Electricity Generation in the Electricity Market", published by the Energy Market Regulatory Authority no. 30772 on May 12, 2019 and amendment published on Official Gazette No: 31479 dated May 09, 2021, updated on Official Gazette No: 31920 dated August 11, 2022, final update on Official Gazette No: 32120 dated March 02, 2023. Article 1st Paragraph: " In order to meet the electricity needs of the consumption facilities, not exceeding the contractual power of the relevant consumption facilities in the connection agreement; Within the scope of subparagraph (h) of the first paragraph of Article 5, a production facility based on renewable energy sources may be established. Within the scope of this article, a production facility based on renewable energy sources may be established by public institutions and organizations within the scope of subparagraph (c) of the first paragraph of Article 5." Section 26 of the same regulation. In paragraph 30-(3) under the heading "Applications for consumption needs", referring to the article, it reads: "In the production facilities established within the scope of this article, transactions are established within the scope of the fourth paragraph of Article 26 for surplus energy supplied to the grid during each billing period.

It is possible to explain offsetting as comparing the energy consumed monthly and the energy produced by the power plant and if there is excess production, selling this excess energy to the grid. The energy supplied to the network is sold at the unit price at which the subscriber receives the electricity, without considering the distribution price, also this sale is subject to tax.

Since the power plant to be established meets a small part of the municipality's consumption, no sales will take place. The municipality will continue to invest in this regard."

According to the regulation that entered into force on 11.08.2022, if the new power plants to be established in 2019 and after having made additional production at a value above the total amount of energy they consumed last year, this additional production will be given to the grid, free of charge. For example, if the consumer consumed 1 MWh of electricity last year and the solar power plant generates more than 1 MWh of excess energy (which means the energy after the consumption of consumer), up to 1 MWh the energy can be sold to the grid and if the produced energy exceeds 2 MWh (1 MWh for consumption and 1 MWh for sale), excess energy will be given to the grid free of charge.

Indirect and direct government incentives for solar power plants include:

- Article 24 of the Regulation on Unlicensed Electricity Generation in the Electricity Market (official newspaper no. 30772 dated May 12, 2019). It is stated that the surplus productions of Solar Power Plant will be purchased for 10 years at the price determined by the supply company by applying within the scope of 5c of the same regulation with the regulation in the article. The regulation's linking this purchase to a certain period is also considered an indirect incentive of the state.
- In addition, the fact that SPP applications based on self-consumption can be obtained in the same regulation is considered as an indirect incentive.

Laws, decrees and related legislations on which SPP installation and the feasibility are based;

- Law:
  - Electricity Market, Law no. 6446 dated 14 March, 2013
  - Environmental Law, Law No: 2872; Date of Ratification: 1983
- Decree:
  - President's Decision, Number of Decision 1044 (10.05.2019/30770)
- Regulation:
  - Regulation on Unlicensed Electricity Generation in the Electricity Market dated 12/5/2019 and numbered 30772 amendment published on Official Gazette No: 31479 dated May 09, 2021, updated on Official Gazette No: 31920 dated August 11,2022, final update on Official Gazette No: 32120 dated March 02,2023

### International Legal Framework

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents of World Bank. When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. These General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which provide guidance to users on EHS issues in specific industry sectors. The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. It is mandatory to comply with the EHS Guidelines in the ESMP prepared for this subproject, which is planned to be realized with World Bank financing. Besides, other mandatory international legal framework listed as:

- Operational Policies of World Bank (OP 4.01)
- 2010 Policy on Access to Information (for stakeholder analysis)
- Good Practice Note (GPN) on Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) (for stakeholder analysis)
- European Union Environment Policy
- ILO conventions

## 4. Baseline Data

### Environmental Baseline

#### Location and Topography

Amasya province is located in the Central Black Sea Section of the Black Sea Region, approximately between 34° 57' - 36° 31' eastern longitudes and 41° 04' - 40° 16' northern latitudes. The province has an area of approximately 5.701 km<sup>2</sup> and borders the provinces of Samsun to the north, Çorum to the west, Yozgat to the south, and Tokat to the southeast. Amasya province is located in a narrow valley separated by the Yeşilirmak River and surrounded by mountains on both sides, and has a rugged terrain.

Gümüşhacıköy district is located in the northwest part of the Amasya province, and it is approximately 68 km away from Amasya province. Gümüşhacıköy district is connected to Merzifon in the east by 20 km, in the west by 40 km to Osmançık district of Çorum province, and in the south by Hamamözü district (25 km) to Çorum province by a 60 km state highway. The district, which ranks fifth in terms of size in the province with a surface area of 654 km<sup>2</sup>, has an altitude of 815 m. Geographically, Gümüşhacıköy district is located at the foothills of Tavşan and İnegöl Mountains, at the intersection of 40-41 northern parallels and 35-36 eastern meridians.

Figure 3: Geographical location of Amasya Province and Sub-Project Area



Figure 4: Gümüşhacıköy District Topography Map



## Geography

Gümüşhacıköy district was established in a mountainous area in the northwest of the province. The district is surrounded by İnegöl Mountain from the west, Eğirli Mountain from the southwest, and Tavşan Mountain from the northeast. The highest point of the district is İnegöl Hill with an altitude of 1864 meters. The south and southeast of the district is covered by the Gümüş Plain, located between the Tavşan and İnegöl Mountains. This plain starts near Gümüş and extends towards the east, merging with the Merzifon Plain. Merzifon plain, located in the middle of the ring formed by the high area consisting of Tavşan Mountain, İnegöl Mountain, İleridağ, Çakırdağı and Akdağ, is the 3rd largest plain of the province with an area of 312 km<sup>2</sup>. It covers 5.6% of the province's surface area. Gümüş plain is the fourth important plain of the province with an area of 54 km<sup>2</sup>. With their size, they form one of the largest basins of Northern Anatolia (AFAD, 2021). Gümüşhacıköy district center elevation level is between 750-1000 meters.

Figure 5: Elevation Map of Amasya Province and SPP Sub-project Area



## Climate

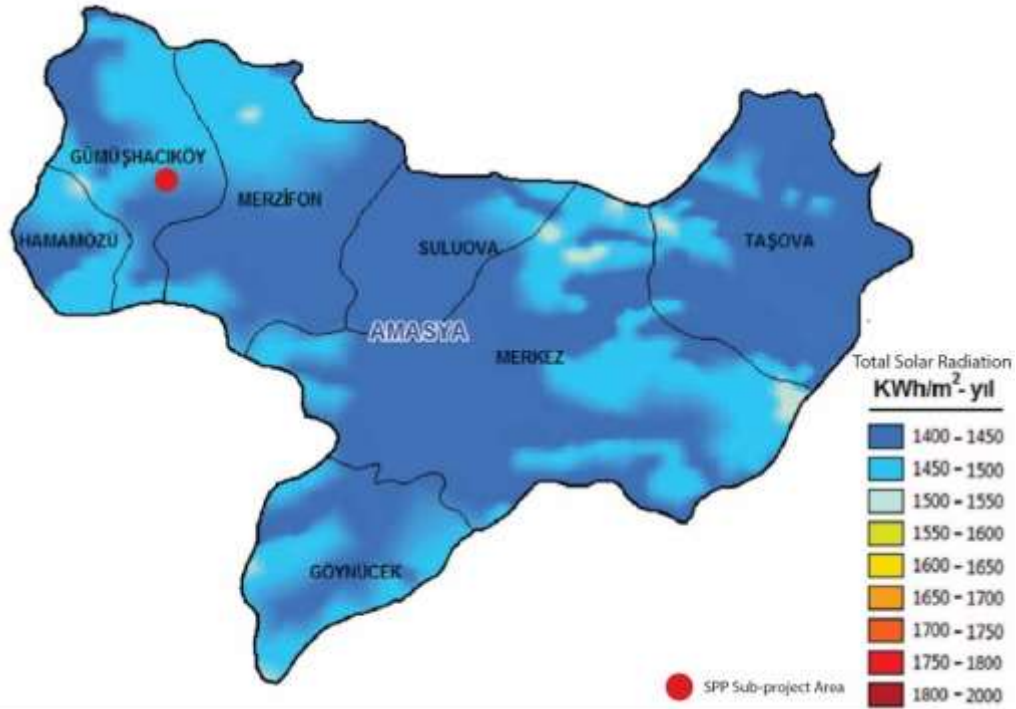
Due to its geographical location, Amasya province has a transitional climate between the Black Sea climate in the north and the continental climate in the south. Akdağ, Canik and Kara Ömer Mountains, which run parallel to the Black Sea coastline, prevent the Black Sea climate from being seen in the interior. For this reason, summers are as dry as the continental climate and as rainy as the Black Sea climate; winters are as mild as the Black Sea climate and not as harsh as the continental climate. Summers are hot and dry, winters are rainy. April and May in the spring season and December in the winter season are the months with the highest rainfall in the province; July and August are the driest months in summer. The average temperature is 2.6 °C in January and 23.8 °C in July and August.

The transition climate prevails in Gümüşhacıköy district, which reflects the general climate characteristics of Amasya province. In the district, summers are hot and dry, winters are mild and rainy. July and August are the driest months of the summer, and it receives more precipitation in spring and fall. The district is under the influence of the air flow coming from the Balkans in spring, summer and winter seasons. Due to this air flow, which is cool and gains moisture from the Black Sea, there is a significant continuity in precipitation. In the fall, the air mass coming from the Aegean and Marmara regions and moving towards the Black Sea causes short showers (Özdemir, 2023).

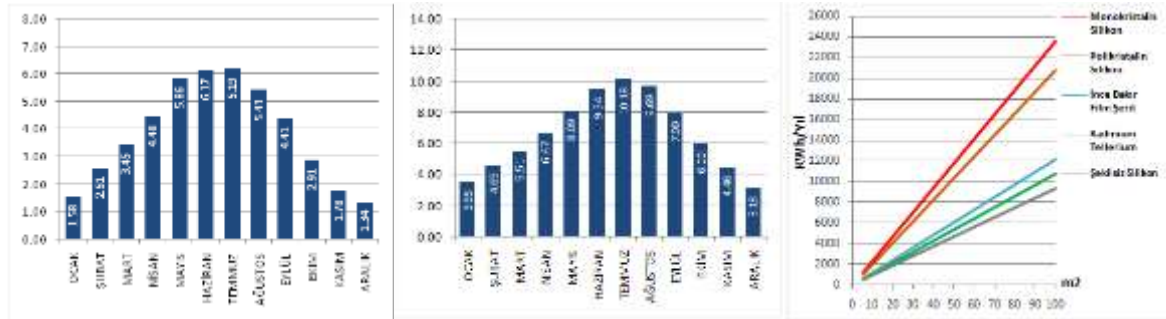
According to the Solar Energy Potential Atlas, Türkiye's average annual total sunshine duration is 2,737 hours, daily total is 7.5 hours, and annual total incoming solar energy is 1,527 kWh/m<sup>2</sup>/year. It is seen that Gümüşhacıköy's average solar radiation throughout the year is in the range of 1400- 1500 kWh/m<sup>2</sup>/year (Figure 6). Global radiation values are over 6.00 kWh/m<sup>2</sup>/day in June, July, and over 5.00 kWh/m<sup>2</sup>/day in a total of 4 months from May to the end of August (Graphic 1).

In Gümüşhacıköy, the month with the longest sunshine duration (10.18 hours) is June, and the shortest sunshine duration (3.18 hours) is December. Generally, the duration of sunshine is above 7 hours in five months (from May to September) throughout the year in most seasons.

Figure 6: Amasya Province Solar Atlas and Project Area



Graphic 1: a) Gümüşhacıköy District Radiation Values b) Gümüşhacıköy District sunshine Times c) Gümüşhacıköy PV type-Area-Energy That Can Be Produced

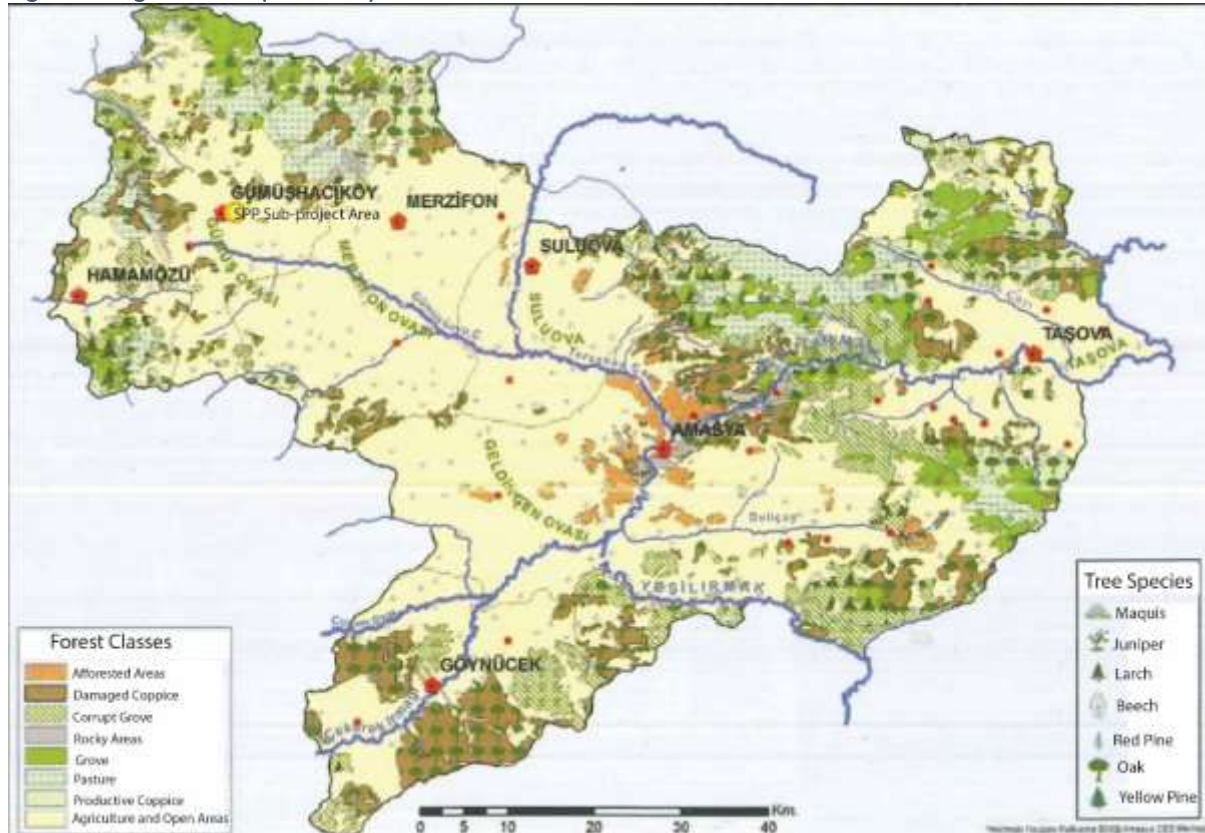


## Flora

The province has both continental and Black Sea climate characteristics. There are various plant species that can also grow in the climate. Depending on the two climatic characteristics, vegetation cover is composed of forested areas in the northern regions of the province and large steppes in the south. The distribution of forests in Amasya province is seen in the upper parts of Akdağ and Yeşilirmak Valley in the central district, Canik Mountains in Taşova, Tavşan Mountain in Merzifon, İnegöl and Eđerli Mountain in Gümüşhacıköy, Karadağ and Buzluk Mountain in Göynücek. The dominant vegetation in these areas consists of red pine, juniper, oak, hornbeam, poplar at low altitudes of 1000-1850 meters, and yellow pine, larch and beech at higher altitudes. The maquis vegetation is mostly spread in the Yeşilirmak valley and in the 400-800 meters of the valley. Another vegetation cover formed by the degradation of forests is steppes and is generally common between 300-850 meters.



Figure 7: Vegetation Map of Amasya Province



### Earthquake Risks

Amasya is located in the region where the North Anatolian Fault, Esençay-Merzifon Fault, Ezinepazarı-Sungurlu Fault, Turhal Fault, Almus Fault and Çorum-Salhançayı Faults, which are known to produce earthquakes that have caused significant loss of life and property in the historical period and in the last century. It is known that there were destructive earthquakes in Amasya in historical and instrumental periods resulting in loss of life and property due to these faults. The most important of these are the 1939 Erzincan, 1942 Niksar-Erbaa, 1943 Ladik-Tosya earthquakes (AFAD, 2021). The SPP Sub-project area is located between Merzifon Fault and North Anatolian Fault, there is no active fault line in the district center. The last earthquake that occurred in the district was on May 8, 2023, with a magnitude of 3.8. The epicenter of the earthquake, which did not cause any loss of life or property, was Doluca village in Gümüşhacıköy district (Chamber of Geological Engineers, 2023).

According to the Türkiye Earthquake Hazard Map, Gümüşhacıköy District is located between 0.4-0.5 in terms of seismicity. When the sub-project area is examined based on the "Türkiye Earthquake Hazard Map" that came into effect with the Cabinet's decision dated 22.01.2018 and numbered 2018/11275, it is observed that the largest ground acceleration value is approximately around 0.447 PG (Figure 9).

Figure 8: Faults in Gümüşhacıköy and its Region, General Directorate of Mineral Research and Exploration (MTA)

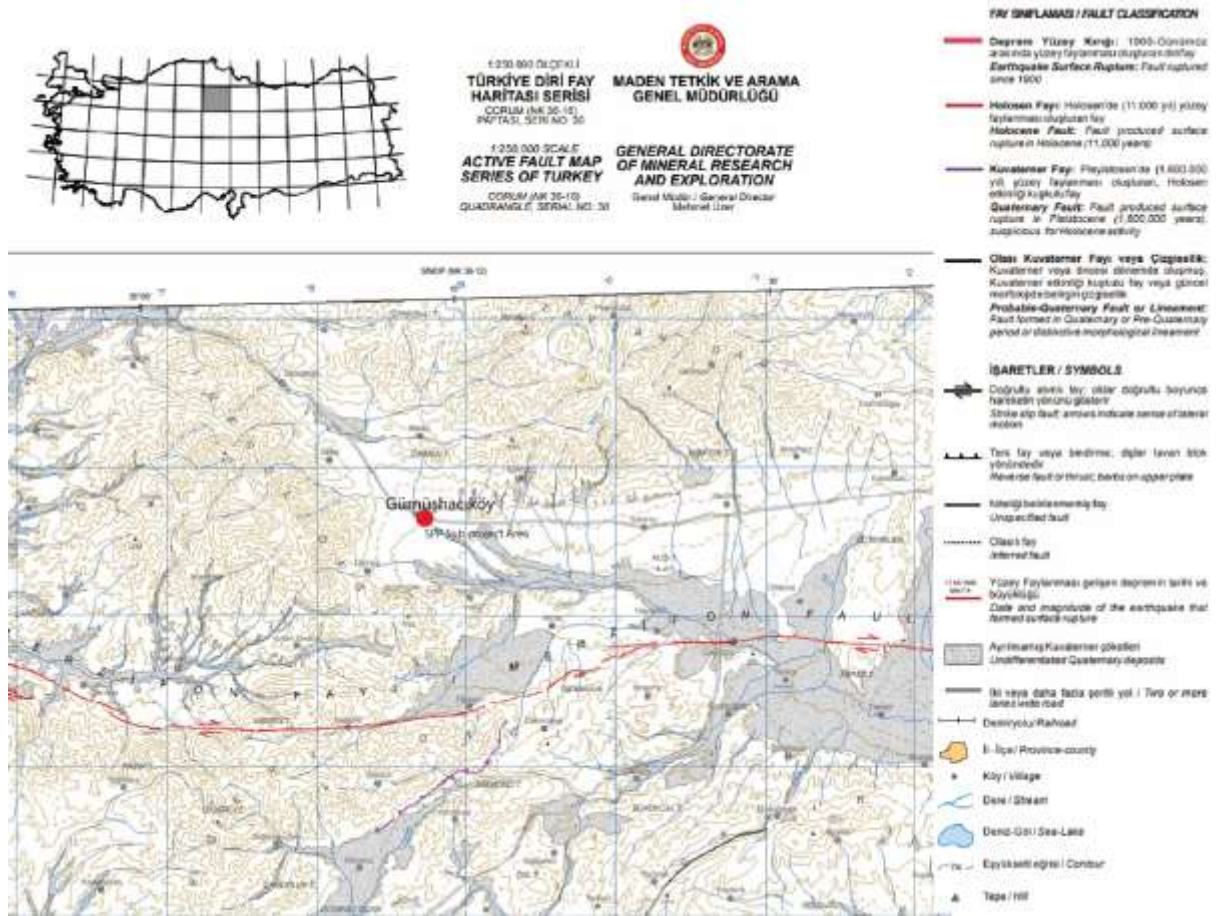
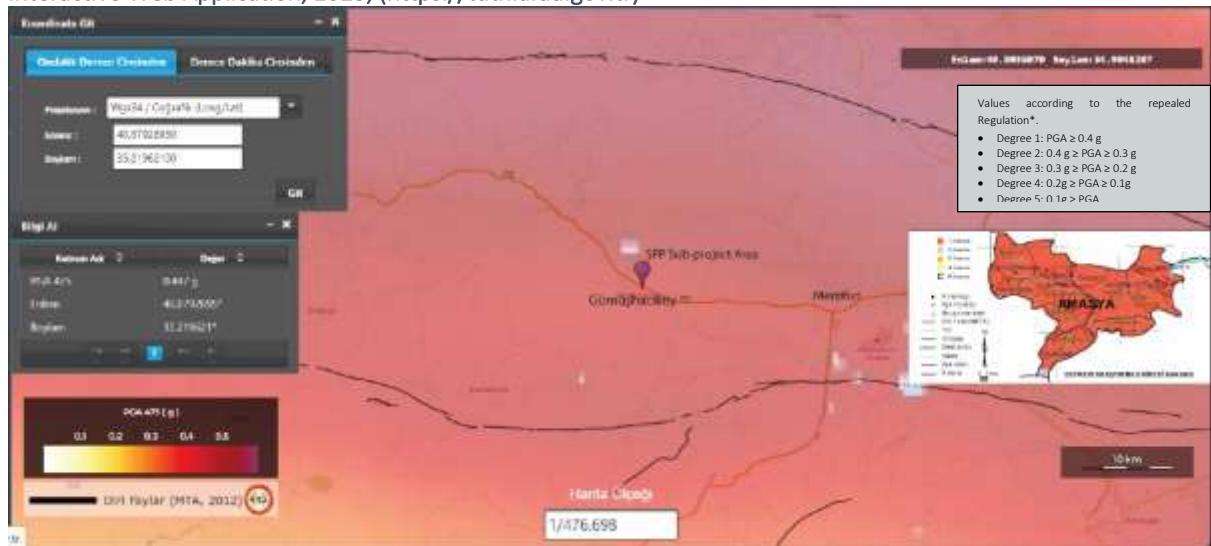


Figure 9: Earthquake Hazard Map of Sub-Project Area and Surroundings, Türkiye Earthquake Hazard Maps Interactive Web Application, 2023, (<https://tdth.afad.gov.tr>)<sup>1</sup>



\*Türkiye Earthquake Zones Map, which came into force with the decision of the Council of Ministers dated 18.4.1996 and numbered 96/8109, was abolished on 01.01.2019. The New Türkiye Earthquake Hazard Map and Building Earthquake Regulation was published in the Official Gazette No. 30364 on 18 March 2018 and entered into force on 01.01.2019.

## Hydrology and Flood Risks

The most important rivers of Amasya are Yeşilırmak, Tersakan Stream and Çekerek River. The borders of Amasya are mostly located in the Yeşilırmak basin formed by the Yeşilırmak River, and a part of

<sup>1</sup> Hazard map showing the PGA value created for a 10% probability of exceedance in 50 years (475 years of recurrence)

Gümüşhacıköy district is located in the Kızılırmak Basin. Yeşilırmak, the longest river of the province, enters the borders of Amasya from the south, merges with Çekerek Stream and divides the province into two in the east-west direction. Yeşilırmak, which merges with Tersakan Stream in the provincial center, flows into the Black Sea from the Çarşamba Plain. Apart from these rivers, Deliçay, Destek Stream, Gümüşsuyu Stream, Salhan Stream, Büyükçay, Çorum Stream and Hamamözü Stream are other important rivers in the province. Gümüşsuyu Stream, İmirler Stream, Kuru Stream, Kabadere are the important rivers of the district. Among these rivers, Gümüşsuyu, İmirler Stream and Kabadere originate from İnegöl Mountain and Kuru Çay originates from Tavşan Mountain. Gümüşsuyu, which is the most important tributary of Tersakan Stream, feeds Gümüş Plain and Merzifon Plain in the east and merges with Tersakan Stream. İmirler Stream passing through Gümüşhacıköy district center merges with Kuru Stream and extends towards Gümüş Plain. Kabadere, which passes through Gümüş, flows eastward and merges into Tersakan Stream, a branch of Yeşilırmak (Özdemir, 2023).

The annual precipitation in Gümüşhacıköy district is 458,3 mm, with 61 mm most precipitation occurring in May and with 14 mm the least precipitation in August.

Gümüşhacıköy district is rich in terms of groundwater resources. According to the National Water Information System, Gümüşhacıköy district is not located in the flood risk area (Figure 10).

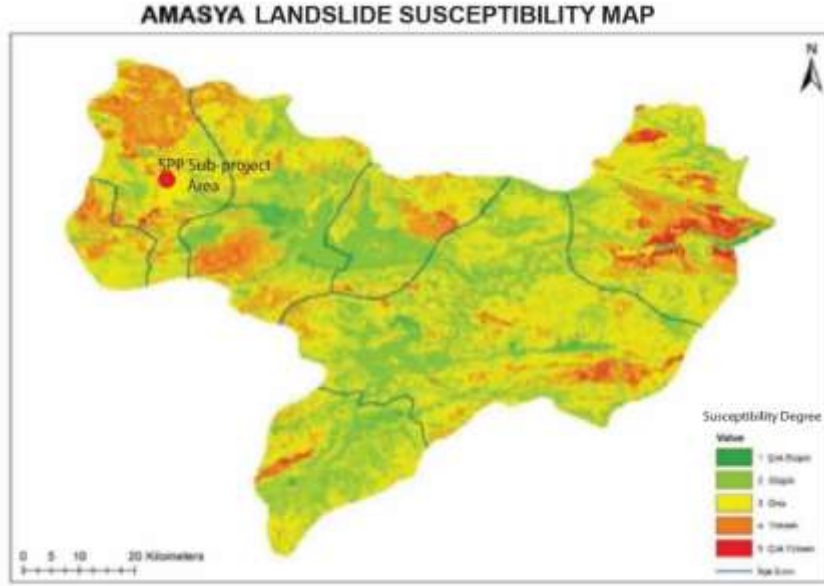
Figure 10: National Water Information System (USBS) Flood Risk Analysis and Sensitive Areas and Water Assets (Groundwater etc.) around Subproject Area



### Landslide Risk

In terms of mass movements, landslides are the most common type of mass movement in the province. Landslides are experienced more intensely in Taşova district and its immediate surroundings in the east of Amasya and in Amasya Central district and its immediate surroundings compared to other parts of the province. Rockfall events are more common in the central district of Amasya. Gümüşhacıköy district is at low risk and moderate risk in terms of landslide susceptibility. While the district center remains at low risk, it is seen that the risk increases due to the increase in altitude in the northern part of the district (Figure 11).

Figure 11: Amasya Province Landslide Susceptibility Map



## Social Baseline

### Demography

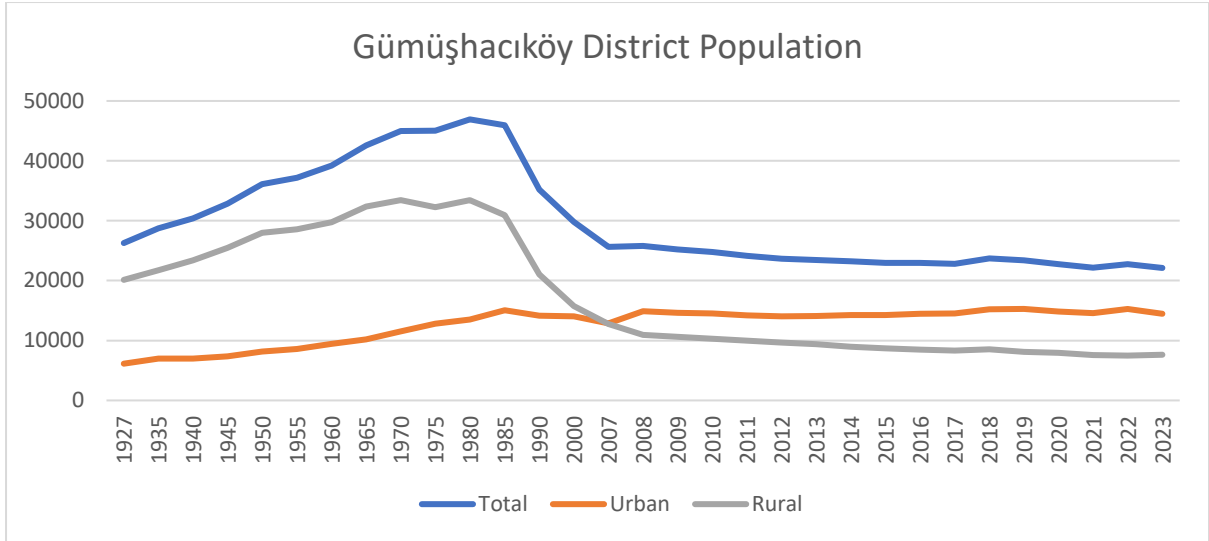
Amasya province has 7 districts, 8 municipalities, 107 neighborhoods and 372 villages. While 75.17% of the provincial population lives in urban areas, 24.83% lives in rural areas. The order of size of the districts in terms of population is Central District, Merzifon, Suluova, Taşova, Gümüşhacıköy, Göynücek and Hamamözü.

According to the 2023 census, the population of the district center is 14.472, and the village population is 7649. The total population is 22.121. There are 12 neighborhoods connected to the district. It is seen that the rural population of Gümüşhacıköy district has decreased over the years, especially after 1985 and the rural-urban population has approximated each other since 2007.

Table 3: Gümüşhacıköy Population by Years (TÜİK, 2024)

Year	Urban	Rural	Total	Year	Urban	Rural	Total
1927	6139	20125	26264	2009	14620	10615	25235
1935	6984	21751	28735	2010	14525	10281	24806
1940	6999	23419	30418	2011	14176	9973	24149
1945	7383	25458	32841	2012	14028	9645	23673
1950	8141	27967	36108	2013	14096	9367	23463
1955	8602	28563	37165	2014	14263	8991	23254
1960	9463	29767	39230	2015	14267	8676	22943
1965	10199	32365	42564	2016	14450	8491	22941
1970	11513	33443	44956	2017	14511	8301	22812
1975	12789	32272	45061	2018	15191	8543	23734
1980	13492	33432	46924	2019	15281	8121	23402
1985	15048	30910	45958	2020	14819	7945	22764
1990	14170	21055	35225	2021	14582	7597	22179
2000	14057	15738	29795	2022	15261	7485	22746
2007	12847	12785	25632	2023	14472	7649	22121
2008	14873	10950	25823				

Graphic 2: Gümüşhacıköy District Population by Years (TÜİK, 2024)



### Cultural Heritage

Gümüşhacıköy district and its surroundings have been home to important settlements throughout history due to its geographical location between Central Anatolia and the Black Sea region. Gümüşhacıköy district center and Gümüş settlement have many architectural works such as mosques, churches, baths, inns, madrasahs, bridges, fountains, mansions and residences bearing the traces of different civilizations from ancient times to the Ottoman period. In the district where Turks, Armenians and Greeks lived together until the 1920s, some buildings have completely disappeared today as a result of the continuous decrease in the population in the settlement, while some of them continue to exist physically (**Özdemir, 2023**). There are important cultural inventories in the district, but there is no any cultural assets in the SPP sub-project area (Figure 12).

Figure 12: Cultural Assets in Gümüşhacıköy District Center and SPP Sub-project Area (Culture Inventory, 2019)



## Economic Sectors and Facilities

The economic structure of Amasya is based on agriculture, animal husbandry, tourism and industry. Due to the climate, land structure and soil diversity of the province, agriculture ranks first in the economy of Amasya. The economy of the district today is largely based on agriculture and animal husbandry. The main agricultural products grown in the district are wheat, sugar beet, barley, corn, sunflower, oats, lentils, poppy, hemp and tobacco. Apart from these, products such as apples, cherries, potatoes, onions and fodder crops also play an important role in the economy. The tobacco grown in the district, called "Gümüşhacıköy basması", is unique to the region due to its high aroma and smell. In the district, which has suitable surface shapes for animal husbandry, cattle and sheep breeding is another important source for economic life. In the district where sheep, goat and cattle breeding are developed, poultry farming and beekeeping are also common. Chickpea has been a source of livelihood in the district that has maintained its importance from past to present. Today, traditional chickpea making is still carried on in the shops in the Ekin Bazaar, the historical trade center.

## 5. Environmental and Social Management Plan

Mitigation Plan for the Land Preparation, Construction and Operation Phases of the Project

Table 4: Mitigation Plan for the Land Preparation, Construction Phases of the Project

Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
Constructional Phase I = 2 L = 2	Risk 1: Noise Resulting from Temporary Traffic Load Noise Caused by Construction Vehicles and Equipment · Vibration Effects	<ul style="list-style-type: none"> <li>· Implement traffic management plans to reduce congestion and optimize routes;</li> <li>· Schedule noisy construction activities during the daytime; Equip vehicles and machinery with noise-reduction technologies.</li> <li>· Set vibration limits for construction activities.</li> <li>· Notify and compensate affected property owners for any damage</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Traffic Grievance Records Visual observations (such as traffic signs and warnings are placed at appropriate locations) ESMR Findings	Included in the subproject budget
Constructional Phase I = 2 L = 2	Risk 2: Dust and Exhaust Emissions Soil Excavation, Vehicle Traffic and Equipment	<ul style="list-style-type: none"> <li>· Implement dust control measures, such as watering construction areas.</li> <li>· Use dust screens or barriers to prevent dust dispersion.</li> <li>· Promote the use of eco-friendly construction equipment.</li> <li>· Pave or stabilize dirt roads to reduce dust emissions.</li> <li>· Enforce speed limits to minimize dust generation.</li> <li>· Maintain vehicles to reduce emissions.</li> <li>· Use low-emission or electric vehicles whenever possible.</li> <li>· Encourage the adoption of clean fuel options.</li> <li>· Develop an emissions control and reporting program.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Traffic Grievance Records Visual observations (such as traffic signs and warnings are placed at appropriate locations) ESMR Findings	Included in the subproject budget
Constructional Phase I = 2 L = 2	Risk 3: Temporary Blockage of Transportation Roads between Settlements Traffic Vehicles Cause Destruction on Roads and Buildings	<ul style="list-style-type: none"> <li>· Plan construction schedules to minimize road closures.</li> <li>· Provide alternative routes for affected communities.</li> <li>· Communicate road closures in advance to residents.</li> <li>· Employ regular road maintenance and repair.</li> <li>· Ensure construction vehicle operators follow road safety guidelines.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Traffic Grievance Records Visual observations (such as traffic signs and warnings are placed at	Included in the subproject budget

Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
				appropriate locations) ESMR Findings	
Constructional Phase I = 1 L = 1	Risk 4: · Chemical Spills and Leaks · Improper Storage and Disposal of Materials · Inadequate Stormwater Management · Inadequate Hazardous Material Handling	· Establish safe delivery/storage/handling procedures in accordance with material safety data sheets (MSDSs) · Immediately contain and clean-up any spilled material.	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Visual observations ESMR Findings	Included in the subproject budget
Construction Phase I = 4 L=1	· Risk 5: Earthquake Risk	· Parameters suitable for 1st degree earthquake zones should be taken into consideration in construction. · During construction, current earthquake safety standards and regulations must be followed. · The design of the solar power plant should be made considering the earthquake resistance in accordance with the earthquake risk of the region.	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Visual observations Records	Included in the subproject budget
Construction Phase I = 2 L=1	· Risk 6: Possibility of floods due to excessive rainfall	· Regularly inspect and maintain roof drainage systems to ensure they are clear and functioning properly. · Store construction materials and equipment in elevated or protected areas to prevent water damage.	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Visual observations ESMR Findings	Included in the subproject budget
Construction Phase I = 1 L=1	· Risk 7: Landslide Risk	· Implement basic erosion control measures if minor soil movement is detected (e.g., temporary barriers).	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Visual observations ESMR Findings	Included in the subproject budget
Constructional Phase I = 4 L=1	· Risk 9: Effects on Workforce and OHS	· Shaping early detection mechanisms based on results of monitoring measures, · Legal and regular training, · Utilization of occupational health and safety equipment,	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Sub-contractor Agreements Grievance Records ESMR Findings	Included in the subproject budget



Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
		<ul style="list-style-type: none"> <li>· Regular worker health checks,</li> <li>· OHS Site management Plan,</li> <li>· Risk Assessment,</li> <li>· Emergency Plan</li> <li>· Control of working hours and work permits,</li> <li>· Regular safety inspections.</li> </ul>	Supervision Consultant		
Constructional Phase I = 2 L = 2	· Risk 10: Community health and safety during the execution of works	<ul style="list-style-type: none"> <li>· Ensure that construction work is performed when the facility is not in use, or outside of regular working hours.</li> <li>· Fence the approach areas and storage areas to prevent unauthorized access.</li> <li>· Provide clear signage to warn the public of construction activities.</li> <li>· Implement dust control measures to minimize air quality impact.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Visual observations ESMR Findings	Included in the subproject budget

Table 5 : Mitigation Plan for the Operational Phase of the Project

Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
Operational Phase I = 0 L = 0	· Risk 2: Dust and Exhaust Emissions Equipment	<ul style="list-style-type: none"> <li>· Vehicles and equipment used during the operation phase will undergo regular maintenance, with maintenance records being kept.</li> <li>· Whenever possible, electric-powered vehicles and equipment will be used instead of those powered by fossil fuels</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Traffic Grievance Records Visual observations (such as traffic signs and warnings are placed at appropriate locations) ESMR Findings	Included in the subproject budget
Operational Phase I = 0	Risk 4:	· Wastes generated should only be temporarily stored on site in the temporary storage area that is maintained/equipped with	Gümüşhacıköy Municipality/PIU	Visual observations	Included in the subproject budget

Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
L=0	<ul style="list-style-type: none"> <li>Chemical Spills and Leaks</li> <li>Improper Storage and Disposal of Materials</li> <li>Inadequate handling of waste PV modules</li> </ul>	<p>appropriate precautions according to the type of wastes, when needed, and wastes should be transported to licensed disposal facilities with licensed transport vehicles appropriate to the type of waste. Information related to the operations in this context should be recorded and records should be kept.</p> <ul style="list-style-type: none"> <li>Develop Disposal of Waste PV Modules Management Plan</li> <li>Develop Recycling of Project Equipment/Materials Management Plan</li> </ul>	Contractor and/or subcontractor Supervision Consultant	ESMR Findings	
Operational Phase I=1 L=3	· Risk 5: Earthquake Risk	<ul style="list-style-type: none"> <li>Backup plans should be created for the devices and systems used in the solar power plant.</li> <li>Power supplies must be provided for emergencies.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Visual observations Records	Included in the subproject budget
Operational Phase I=1 L=1	· Risk 6: Possibility of floods due to excessive rainfall	<ul style="list-style-type: none"> <li>Conduct regular visual inspections of roof drainage systems to ensure they remain clear and fully operational.</li> <li>Ensure that the roof surface is free from debris and obstructions that could block drainage.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Visual observations ESMR Findings	Included in the subproject budget
Operational Phase I = 1 L=1	· Risk 7: Landslide Risk	<ul style="list-style-type: none"> <li>Conduct periodic visual inspections around the building's perimeter to detect any signs of soil movement or erosion.</li> <li>Maintain any existing retaining walls or erosion control measures, repairing them as needed.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Visual observations ESMR Findings	Included in the subproject budget
Operational Phase I=3 L=3	· Risk 8: Reflection and Glare Effect	<ul style="list-style-type: none"> <li>Develop a detailed procedure for monitoring glare and reflection, including responsibilities, schedules, and data collection methods and regularly report the findings and progress of glare and reflection control measures.</li> <li>Design of project area according to flight routes.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Visual observations ESMR Findings	Included in the subproject budget
Operational Phase I = 3 L=1	· Risk 9: Effects on Workforce and OHS	<ul style="list-style-type: none"> <li>For sub-projects that may have labor influx issues, camp sites should be arranged to properly accommodate workers and meet their needs within the camp site. Workers must be provided with relevant trainings as needed. Workers will sign and receive a</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor	Sub-contractor Agreements Grievance Records ESMR Findings	Included in the subproject budget

Phase Impact and Likelihood (1-5)	Risk Description	Mitigation Measures	Responsibility	Key Performance Indicators	Cost
		<ul style="list-style-type: none"> <li>training on the Code of Conduct. Nearby communities will be consulted regarding the locations of the work camp.</li> <li>Develop Labor Management Plan</li> </ul>	Supervision Consultant		
Operational Phase I = 2 L=2	· Risk 11: Storage of Damaged or End of Lifecycle Panels	<ul style="list-style-type: none"> <li>Develop a procedure for temporary storage of damaged or end-of-lifecycle panels on site in secured areas. - Ensure proper delivery to specified recycling areas.</li> <li>Panels, switches, solar regulators, inverters, etc that break down and become idle during or after the activity in question. The materials will be temporarily stored in the Hazardous Waste Storage Area in the existing facility, classified according to their properties and delivered to licensed recycling companies for recycling. Wastes that cannot be recycled will be given to licensed companies to be disposed of in accordance with the conditions specified in the "Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314.</li> </ul>	Gümüşhacıköy Municipality/PIU Contractor and/or subcontractor Supervision Consultant	Sub-contractor Agreements Grievance Records ESMR Findings	Included in the subproject budget

## Monitoring Plan for the Land Preparation, Construction and Operation Phases of the Project

**Table 6: Monitoring Plan for the Land Preparation, Construction Phases of the Project**

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
Constructional Phase I = 2 L = 2	Risk 1: Noise Resulting from Temporary Traffic Load Noise Caused by Construction Vehicles and Equipment	<ul style="list-style-type: none"> <li>· Conduct periodic sound level measurements at key locations in areas with traffic during construction.</li> <li>· Regularly measure noise levels during equipment operation in areas with equipment activities.</li> </ul>	<ul style="list-style-type: none"> <li>· Noise levels generated by traffic.</li> <li>· Vibration levels and noise from blasting</li> <li>· Structural and superficial damage from vibrations</li> </ul>	<ul style="list-style-type: none"> <li>· Sound level measurement</li> <li>· Visual inspections and structural assessments.</li> </ul>	<ul style="list-style-type: none"> <li>· Areas with traffic during construction</li> <li>· Areas with equipment operation.</li> <li>· Buildings near construction areas.</li> </ul>	<ul style="list-style-type: none"> <li>· Periodic measurements during construction.</li> <li>· Regular structural assessments during construction.</li> </ul>	<ul style="list-style-type: none"> <li>· Noise levels exceeding acceptable limits.</li> <li>· Vibration and noise exceeding allowable levels.</li> <li>· Signs of structural or superficial damage.</li> </ul>
Constructional Phase I = 2 L = 2	Risk 2: Dust and Exhaust Emissions, Vehicle Traffic and Equipment	<ul style="list-style-type: none"> <li>· Continuous measurement of dust concentration and particulate matter (PM) emissions using air quality monitoring equipment in construction areas</li> <li>· Periodic air quality measurements along traffic routes in traffic-prone areas within the site.</li> <li>· Periodic emission measurements from the exhaust systems of vehicles and construction equipment in vehicle operation areas.</li> </ul>	<ul style="list-style-type: none"> <li>· Dust concentration and particulate matter (PM) emissions.</li> <li>· Emissions from vehicles and construction equipment.</li> </ul>	<ul style="list-style-type: none"> <li>· Dust concentration measurements using air quality monitoring equipment.</li> <li>· Air quality measurements along traffic routes.</li> <li>· Emission measurements from the exhaust systems</li> </ul>	<ul style="list-style-type: none"> <li>· Traffic-prone areas within the site</li> <li>· Vehicle operation areas</li> </ul>	<ul style="list-style-type: none"> <li>· Periodic measurements during project activities</li> <li>· Periodic emissions testing during construction and operation</li> </ul>	<ul style="list-style-type: none"> <li>· Dust levels exceeding acceptable thresholds.</li> <li>· Emissions exceeding permissible levels</li> </ul>
Constructional Phase I = 2 L = 2	Risk 3: Temporary Blockage of Transportation Roads between Settlements	<ul style="list-style-type: none"> <li>· Analyzing road blockages, duration, and frequency through real-time assessments of transportation routes.</li> </ul>	<ul style="list-style-type: none"> <li>· Road blockages, duration, and frequency.</li> <li>· Damage to roads and buildings</li> </ul>	<ul style="list-style-type: none"> <li>· Record road closure incidents and duration.</li> </ul>	<ul style="list-style-type: none"> <li>· Vehicle operation areas.</li> <li>· Transportation routes.</li> </ul>	<ul style="list-style-type: none"> <li>· Periodic emissions testing during construction and operation.</li> </ul>	<ul style="list-style-type: none"> <li>· Road closures exceeding acceptable frequency.</li> </ul>

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
	Traffic Vehicles Cause Destruction on Roads and Buildings	· Analyzing damages to roads and buildings by conducting periodic visual assessments in areas where construction vehicles operate.		· Visual inspections, documenting damages.	· Areas where construction vehicles operate.	· Real-time monitoring of road conditions. · Periodic visual assessments	· Occurrence of damages to roads and buildings beyond permissible levels.
Constructional Phase I = 1 L = 1	Risk 4: · Chemical Spills and Leaks · Improper Storage and Disposal of Materials · Inadequate Stormwater Management · Inadequate Hazardous Material Handling	· Monitoring and control chemical levels and respond to incidents	· Chemical concentrations	· Visual inspection and periodic manual testing.	· Areas where chemicals are stored, handled, or processed	· Regular inspections	· Immediate response to any signs of leakage or contamination
Construction Phase I = 4 L=1	Risk 5: Earthquake Risk	· Earthquake activities should be constantly monitored with sensitive earthquake sensors and monitoring systems placed in the project area. · Continuous monitoring systems should be established for solar power panels, support structures, inverters and other structural elements. · Structural strengthening works should be carried out within a certain period in order to minimize the damages that may occur under the influence of earthquakes.	· Liquefaction rates · Soil classification · earthquake design classes · settlement suitability data	· Ground survey · Structural strengthening	· Project Site and surrounding areas	Continuous monitoring with real-time updates. Continuous monitoring with real-time or periodic reviews. · Immediate reporting for any incidents and periodic documentation for routine checks	· Alarming system according to the earthquake intensity · Ground movement sensor · Remote sensing technologies, such as energy distribution

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
Construction Phase I = 2 L=2	Risk 6: Possibility of floods due to excessive rainfall	· Inspect temporary drainage systems and ensure they are functioning properly to divert water away from the construction site. Cover and secure materials and equipment to prevent water damage.	· Efficiency of temporary drainage systems.	· Visual Inspections · Installation of silt fences, barriers, or temporary drainage ditches	· Around the construction site and temporary storage areas	· Regular and ongoing visual monitoring during periods of intense rainfall events	· Monitor changes in rainfall and water level with scales and indicators from closest meteorological station.
Construction Phase I = 1 L=1	Risk 7: Landslide Risk	· Regular visual inspections of the construction site	· Signs of soil movement or erosion · Effectiveness of erosion control measures.	· Visual inspections, simple measurements	· Sloped areas around the construction site	· Periodic site inspections, typically scheduled monthly or seasonally, depending on project characteristic and local conditions	· Exceeding acceptable frequency (due to visible signs of potential instability, such as cracks, soil erosion, or changes in vegetation health, or devices measurement) · Occurrence of damages to slopes beyond permissible levels
Constructional Phase I = 4 L=1	Risk 9: Effects on Workforce and OHS	· To establish an incident reporting system and encourage its use by employees for reporting and documenting workplace incidents, · Regular health assessments according to 6331 Law, its regulation and WB ESP to monitor employees' health conditions and facilitate	· Workforce health and safety indicators, including accident rates, workplace stress levels, and health-related incidents/ near misses, injuries, and safety violations/near misses, fire and	· Data collection through incident reports, health assessments, safety inspections, accident investigations and surveys	· Project site and areas where the workforce is most active and where with heavy equipment use	· Regular and ongoing monitoring during periods of intense construction and operation activities	· Define thresholds for incident rates and workforce stress levels that warrant corrective action

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
		<p>prompt intervention or preventive measures for emerging health issues,</p> <ul style="list-style-type: none"> <li>· Periodically identifying factors contributing to workplace stress and conducting workplace stress surveys to eliminate stressors,</li> <li>· Regular inspections by relevant regulatory authorities to identify potential hazards in the construction area and alleviate the physical and mental fatigue of workers during intensive construction periods,</li> <li>· Conducting emergency drills to ensure swift action in case of emergencies, and ensuring that all employees are familiar with evacuation procedures and emergency protocols,</li> <li>· Maintaining effective and transparent communication among employees, employers, and relevant stakeholders, establishing continuous communication channels for reporting any safety concerns or issues,</li> <li>· Monitoring and regulating working and break hours to prevent excessive fatigue,</li> </ul>	environmental incidents/near misses				

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
		ensuring that employees take regular breaks.					
Constructional Phase I = 2 L = 2	Risk 10: Community Health and Safety During Execution of Works	<ul style="list-style-type: none"> <li>· Regular inspections of fenced areas and signage to ensure they are maintained and effective.</li> <li>· Monitoring of work hours to ensure that activities are conducted outside of high-traffic or operational hours.</li> <li>· Inspection of approach areas and storage areas to verify they are secured and inaccessible to unauthorized personnel.</li> <li>· Periodic checks for dust levels to ensure compliance with air quality standards.</li> </ul>	<ul style="list-style-type: none"> <li>· Condition and visibility of fencing and signage.</li> <li>· Compliance with established work hours.</li> <li>· Security of approach and storage areas.</li> <li>· Dust particle levels in the surrounding environment</li> </ul>	Visual inspection, regular audits, air quality sampling	Approach roads, storage areas, and work sites within the project boundary.	<ul style="list-style-type: none"> <li>· Daily during construction activities.</li> <li>· Weekly (dust monitoring.)</li> <li>· Ad hoc inspections based on complaints or identified risks.</li> </ul>	<ul style="list-style-type: none"> <li>· Breach in fencing or unauthorized access.</li> <li>- Deviation from work hours.</li> <li>- Dust levels exceeding standards.</li> </ul>



Table 7 : Monitoring Plan for the Operation Phase of the Project

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
Operational Phase I = 0 L = 0	Risk 2: Exhaust Emissions, from Vehicle Traffic and Equipment	<ul style="list-style-type: none"> <li>Regular maintenance checks on vehicle and equipment exhaust systems.</li> <li>Monitoring of air quality parameters using basic portable devices in critical areas.</li> </ul>	<ul style="list-style-type: none"> <li>Exhaust emissions levels</li> <li>PM (Particulate Matter) concentration</li> </ul>	<ul style="list-style-type: none"> <li>Periodic visual inspections</li> <li>Maintenance records and periodic exhaust testing</li> </ul>	<ul style="list-style-type: none"> <li>High-traffic areas within the site</li> </ul>	<ul style="list-style-type: none"> <li>After significant maintenance</li> <li>Monthly or quarterly</li> </ul>	<ul style="list-style-type: none"> <li>emissions beyond acceptable levels</li> <li>Emissions exceeding permissible levels</li> </ul>
Operational Phase I = 0 L = 0	Risk 3: Temporary Blockage of Transportation Roads between Settlements Traffic Vehicles Cause Destruction on Roads and Buildings	<ul style="list-style-type: none"> <li>Analyzing road blockages, duration, and frequency through real-time assessments of transportation routes.</li> <li>Analyzing damages to roads and buildings by conducting periodic visual assessments in areas where vehicles operate.</li> </ul>	<ul style="list-style-type: none"> <li>Road blockages, duration, and frequency.</li> <li>Damage to roads and buildings</li> </ul>	<ul style="list-style-type: none"> <li>Record road closure incidents and duration.</li> <li>Visual inspections, documenting damages.</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle operation areas.</li> <li>Transportation routes.</li> <li>Areas where vehicles operate.</li> </ul>	<ul style="list-style-type: none"> <li>Periodic emissions testing during and operation.</li> <li>Real-time monitoring of road conditions.</li> <li>Periodic visual assessments</li> </ul>	<ul style="list-style-type: none"> <li>Road closures exceeding acceptable frequency.</li> <li>Occurrence of damages to roads and buildings beyond permissible levels.</li> </ul>
Operational Phase I = 0 L = 0	Risk 4: <ul style="list-style-type: none"> <li>Chemical Spills and Leaks</li> <li>Improper Storage and Disposal of Materials</li> <li>Inadequate handling of waste PV modules</li> </ul>	<ul style="list-style-type: none"> <li>Regular visual inspections of chemical storage areas</li> <li>Ensure proper labeling and secure storage of all chemicals.</li> <li>Monitor stormwater systems for any signs of contamination</li> <li>Train staff on basic hazardous material handling</li> </ul>	Visible leaks or spills	<ul style="list-style-type: none"> <li>Visual inspection</li> <li>Periodic checks</li> <li>Simple water testing (pH, turbidity)</li> </ul>	<ul style="list-style-type: none"> <li>Chemical storage and handling areas</li> <li>Designated storage areas</li> </ul>	<ul style="list-style-type: none"> <li>Weekly/monthly/annually</li> <li>After heavy rain events</li> </ul>	<ul style="list-style-type: none"> <li>Immediate response to any signs of leaks or spills</li> </ul>
Operational Phase I=1 L=3	Risk 5: Earthquake Risk	<ul style="list-style-type: none"> <li>Install earthquake sensors to monitor seismic activity in real-time.</li> <li>Develop and maintain an emergency response plan for seismic events.</li> </ul>	<ul style="list-style-type: none"> <li>Seismic activity levels</li> <li>Structural integrity of panels and supports</li> </ul>	<ul style="list-style-type: none"> <li>Use of real-time earthquake sensors</li> <li>Visual inspections and structural assessments</li> </ul>	<ul style="list-style-type: none"> <li>Project site and building structure</li> </ul>	<ul style="list-style-type: none"> <li>Continuous monitoring</li> <li>Annually, or after significant seismic activity</li> </ul>	<ul style="list-style-type: none"> <li>Immediate alerts for seismic events exceeding safety thresholds</li> </ul>

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
		<ul style="list-style-type: none"> <li>Conduct regular structural integrity checks on solar panels and mounting systems.</li> </ul>					
Operational Phase I=1 L=	Risk 6: Possibility of floods due to excessive rainfall	<ul style="list-style-type: none"> <li>Regular checks of the roof drainage system to ensure it is clear of debris and functioning properly.</li> <li>Ensure that roof slopes and gutters are properly maintained to prevent water accumulation</li> </ul>	<ul style="list-style-type: none"> <li>Drainage system efficiency</li> <li>Roof slope condition</li> </ul>	<ul style="list-style-type: none"> <li>Visual inspections of drainage pathways</li> <li>Visual inspection and simple maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Roof drainage points</li> <li>Entire roof surface</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly, and after heavy rainfalls</li> </ul>	No blockages or water pooling on the roof
Operational Phase I = 1 L=1	Risk 7: Landslide Risk	<ul style="list-style-type: none"> <li>Regular visual inspections of the building's foundation and surrounding soil</li> </ul>	<ul style="list-style-type: none"> <li>Signs of soil movement, cracks, or erosion</li> </ul>	<ul style="list-style-type: none"> <li>Visual inspections</li> </ul>	<ul style="list-style-type: none"> <li>Building foundation and adjacent areas</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly, and after heavy rainfalls</li> </ul>	No visible soil displacement, cracks, or erosion
Operational Phase I=3 L=3	Risk 8: Reflection and Glare Effect	<ul style="list-style-type: none"> <li>Implement visual monitoring protocols to observe and record glare and reflection events.</li> <li>Use specialized glare measurement tools to provide quantitative data.</li> <li>Conduct monitoring during different times of the day and under various weather conditions to capture variations.</li> </ul>	<ul style="list-style-type: none"> <li>The intensity and frequency of glare and reflection from the solar panels and surrounding areas and the times of the day, seasons, or specific weather conditions when glare and reflection effects are most pronounced.</li> </ul>	<ul style="list-style-type: none"> <li>The intensity and frequency of glare and reflection from the solar panels and surrounding areas and the times of the day, seasons, or specific weather conditions when glare and reflection effects are most pronounced.</li> </ul>	<ul style="list-style-type: none"> <li>The intensity and frequency of glare and reflection from the solar panels and surrounding areas.</li> </ul>	<ul style="list-style-type: none"> <li>The intensity and frequency of glare and reflection from the solar panels and surrounding areas.</li> </ul>	<ul style="list-style-type: none"> <li>Define specific detection limits that indicate the threshold beyond which glare and reflection effects become significant and may require corrective action.</li> </ul>
Operational Phase I = 3 L=1	Risk 9: Effects on Workforce and OHS	<ul style="list-style-type: none"> <li>To establish an incident reporting system and encourage its use by employees for reporting and</li> </ul>	<ul style="list-style-type: none"> <li>Workforce health and safety indicators, including accident rates, workplace stress levels, and</li> </ul>	<ul style="list-style-type: none"> <li>Data collection through incident reports, health assessments, safety inspections, accident</li> </ul>	<ul style="list-style-type: none"> <li>Project site and areas where the workforce is most active and where with heavy equipment use</li> </ul>	<ul style="list-style-type: none"> <li>Regular and ongoing monitoring during periods of intense</li> </ul>	<ul style="list-style-type: none"> <li>Define thresholds for incident rates and workforce stress levels that</li> </ul>

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
		<ul style="list-style-type: none"> <li>· documenting workplace incidents,</li> <li>· Regular health assessments according to 6331 Law, its regulation and WB ESP to monitor employees' health conditions and facilitate prompt intervention or preventive measures for emerging health issues,</li> <li>· Periodically identifying factors contributing to workplace stress and conducting workplace stress surveys to eliminate stressors,</li> <li>· Regular inspections by relevant regulatory authorities to identify potential hazards in the construction area and alleviate the physical and mental fatigue of workers during intensive construction periods,</li> <li>· Conducting emergency drills to ensure swift action in case of emergencies, and ensuring that all employees are familiar with evacuation procedures and emergency protocols,</li> <li>· Maintaining effective and transparent communication among employees, employers, and relevant stakeholders, establishing</li> </ul>	health-related incidents/ near misses, injuries, and safety violations/near misses, fire and environmental incidents/near misses	investigations and surveys		construction and operation activities	warrant corrective action

Phase Impact and Likelihood (1-5)	Risk Description	Monitoring Measures	Parameters	Method	Sampling Locations	Frequency	Detection Limits
		<ul style="list-style-type: none"> <li>continuous communication channels for reporting any safety concerns or issues,</li> <li>Monitoring and regulating working and break hours to prevent excessive fatigue, ensuring that employees take regular breaks.</li> </ul>					
Operational Phase I = 2 L=2	Risk 11: Storage of Damaged or End of Lifecycle Panels	<ul style="list-style-type: none"> <li>Analysis of storage conditions and recycling processes regularly.</li> </ul>	<ul style="list-style-type: none"> <li>Condition of stored panels</li> </ul>	<ul style="list-style-type: none"> <li>Visual inspection</li> </ul>	<ul style="list-style-type: none"> <li>Temporary storage areas on site</li> </ul>	<ul style="list-style-type: none"> <li>Regular checks</li> </ul>	<ul style="list-style-type: none"> <li>Presence of damaged panels beyond allowable limits</li> </ul>

## Measures for Institutional Arrangements, Capacity Development, and Training

In the context of the Sub-Project aiming to increase renewable energy production in the Gümüşhacıköy district, institutional arrangements for managing environmental and social issues need to be established to ensure its implementation with minimized potential impacts. In the Environmental and Social Management Framework of the World Bank's Sustainable Cities Project-II Additional Financing (World Bank, 2019), ILBANK Project Management Unit (PYB), and the project owner municipalities are identified as key actors. Roles and capacities of actors are defined, and necessary adjustments are made for the effective implementation of sub-projects. For the SPP project to be constructed in the Gümüşhacıköy district, the main actors are the World Bank, ILBANK, Gümüşhacıköy Municipality, Contractor, Supervision Consultant, and E&S Consultant.

### Gümüşhacıköy Municipality

Renewable energy projects in Gümüşhacıköy Municipality are managed by the Technical Works Directorate with a staff of three, including an environmental engineer, a civil engineer, and a land surveyor. There is currently no unit used as a complaint mechanism in Gümüşhacıköy Municipality. According to the ESMP, the Technical Works Directorate, Research Project Directorate, Plan-Project Directorate, Headman Affairs, Human Resources and Training Directorate, and Culture and Social Affairs Directorate teams within the municipality should be involved in a Project Management Unit.

Table 8: Roles and Responsibilities for the Implementation of ESMP

Actor/Stakeholders	Responsibilities
Gümüşhacıköy Municipality	ESMP Management, Implementation of mitigation measures, Monitoring of environmental and social impacts, Establishment of Grievance Mechanism, Reporting on ESMP compliance and progress to ILBANK and WB, Coordination with stakeholders for ESMP implementation;
ILBANK	Monitoring and supervising the process of ESMP implementation. Reporting the progress of ESMP implementation to WB on regular periods Ensuring ESMP requirements are integrated into project activities.
Contractor/Subcontractor(s)	Implementation of ESMP measures during construction. Reporting environmental and social issues to Gümüşhacıköy Municipality. Ensuring compliance with ESMP requirements in all activities. Informing Gümüşhacıköy Municipality on construction activities (such as road closures and service interruptions). Managing environmental impacts like waste, noise, and pollution. Internal Reporting to Gümüşhacıköy Municipality on ESMP Implementation.
Supervision Consultant	Providing guidance on ESMP compliance.

	<p>Provide necessary information to Gümüşhacıköy Municipality  Assisting Gümüşhacıköy Municipality in managing and mitigating impacts.  Monitoring the effectiveness of ESMP measures.</p>
WB	<p>Audit the Gümüşhacıköy Municipality's compliance with the provisions set out in the ESMP managed by the Municipality during the construction and operation phase via the Project Progress Reports  Visit project sites to conduct its own monitoring at certain intervals or when necessary.</p>

## Implementation of ESMP Disclosure

Ensuring the full integration and implementation of this ESMP into all project preparation and planning activities constitutes one of the key responsibilities of Gümüşhacıköy Municipality. It will provide a framework for all physical works and participation processes within the scope of the project. It will be an integral part of the matrices prepared for the tender processes related to physical works. The technical requirements, conservation, preservation, and monitoring measures outlined in the ESMP will be strictly adhered to in the tender documents, and it will be explicitly stated that the processes will be subject to review according to this plan.

The ESMP, prepared in accordance with the requirements of the World Bank Safeguard Policies, will be publicly disclosed. and will be the responsibility Gümüşhacıköy Municipality. . Gümüşhacıköy Municipality will publish the final approved ESMP on its website. Additionally, a unit, easily accessible by affected groups such as Muhtar offices and local NGOs as outlined in the Stakeholder Analysis section of this plan report, will be established.

Like all management plans, the ESMP has a dynamic structure. It will be periodically reviewed during the implementation and operation phases of the project, deficiencies, malfunctions, and issues will be reported, and based on these reports, it will be updated and approved when deemed necessary. For each approved updated version of this ESMP, Gümüşhacıköy Municipality is responsible for sharing it with the public and providing explanations through communication channels. Thus, the implementation of the ESMP and the actions taken during the implementation process will be transparently shared with the public. The ESMP must be disclosed to all stakeholders and the public as part of environmental and social impact assessment studies.

Documents necessary for the implementation of the ESMP should also be prepared accordingly, and each system required for the project, such as the Grievance Mechanism, should be explained.

NOTE: Details of ESMP disclosure will be inserted here, upon completion.

## Institutional Capacity Building and Training

The Project Owner, Gümüşhacıköy Municipality, will conduct a training and awareness program covering the expectations and commitments of the ESMF. The Supervision Consultant, in collaboration with the Project Owner, needs to organize a workshop to identify priority topics for the training. The target audience for the training programs includes employees and contractors responsible for implementing the ESMP. The Project Owner must provide training to employees and subcontractors before the construction phase begins. The training is expected to last at least two days and should be held twice a year. Depending on the level of responsibility for implementing the ESMP, advanced training programs should also be considered.

The code of conduct, including compliance with behavioral rules addressing gender-based violence, sexual harassment, sexual exploitation, and abuse, will be explicitly stated in the personnel's contract terms. The consequences of non-compliance with behavioral rules will be clearly outlined in the contract. Measurement and evaluation should be conducted at the end of the training provided to personnel.

This aims to enhance the competence of the personnel. Based on the review results, adjustments to the training program can be made if necessary, including changes in trainers or repeating the training. The training program/modules will cover a range of topics, including but not limited to:

- Objectives of the ESMF concerning project activities,
- Requirements in management plans and monitoring activities to be conducted within this framework,
- Environmental and social data collection, reporting, and monitoring,
- Understanding sensitive environmental and social receptors in the project area and surroundings,
- Raising awareness about potential risks and impacts arising from project activities,

- Trainings related to management of air emissions, waste management, etc.
- Routine training on fire safety and first aid
- Complaints redress mechanism developed within the project scope, the officer responsible for the mechanism, and employee rights,
- Risks and measures related to community health and safety, personal protective equipment and information on works and occupational safety.
- Occupational health and safety, first aid, emergency preparedness, and emergency scenarios
- Rules for maintaining behavior and workplace harmony,
- Communication with the local community,
- Training on behavioral rules covering gender-based violence, sexual harassment, sexual exploitation, and abuse,
- Principles of traffic and road safety,
- Waste separation, storage, and training on environmental planning.
- Capacity building activities such as training, workshop, study tours
- ESF Borrower Training roll out program.

### Environmental and Social Monitoring Report

The Environmental and Social Monitoring Report serves as a crucial tool for recording performance indicators, parameters, and measurement values at specified intervals to be used in the measurement of safeguards and monitoring measures. It is critical for anticipating potential issues that may arise throughout the project's life cycle and determining mitigation, reduction, and improvement strategies to effectively address these issues. The results will be assessed for compliance with established standards by comparing them with national legislative requirements and the World Bank EHS Guidelines. Visual observations, along with documented significant issues, will be presented in written form. The report should focus on both positive practices and negative findings, with photographic evidence supporting negative observations. For each negative observation, a corrective action should be proposed with a reasonable deadline. Any analysis/sample collection/measurement report should be provided as an annex to the report, along with the relevant assessment and required improvement activities. The findings of the Environmental and Social Monitoring Reports will ensure the dynamic and living nature of this ESMP. Therefore, the ESMP should be reviewed and revised by the Municipality's PIU unit based on these findings.

Long-term monitoring reports are used to objectively evaluate the environmental and social performance of the project and determine its sustainability. This is a vital tool for understanding the long-term impacts of the project, developing strategies for future similar projects, and keeping the ESMP updated over time. Monitoring reports identify issues that can be improved and localized by assessing the project's environmental and social governance. It is expected to be used to develop strategic management to strengthen relationships among stakeholders influenced by the project and minimize its impacts. Additionally, long-term monitoring reports are used to evaluate the project's societal acceptance and reputation. Monitoring reports to be prepared within the scope of the project will also be submitted every 3 months to ensure supervision. Continuous communication with stakeholders, obtaining feedback, and developing effective response strategies to this feedback are important in this regard. The experience gained will contribute to identifying potential problems in advance and developing emergency intervention strategies.

Documenting and monitoring the environmental and social performance of the project for the World Bank and ILBANK enhances trust in the project and increases the municipality's future financial reliability. Furthermore, monitoring reports contribute to the development of good practice standards in the renewable energy sector, the widespread implementation of similar projects at the district and even provincial levels, and the localization of relevant standards, thereby contributing to regional development and sustainable development goals.



In addition to all these, it will provide an important baseline for physical spatial planning studies that determine the future of cities. It is expected to generate important data in terms of identifying criteria that can be used in determining suitable areas for renewable energy and integrating them into planning processes. Long-term evaluations obtained through monitoring reports will be crucial for ensuring the sustainability of planning decisions throughout the life cycle of projects, assessing environmental and social changes, and providing opportunities to enhance planning processes.

## 6. Stakeholder Engagement

This Stakeholder Analysis is based on the relevant Turkish legislation and international regulations by considering the project is exempt from EIA and classified as a Category B Project according to the WB OP 4.01. In conformity, relevant WB OPs (i.e., WB OP 4.01 and WB's 2010 Policy on Access to Information) and EU Directives. In this regard, the relevant national and international policies considered are given below.

### Stakeholder Identification and Analysis

The purpose of a stakeholder identification is to determine and prioritize the project stakeholders for consultation that may be affected (either directly or indirectly in positive or negative way) by the project or that have an interest in the project but are not necessarily directly impacted by it.

The following categories of stakeholders have been identified as being affected by or potentially interested in the Gümüşhacıköy Municipality Solar Power Project.

- Project affected parties,
- National governmental and non-governmental organizations (NGOs),
- Local governmental organizations and NGOs,
- Residents (potentially PAPs including landowners/users/ renters/ informal users of the lands),
- Local businesses
- Vulnerable groups
- Refugees

In the stakeholder identification process, the dynamics between the stakeholders, the risks, and opportunities of being involved in the project are considered. The basis of stakeholder identification is the level of interest and interaction with the project. Accordingly, stakeholders can be grouped under the following categories.

- Direct Stakeholders
- Indirect Stakeholders
- Other Interested Parties

Within the scope Gümüşhacıköy Municipality Solar Power Plant Project of this project, a comprehensive list of the internal and external stakeholders is given in Table 9.

Table 9: Comprehensive List of the Stakeholder Identified for the Project

Stakeholder Groups	Level of Interest	Level of Influence
<b>Direct Stakeholders</b>		
<b>Directly Affected Communities</b>		
Residents in the project area of influence	Moderate	Low
Vulnerable individuals/groups in the project area of influence	Low	Low
SuTP living in project areas of Amasya	Low	Low
Formal or informal users of lands allocated to the project	Low	Low
<b>Public Administrations at National Level</b>		
The Ministry of Environment, Urbanization and Climate Change.	Low	Low

Stakeholder Groups	Level of Interest	Level of Influence
<b>Direct Stakeholders</b>		
Ministry of Energy and Natural Resources	High	High
Turkish Energy Market Regulatory Board	Low	Low
Ministry of Industry and Technology	Low	Low
General Directorate of Energy Affairs	High	High
General Directorate of ILBANK	High	High
Directorate General of Migration Management	Low	Low
<b>Public Administrations/Authorities/Agencies at Provincial Level</b>		
Gümüşhacıköy Municipality	High	High
Gümüşhacıköy Governate	Medium	Medium
Provincial Directorate of Environment, Urbanization and Climate Change	Moderate	High
Mukhtar of Artıkabat Neighborhood	Moderate	High
YEDAŞ Electricity Distribution Company	High	High
Contractors/Sub-contractors and Supervision Consultant Companies	High	High
<b>Indirect Stakeholders</b>		
<b>Indirectly Affected Communities</b>		
Residents outside of the project area of influence	Low	Low
Vulnerable individuals/groups outside of the project area of influence	Low	Low
<b>Public Administrations at National Level</b>		
Ministry of Agriculture and Forestry	Low	Low
<b>Public Administrations/Authorities/Agencies at Provincial Level</b>		
Governorship Gümüşhacıköy	Low	Moderate
Provincial Directorate of Disaster and Emergency	Low	Low
Provincial Directorate of Health	Low	Low
T.C. Zafer Development Agency	Low	Low
Turkish Employment Agency (IS-KUR) –Amasya Branch	Low	Moderate
<b>Other Interested Parties</b>		
Chamber of Environmental Engineers	High	High
International Solar Energy Society (GUNDER)	Moderate	Moderate
International Refugee Rights Association	Low	Low
Business enterprises located in the Project area	Moderate	Moderate
Amasya University	Low	Low

The types and causes of exposures and how the above-mentioned stakeholder groups are affected (positive/negative) are given in Table 10.

Table 10: The Potential Impacts of Project Activities on Social Components

Social Component	Type of Potential Impact (Positive/Negative)	Potential Impact Definition
Emergency Response	Positive	After the increase in the electricity prices in Türkiye, municipalities are having difficulties paying them. After the implementation of this project, it is expected to be offset the energy demand and decrease in carbon footprint.
Local Employment	Positive	Employment opportunities for local engineers and manpower.
Transportation/Traffic	Negative	Safety issues due to increase in traffic, damages on roads, generation of greenhouse gas emissions / noise.
OHS and Community H&S	Negative	Water pollution, air emissions/noise and visual pollution
Tourism	Negative	Aesthetic issues.

As part of the stakeholder identification process, it is also important to identify individuals and groups that may be differentially or disproportionately affected by the Project because of their disadvantaged or vulnerable status. The potential vulnerable/disadvantaged groups can be listed as follows:

- Households with physically and / or mentally disabled family members,

- People with chronic diseases,
- Elderly people over 65 years of age who live alone and in need of care,
- Female-headed households,
- Households where the head of the household is a child,
- Households with low or no income, and
- Refugee households.

Considering the potential vulnerable/disadvantaged groups, the summary of project stakeholder needs is given in Table 11.

Table 11: Potential Vulnerable/Disadvantaged Groups and their needs

Community	Stakeholder group	Key characteristics	Language needs	Preferred notification means (e-mail, phone, radio, letter)	Specific needs (accessibility, large print, childcare, daytime meetings)
Artikabat Neighborhood	Parents with young children	The number of households affected and which of children - To be Determined (TBD)	Official language	Written information, radio	Childcare for meetings—late afternoon preferred timing
	Refugees	The number of extended families TBD, poverty level	Language alternative	Visit with translator and civil society representative	Graphics, education on process
	Persons with disability	The number of disabled person TBD	Official language and/or sign language	Written information, radio and/or face-to-face with competent person on sign language if possible	Accessibility i.e., providing transportation
	Other groups	The number of person TBD	Official language	Written information, radio Visit at their own places	Graphics, education on process

## Stakeholder Engagement Plan

Stakeholder Engagement is a control mechanism that ensures the implementation of key principles during the project. The engagement activities will not be scheduled in a manner due to the small capacity of solar power plant project. To maximize stakeholder engagement, it prevents disruption of local stakeholders' daily work and regulates the timing and number of engagement activities. Accordingly, recording the findings and feedback together in accordance with all engagement activities, sharing them with the responsible parties, and following the process are essential. Also, engagement activities need to be culturally appropriate, provide equal access to relevant stakeholders, and enable their feedback. No stakeholder engagement activities will be scheduled for this project.

## Grievance Mechanism

Gümüşhacıköy Municipality will establish a Grievance Mechanism (GM) to receive, resolve, and follow the concerns and complaints of the Project affected communities. All grievances will be effectively received, recorded, and responded to within a predetermined timeline and based on their contents. The grievance mechanism has been prepared in accordance with the environmental and social standards of the World Bank (World Bank, 2018) At the earliest convenience, the stakeholders will have access to Gümüşhacıköy Municipality PIU and Contractor dedicated CLOs for responses to

responses to grievance. Stakeholders will be informed on the Satisfactory responses to the grievances and corrective activities. The GM for the stakeholders will be operated according to the following procedure.

1. Following tools will be used so that all stakeholders can be informed regarding the Project's GM process:
  - Web page
  - Email address
  - Public meetings
  - Telephone
  - Frequently Asked Questions (Brochure, web page, bulletin, etc.)
2. Grievances can be submitted by the channels outlined below:
  - Telephone (Call Center and units) (0358 717 10 04)
  - Personal visit to Gümüşhacıköy Municipality and Contractor head office/branches
  - Grievance boxes (installed at the Gümüşhacıköy Municipality Units / Contractor)
  - Relevant public administrations (district governorship, municipality, headmen)
  - Email ([bilgi@gumushacikoy.bel.tr](mailto:bilgi@gumushacikoy.bel.tr))
  - Meetings
  - Staff and local communication desk of Gümüşhacıköy Municipality / Contractor
  - By written petition to Gümüşhacıköy Municipality / Contractor
  - During site visits and miscellaneous
3. All the submitted grievances are collected at the GM Section of PIU Department.
4. The submitted grievances are recorded in databases by CLOs of PIU and Contractor.
5. PIU and Contractor CLOs or any contact person who received the grievance confirm the grievance reception via phone and/or email within 2 days.
6. The response to the relevant grievance will be drafted by CLOs of PIU / Contractor and approved by Project Managements.
7. After responding to the relevant grievance, necessary revisions will be made on the Grievance Form with respect to the result of GM process which will be communicated with relevant Complainant within 10 working days. The required actions for valid grievances will be taken within 15 working days. If applicant accepts the resolution within 30 days, the submitted grievance is marked as closed. If the applicant does not sign-off Complaint Close-Out Form due to insufficient satisfaction, a meeting will be organized by the PIU management on relevant complaint and if necessary, with the participation of Contractor. The complainant can participate this meeting to submit his/her Project-related concern face to face to the management. The aim of this meeting is to find alternative solutions of which both parties agree with.
8. All the grievances will be monitored by recording them via the monitoring and evaluation system which will be established within the scope of GM.
9. Regarding grievances received by Contractor; the grievances which are within the scope of Contractor responsibility will be handled by itself and reporting to the PIU during monitoring activities. The grievances within the scope of Gümüşhacıköy Municipality responsibility will be immediately communicated with PIU by Contractor and handled by the PIU accordingly. Contractor CLO is responsible for recording and tracking grievances.

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

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

During construction and operational activities, the GM described above shall continue to be driven by stakeholders' views, making this procedure accessible to all affected stakeholders. Requests that require urgent remedy and/or support shall be responded to and given support within the same day. All outstanding grievances/requests shall be recorded within two business days, reviewed, and assessed within ten business days, and concluded not later than 15 business days. Corrective actions shall be taken to resolve the grievance. GM Flow Chart is given in Table 12 .

Table 12: Grievance Mechanism Flowchart

Stage of GM	Required Action
Grievance submission	Receiving the grievance by any above-mentioned communication channel. (Following to receive more sensitive grievances i.e., SEA/SH, child abuse or abuse, necessary action will be taken within 48 hours. For such cases at the workplaces, the complaint will be directed by the GM focal point (based in ILBANK headquarter) to relevant legal authorities/service providers such as Ministry of Family and Social Services and Prosecutors Office.)
Grievance registration	Grievance Form and Grievance Register Table are used during registration process. After grievance registration, feedback will be sent to the Complainant for the purpose of confirmation within two (2) days. Anonymous registration will be conducted if a Complainant requests that complaint of whom is handled anonymously.
Grievance assessment	Grievances are assessed within 10 working days with the clarification of the fact that relevant grievance is compliance with admissibility criteria. The Complainant will be informed appropriately in case of invalid grievances.
Responses to the grievances	According to the grievance type, consultation with stakeholders in question can be conducted on site. After grievance assessment, grievance will be responded appropriately via previously mentioned communication channels. Application to ILBANK or Court of First Instance is also available for Complainants if a resolution cannot be figured out for whose grievances.
Grievance closure	As long as alternative agreement is not conducted, grievance of Complainant is closed within fifteen (15) Business Days as of submission date and the Grievance Close Out Form is filled accordingly. In the case of grievances cannot be closed within fifteen (15) Business Days, it is ensured that well documented mitigatory circumstances related to which are reported. Regarding the anonymous grievances, outcome of GM process and associated taken actions should be declared on Gümüşhacıköy Municipality website for the purpose of informing relevant Complainants.
In the case of unresolved grievances	ILBANK monitors GM process according to following outline: -Confirmation of grievance submission -Assessment of grievance by the Gümüşhacıköy Municipality and information to ILBANK accordingly -Communication of grievance response to Complainant by the Gümüşhacıköy Municipality which is monitored by ILBANK (The timeframe for response at this level is thirty (30) days.)

Stage of GM	Required Action
	-Application to Court of First Instance by Complainants in case of unresolved grievances
Reporting	The grievances will be analyzed quarterly by Gümüşhacıköy Municipality PIU considering the frequencies, types, and resolution methods of which. By doing this, for instance, complaints submitted by majority of Contractor/Subcontractor(s) and/or those originated from certain works can be determined in a better way. The outcomes are reported to the PIU management by CLOs
Right to Appeal	If the complaint cannot be resolved with the existing process, applicants can always apply to relevant legal institutions. Such institutions can be summarized as follow: <ul style="list-style-type: none"> <li>• Civil Courts of First Instance</li> <li>• Administrative Courts</li> <li>• Commercial Courts of First Instance</li> <li>• Labor Courts, and</li> </ul> Ombudsman ( <a href="https://ebasvuru.ombudsman.gov.tr/">https://ebasvuru.ombudsman.gov.tr/</a> )

### Monitoring and Reporting

Gümüşhacıköy Municipality PIU and the Contractor CLO will record all incoming corporate grievance/comment databases.

Gümüşhacıköy Municipality PIU will assess the number and nature of grievances/comments (if any) quarterly and their effectiveness to address grievances/comments based on the number and percentage of closed grievances. The monitoring framework is described in Table 13.

Table 13: Grievance Mechanism Monitoring Framework

Parameter	Key Performance Indicator	Phase	Frequency	Responsible Party
<b>Public GM</b>	<ul style="list-style-type: none"> <li>• Number of grievances/comments received during per consultation</li> <li>• Types of the grievances/comments (community HS, employment, local procurement etc.)</li> <li>• Timeframes for response to each grievance</li> <li>• The number of open or closed grievances</li> <li>• Number of invalid or in progress grievances</li> </ul>	Construction	Quarterly	- To be assigned by Gümüşhacıköy Municipality PIU and Contractor
		Operation	Semi-annually in the first two years; Annually afterwards	- To be assigned by Gümüşhacıköy Municipality PIU and Contractor
<b>Workers' GM</b>	<ul style="list-style-type: none"> <li>• Number of grievances/comments received by own workers</li> <li>• Number of grievances/comments received by indirect workers</li> <li>• Types of the grievances/comments regarding worker management and working conditions (e.g. Worker rights, OHS, etc.)</li> <li>• Timeframes for response to each grievance</li> </ul>	Construction	Monthly	- To be assigned by Gümüşhacıköy Municipality PIU and Contractor
		Operation	Semi-annually in the first two years; Annually afterwards	- To be assigned by Gümüşhacıköy Municipality PIU and Contractor

Parameter	Key Performance Indicator	Phase	Frequency	Responsible Party
	<ul style="list-style-type: none"> <li>• The number of open or closed grievances</li> <li>• Number of invalid or in progress grievances</li> </ul>			
<b>GM</b>	Effectiveness of the GM	Construction	Quarterly	ILBANK

### Public Consultation Meeting

A Public Consultation Meeting was held on 18.12.2024 at 10:00 a.m. following the completion of the ESMP. Public Consultation Meeting announcements were published on the official website and in national and local newspapers. Brochures regarding the meeting were hung in the neighborhood mukhtar's offices and on bulletin boards. During the Public Consultation Meeting organized by Gümüşhacıköy Municipality, general information about the project was provided, and the meeting was opened with a speech by the Mayor of Gümüşhacıköy Municipality. The Ardea Project Consultancy Team explained that the Gümüşhacıköy Municipality SPP project is financed under the World Bank's Sustainable Cities Project II Additional Financing and highlighted its significance as an important step in the use of renewable energy and combating climate change. It was stated that the project would cover a significant portion of the municipality's energy costs through clean energy and is planned to be completed within 5 months.

The technical details of the project, the suitability of the land, and the area's solar energy potential were presented in detail. Within the scope of the ESMP, environmental and social risks were assessed, and the current status of the region was analyzed, including its geographical and climatic conditions, natural and cultural values, and risks related to natural disasters such as floods and earthquakes. It was emphasized that the project could create future social and economic opportunities for the local population and that the use of renewable energy resources is essential in the fight against climate change. Furthermore, it was stated that the grievance mechanism would be prioritized throughout the construction and operational phases, and the Gümüşhacıköy SPP project would serve as an exemplary initiative for the region. Finally, opinions, suggestions and questions from the participants were received and answered. Minutes of the meeting given in the Annex 3.

## 7. Annexes

Annex 1: Roles and Responsibilities of Main Actors of SPP Subproject

	<b>Gümüşhacıköy Municipality</b>	<b>ILBANK</b>	<b>WB</b>	<b>Contractor</b>	<b>Supervision Consultant</b>	<b>E&amp;S Consultant</b>
<b>Financial Roles</b>	Requestor	Financial intermediary	Main finance source			
<b>Application Process</b>	Submit Demand Based Applications	Review / analyze the applications in order to provide information to WB.  Prepare Gümüşhacıköy Municipality's subproject documents in accordance with WB requirements,	Concur the final selection of eight participating municipalities.			
<b>Preparation Process</b>	Welcome and apply the relevant laws and regulations that are introduced by WB through ILBANK	Coordinate the selected municipalities to ensure all the relevant rules and regulations will be adopted throughout the project.  Organize internal working structure for the investment options.  Although the project site is in the low risk category, in case of need, Gümüşhacıköy Municipality officials and consultants are guided on WB requirements (documents and procedures) regarding impact factors such as cultural assets, land acquisition and involuntary settlement, natural habitats, forests and	Assist ILBANK in Developing Performance and Monitoring Database system during the preparation phase.  Provide technical guide for ILBANK.  Implementation and inspection of the ESMP of the subproject and development of recommendations	Ensure compliance with all requirements of the ESMF and management plans.  Ensure conformity with project standards and obtaining all relevant permits and licenses	Identify and managing environmental, social, and OHS-related risks	Preparing Environmental and Social Assessment Reports, i.e., ESMF and Resettlement Action Plans (and, if necessary, RAP/LRP), for approval by ILBANK and the World Bank.



<b>Number of Staff</b>	One Social and One Environmental Expert , OHS Expert	In addition to present team, a support team can be established. Structure of the team and qualification of team members will be defined by ILBANK and WB. Individual freelance consultants can be employed.	Assist ILBANK in establishing monitoring team.		Employe competent Environmental, Social, and OHS Experts (at least one Social Expert, one Environmental Expert, and one OHS Expert) within the scope of the project	
<b>Project Roles</b>	Preparation of, ESMP and Grievance Mechanism	The main responsible for monitoring, ESMP and Grievance Mechanism  Provide written comments to consultants	Overall review of the project development stages		Draft time-bound action plans for the contractor in case of non-compliance	
	Tendering all the project works and consulting services	Supervise and monitor the whole process to ensure the proper application of the WB's environmental and social safeguard policies are applied.	Review of incoming reports to see the Bank standards are in progress.  Recommend additional measures to strengthen the management framework and improve implementation performance.			
<b>Disclosure Roles</b>	Disclose ESMP on the official website of municipalities after approval of ILBANK and WB	Confirm and Disclose the ESMP on ILBANK's official website  Disclosure of official approval of environmental and social assessment documents and related procedures for the project in accordance with WB safeguarding requirements, to perform the overall quality	Confirm and Disclose the ESMP on WB's official website			

		assurance function to ensure that EA documents meet WB requirements				
<b>Construction Phase Responsibilities</b>	Prepare tender documents for the construction process.	Obtaining the opinions of affected groups and local environmental/social experts on the environmental and social aspects of the project implementation and organizing field visits with these groups when necessary	Visit project sites from time to time, when necessary, as part of the project	Implement all commitments determined by Gümüşhacıköy Municipality.	Guide Gümüşhacıköy Municipality officials and consultants in the implementation of World Bank requirements (documents and procedures) in the E&S framework after approval by Gümüşhacıköy Municipality	
	Conduct tenders in accordance with public procurement legislation and WB legal requirements.	Coordinating and communicating with WB inspection officers regarding the environmental and social protection measures of the project implementation in organizing field visits.		Supervise the construction and/or rehabilitation works and installation of equipment	Ensure the provision of sufficient capacity to carry out C&S audits effectively in accordance with ESMF requirements when the implementation of mitigating measures by the Contractor is deemed necessary	
	Share the ESMP with the Contractor, guide the Contractor in preparing sub-management plans, and approve these plans.					
	Update the ESMP when necessary and share additional commitments with the Contractor.					
	Coordinate actions and evaluations in case of					

	changes due to engineering/design changes, route/location changes, legislative changes related to environmental and social issues, authorization provision changes, new environmental/social data, construction/operation strategy changes.					
<b>Monitoring Roles</b>	Evaluate performance indicators, environmental reviews, monitoring, inspections, and results related to ESMP applications.	Monitoring the implementation of ESMP and other environmental and social mitigation measures, auditing Gümüşhacıköy Municipality's ESMP implementations and documenting performance, recommendations, and other necessary steps within the scope of overall project supervision	Oversee the project in accordance with WB Safeguard Policies and provide technical support and guidance	Monitor construction activities (including subcontractor activities) and taking and implementing measures within the scope of the ESMF	Report environmental audits, monitoring, and inspections related to E&S practices to Gümüşhacıköy Municipality.	
	Prepare Environmental and Social Monitoring Reports (ESMRs) every three months, submit them to ILBANK, and inform them.	Inform WB through Environmental and Social Monitoring Reports (ESMRs) to be submitted by Gümüşhacıköy Municipality every three months.		Submit Monthly Environmental and Social Monitoring Reports (ESMRs) to the Project Owner Municipality	Monitor and evaluate the performance of services provided by the contractor	
	Monitor contractor activities.	Submit Project Progress Reports to WB every 6 months.			Ensure regular (monthly) reporting of the Contractor's C&S performance to the Municipality and ILBANK	
<b>Training Responsibilities</b>	Provide necessary training on Environmental and				Provide necessary environmental and	

	Social Management issues to Project Management Unit (ILBANK) and relevant directorates.				social training to the contractor and subcontractor personnel	
<b>Urgent Action Roles</b>	Ensure compliance with project standards and take urgent actions in case of non-compliance.			Promptly notifying the Project Owner of unexpected situations, such as environmental, social, and occupational issues or accidents, incidents, or time loss, and maintaining an on-site incident log throughout the project lifespan. An incident report, including root cause analysis and corrective actions needed, will be submitted to ILBANK and the World Bank within 30 days.	Ensure the tracking and analysis of environmental and social incidents	
	Halt work in any situation threatening the environment, community, and occupational health and safety.				notify ILBANK and the Gümüşhacıköy Municipality, exercising the contract authority in case non-compliance persists	
	Analyze and monitor environmental and social accidents/incidents.					
<b>Stakeholder participation Roles</b>	Ensure stakeholder participation, implement the grievance mechanism, and ensure continuous information transfer through open communication.	Provide guidance on public participation and announcement requirements when necessary			Provide guidance on public participation and announcement requirements in accordance with World Bank requirements	Taking part in organizing the introduction ESMP to the public and NGOs within the scope of the project and stakeholder

						engagement events
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## Annex 2: Environmental and Social Screening Checklist

This checklist is used by executing agency to review the potential environmental and social safeguard impacts of subprojects and determine whether the subprojects will trigger relevant safeguard policies of World Bank. It is a tool to screen, classify and evaluate the project activities during project preparation.

### Integrating Basic Principles to Strengthen Social and Environmental Sustainability

<b>1. Determination of Basic Principles to Strengthen Project, Social and Environmental Sustainability</b>
<b>Description of how the project mainstreams a human rights-based approach</b>
<p>The SPP Sub-project will be constructed over the Gümüşhacıköy Bazaar rooftop. During the preparation phase, no human rights concerns related to the project have arisen. A credit application has been submitted for the project, and once the credit application is approved, the implementation process will commence. With the initiation of the project, stakeholder engagement processes and complaint procedures will be initiated. These processes will be subject to a monitoring mechanism. Opinions obtained during this process will be reviewed at specific intervals and resolved.</p> <p>The responsible organization leading the implementation of the project, Gümüşhacıköy Municipality, is highly willing to fulfill its obligations. The SPP sub project is a sustainable and clean energy resource and provides environmental sustainability in the project area and reduces dependence on fossil fuels. One of the fundamental reasons for the solar power plant project is the use of clean energy to meet the district's electric energy need. The plant will meet the energy of more than 684 households with 821.352,00 kWh of electrical energy production, save the municipality more than 1.86 million EU in energy costs within 30 years and prevent the release of more than 174,4 tons of CO<sub>2</sub> per year into the atmosphere. Therefore, there is no risk of local governments not fulfilling their responsibilities due to the reduction in energy costs and the potential contributions it will bring to various sectors.</p> <p>In the conducted assessments, it has been observed that there will be no adverse impact on the human rights of the affected population or marginalized groups. The SPP project is designed to meet the electric energy needs of the district. Therefore, there will be no unjust or discriminatory effects on disadvantaged groups within the population residing in the vicinity. The utilization of renewable energy to meet the energy requirements will enable the efficient use of municipal resources, generating positive effects for the entire district population. This approach fosters equal distribution of local government resources and services among the entire population, promoting inclusivity. Additionally, there is no identified risk of conflict or violence among the communities and authorities affected by the project.</p>
<b>Description of how the project can improve gender equality and women's empowerment</b>
<p>Women's groups have not raised gender equality concerns regarding the project during the stakeholder engagement process, grievance processes, or public statements. The project is not anticipated to involve or lead to adverse impacts on gender equality and/or the situation of women and girls. The project is not expected to reproduce discrimination against women based on gender, particularly regarding participation in design and implementation or access to opportunities and benefits. There are no foreseen limitations on women's ability to use, develop, and protect natural resources, considering the different roles and positions of women and men in accessing environmental goods and services. There are no activities that could lead to natural resources degradation or depletion in communities that depend on these resources for their livelihoods and well-being. The project is not expected to exacerbate risks of gender-based violence.</p>
<b>Description of how the project mainstreams sustainability and resilience</b>
<p>By harnessing solar energy, the project reduces dependence on non-renewable fossil fuels, contributing to a more sustainable energy mix and reducing greenhouse gas emissions. Solar power projects typically have a lower environmental impact compared to traditional energy sources. They help mitigate air and water pollution, reduce carbon emissions, and minimize the ecological footprint associated with energy generation.</p> <p>Solar power projects contribute to energy resilience by providing a stable and predictable source of energy. This can be especially important for urban areas, ensuring a more stable energy supply and helping to mitigate the impact of energy price volatility. Incorporating solar power into the urban energy mix contributes to the diversification of energy sources. This diversification enhances energy security, making the urban area less vulnerable to disruptions in the supply chain of any single energy source. This involves using technology to optimize energy production, storage, and distribution, creating more efficient and resilient energy systems. By reducing reliance on fossil fuels, solar power projects contribute to mitigating climate change impacts.</p> <p>By utilizing renewable solar power in electric energy generation, the project aims to reduce the municipality's electricity expenses. This financial benefit enhances the economic sustainability of the local government.</p> <p>Renewable energy investments empower communities by providing them with opportunities for potentially creating jobs, thereby enhancing the social dimension of sustainability. This contributes to economic sustainability by fostering employment opportunities and skill development within the community. It would facilitate income diversification by offering opportunities</p>

for local businesses, such as maintenance services, security, and other support functions. With the increasing number of renewable energy implementations, there is the potential to promote the use of clean energy in various sectors. The project has training activities for stakeholders and the responsible. This educational aspect contributes to the long-term sustainability of the region by raising awareness and promoting environmentally conscious behaviors.

**Description of how the project strengthens accountability to stakeholders**

The project strengthens accountability to stakeholders through transparent decision-making, active engagement, accessible information, responsive grievance mechanisms, regular reporting, clear communication, measurable performance indicators, and inclusive decision-making processes.

The project promotes transparency by involving stakeholders in the decision-making process. Through open communication and consultation, stakeholders are informed about project objectives, progress, and potential impacts. This transparency would enhance accountability by ensuring that decisions are made collectively and with the input of relevant stakeholders.

The project would facilitate regular stakeholder engagement activities such as meeting, workshops, etc., providing a platform for dialogue between the implementing entities and stakeholders. These activities allow stakeholders to express concerns, provide feedback, and actively participate in shaping project outcomes. Regular engagement fosters a sense of ownership and accountability among stakeholders. In doing so, the project ensures that relevant information is easily accessible to stakeholders. This includes providing updates, reports, and documentation related to the project's environmental, social, and economic aspects. Accessible information empowers stakeholders to make informed decisions and holds project implementers accountable for the project's overall impact.

A robust grievance mechanism is established to address concerns raised by stakeholders. This mechanism allows stakeholders to report issues, express grievances, and seek resolution. The responsiveness of the grievance mechanism demonstrates a commitment to accountability by addressing concerns in a timely and effective manner.

The project engages in regular reporting and audits, providing stakeholders with detailed insights into project activities and outcomes. Regular reporting ensures accountability by keeping stakeholders informed about the project's adherence to sustainability goals, financial management, and overall performance.

The project defines and conveys measurable performance indicators, allowing stakeholders to assess the project's success against predetermined benchmarks. This transparency in performance evaluation enhances accountability by providing stakeholders with objective criteria to gauge the project's impact.

Involving stakeholders in decision-making processes ensures inclusivity and accountability. By considering diverse perspectives, the project strengthens its commitment to meeting the needs and expectations of all stakeholders, fostering a sense of shared responsibility.







## Identifying and Managing Social and Environmental Risks

	2. The Potential Social and Environmental Risks?	3. The level of significance of the potential social and environmental risks?			6. Description of the assessment and management measures for each risk rated Moderate, Substantial or High
Risk Topic	Risk Description (broken down by event, cause, impact)	Impact and Likelihood (1-5)	Significance (Low, Moderate Substantial, High)	Comments (optional)	Description of assessment and management measures for risks rated as Moderate, Substantial or High
Noise Pollution	Risk 1: Noise Resulting from Temporary Traffic Load Noise Caused by Construction Vehicles and Equipment Blasting, Stone, and Rock Removal Vibration Effects	Constructional Phase I = 2 L = 2	<b>Low</b>		During construction, the road near the area will be actively used. There are residential areas on the parcels around the market area where the project will be built. Transportation to the project area will be provided by highway. For the subproject area in Gümüşhacıköy, it is possible that impacts that will harm human health and the environment will occur during the construction phase. However, the construction period is quite short due to the characteristics of SPP. Measures have been developed for the short construction process. By implementing the measures, the impacts will be minimized.
		Operational Phase I = 0 L = 0	<b>Low</b>		The construction work is expected to be completed in a very short time. The potential impact of this risk was assessed as extremely low, given that it would not cause long-term noise pollution.

Air Pollution	Risk 2: Dust and Exhaust Emissions from Soil Excavation, Vehicle Traffic and Equipment	Constructional Phase I = 2 L = 2	<b>Low</b>		During the construction phase, temporary exhaust and dust emissions are likely to occur due to activities such as leveling works, vehicle traffic and equipment use. Since the power plant installation is expected to be completed quickly, it is evaluated that the impact level will be low.
		Operational Phase I = 0 L = 0	<b>Low</b>		After the completion of the construction phase of the power plant and its commissioning, no activities that will cause air pollution are foreseen.
Traffic Congestion & Surrounding Residents	Risk 3: Temporary Blockage of Transportation Roads between Settlements Traffic Vehicles Cause Destruction on Roads and Buildings	Constructional Phase I = 2 L = 2	<b>Low</b>		Traffic load will increase during the construction phase. Due to the increasing traffic load, especially with the use of heavy tonnage vehicles, road surface improvements become mandatory during the construction phase.
		Operational Phase I = 0 L = 0	<b>Low</b>		Heavy tonnage vehicles will not be used during the operation phase.
Pollution in Groundwater	Risk 4: Chemical Spills and Leaks Improper Storage and Disposal of Materials	Constructional Phase I = 0 L = 0	<b>Low</b>		Since the SPP project will be constructed in the rooftop of marketplace, there will be no risk of groundwater pollution.
		Operational Phase I = 0 L = 0	<b>Low</b>		There is no risk about chemical spills and leaks, improper storage and disposal of materials during the operation phase.
Natural Disaster	Risk 5: Earthquake Risk.	Construction Phase I = 4 L = 1	<b>Low</b>		Amasya is located in the active fault line region and 1 <sup>st</sup> degree earthquake zone, and Gümüşhacıköy district is located 1 <sup>st</sup> degree earthquake zone, but there is no active fault line in the district center and SPP Sub-project area(Figure 8).For this reason, the construction must be

					carried out in accordance with the earthquake risk, taking into account active faults, and the relevant regulations must be complied with.
		Operational Phase I=1 L=3	<b>Low</b>		Equipment must be well secured in a safe position.
Natural Disaster	Risk 6: Possibility of floods due to excessive rainfall	Construction Phase I = 2 L=2	<b>Low</b>		Gümüşhacıköy district is not located in a flood risk area. When the SPP Sub-project area is examined, flood sensitivity of the project area is low degree (Figure 10).
		Operational Phase I=1 L=1	<b>Low</b>		Since mitigation measures will be implemented against flood risk during the construction phase, the flood risk will be reduced during the operation period.
Natural Disaster	Risk 7: Landslide Risk	Construction Phase I = 1 L=1	<b>Low</b>		Gümüşhacıköy district's landslide risk changes low and high degree due to its topographic structure. The SPP sub-project area is located in the low level of risk area, and there is no landslide observed near the SPP sub-project area.
		Operational Phase I = 1 L=1	<b>Low</b>		Since the SPP project will be constructed on the rooftop of the marketplace and the landslide risk of the project area is low, there is minimal risk of landslide. Regular inspections of the building structure and surrounding area will be carried out to monitor for signs of ground movement or instability.
Reflection and Glare Effect	Risk 8: Reflection and Glare Effect	Constructional Phase I = 1 L=1	<b>Low</b>	Reflection and glare effect are an effect created by solar power plants (SPP). This effect occurs as a result of reflection or glare from	During the construction phase, the level of glare and reflection effects is quite low. During the operation phase, this impact level is higher compared to the construction phase due to the complete installation and operation of the panels.

		Operational Phase I=3 L=3	<b>Moderate</b>	sunlight on photovoltaic panels or from a bright sky. The severity of reflection and glare effects may vary depending on the time of year and the geographical location of the power plant. Additionally, impact significance may vary depending on potential receptor points (settlements in the impact area, transportation routes, airports, etc.). Since photovoltaic panels absorb sunlight, the reflection and glare effects in PV type systems are generally lower than in systems using other solar energy technologies.	Since the project area is located in residential areas, there will be reflection and glare effect. After determining the area with reflection risk in the Solar Power Plant area, visual monitoring should be carried out in the first year of operation to observe the reflection and glare effects.
Workforce and OHS	Risk 9: Effects on Workforce and OHS	Constructional Phase I = 4 L=1	<b>Low</b>		The number of personnel needed during the construction phase will be higher than during the operation phase. The factors that threaten occupational health are slightly more than the operational phase. Measures have been developed in accordance with the relevant regulations due to national and international legal frameworks.

		Operational Phase I = 3 L=1	<b>Low</b>		Since only maintenance and repair activities will be carried out during the operation phase, the number of working personnel is low and occupational health and safety risks are lower. Measures have been developed in accordance with the relevant regulations due to national and international legal frameworks
Community Health and Safety	Risk 10: Community health and safety during the execution of works	Constructional Phase I= 2 L= 2	<b>Low</b>		Warning signs will be placed in the construction zone to inform the public about the issues to be considered during construction. The risk will be low by taking measures such as temporary barriers and safety lanes and because the construction phase of the project will not last very long.
		Operational Phase I = 0 L =0	<b>Low</b>		There is no risk to community health and safety during the operational phase.
Storage of Damaged or End of Lifecycle Panels	Risk 11: Storage of Damaged or End of Lifecycle Panels	Constructional Phase I=0 L=0	<b>Low</b>		There is no risk during the construction phase.

		Operational Phase I=2 L=2	<b>Low</b>		Secured areas on-site specifically designated for the temporary storage of damaged or end-of-lifecycle panels will be established. Develop a recycling plan. Develop a recycling plan in collaboration with certified recycling facilities to ensure environmentally responsible disposal of panels.
--	--	---------------------------------	------------	--	--



#### 4. The overall project risk categorization?

Low Risk	<input type="checkbox"/>	Category C
Moderate Risk	<input checked="" type="checkbox"/>	Category Low B
Substantial Risk	<input type="checkbox"/>	Category High B
High Risk	<input type="checkbox"/>	Category A

#### 5. The requirements of the SES based on the identified risks and risk categorization

Only required for Moderate, Substantial and High-Risk projects

Is assessment required? (check if "yes")			Status? (completed, planned)
if yes, indicate overall type and status	<input type="checkbox"/>	Targeted assessment(s)	Since the project is Category Low B, these assessments are not required.
	<input type="checkbox"/>	(Environmental and Social Impact Assessment)	
	<input type="checkbox"/>	SESA (Strategic Environmental and Social Assessment)	
Are management plans required? (check if "yes")			
If yes, indicate overall type	<input type="checkbox"/>	Targeted management plans (e.g. Gender Action Plan, Emergency Response Plan, Waste Management Plan, others)	Since the project is moderate risk, these management plans are not required. However, in the cope of SCP II AF, <b>Simplified ESMP</b> has been prepared for this project with low risk.
	<input checked="" type="checkbox"/>	ESMP (Environmental and Social Management Plan which may include range of targeted plans)	
	<input type="checkbox"/>	ESMF (Environmental and Social Management Framework)	
Based on identified risks, which Principles/Project-level Standards triggered?		<b>Comments (not required)</b>	
Overarching Principle: Leave No One Behind			
Human Rights	<input checked="" type="checkbox"/>		
Gender Equality and Women's Empowerment	<input checked="" type="checkbox"/>		
Accountability	<input checked="" type="checkbox"/>		
The Environmental and Social Standards of World Bank (ESS)			

1. Biodiversity Conservation and Sustainable Management of Living Natural Resources	<input checked="" type="checkbox"/>	
2. Assessment and Management of Environmental and Social Risks and Impacts	<input checked="" type="checkbox"/>	
3. Community Health, Safety and Security	<input checked="" type="checkbox"/>	
4. Cultural Heritage	<input checked="" type="checkbox"/>	
5. Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	<input type="checkbox"/>	
6. Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	<input type="checkbox"/>	
7. Labor and Working Conditions	<input checked="" type="checkbox"/>	
8. Resource Efficiency and Pollution Prevention and Management	<input checked="" type="checkbox"/>	
9. Financial Intermediaries	<input checked="" type="checkbox"/>	
10. Stakeholder Engagement and Information Disclosure	<input checked="" type="checkbox"/>	

## Environmental Screening Checklist

Sub-project Information	
Sub-project title	Gümüşhacıköy Municipality SPP Subproject
Sub-project beneficiaries	Gümüşhacıköy Municipality
Proposed date of start of work	
Brief description of sub-project	One of the main justifications of the SPP sub-project is to use clean energy to meet the electric energy need of district.
Site area, location	Amasya, Gümüşhacıköy, Artıkabat, Block 361 of Lot 7-9
Sub-project cost	EU 375.600,00
Status of national EIA process of sub-project	The sub-project area is exempted from EIA regulation Process because there is no EIA process for rooftop project.

<b>Environmental and social impacts related to the proposed sub-project – the existing situation</b>			
	<b>Yes</b>	<b>No</b>	<b>Details</b>
Will the sub-project adversely affect legally protected areas or internationally recognized areas of high biodiversity value <sup>2</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The sub-project will not affect any protected areas or internationally recognized areas of high biodiversity value, since there is no such areas around the-project area.
Will the sub-project be located in or near the environmentally sensitive or protected area (in accordance with national legislation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The sub-project will not be located in or near the environmentally sensitive or protected area (in accordance with national legislation), since there is no such areas around the-project area.
Will the sub-project adversely affect critical habitats such as forest ecosystems, wetlands, marshlands, and aquatic ecosystems or natural habitats?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no habitat with high sensitivity around the subproject area.
Will the sub-project adversely affect endangered plant and animal species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no endangered flora or fauna species in or near the area.
Will the sub-project affect archaeological sites, historic monuments and settlements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no negative impact on any historical assets located near the project.
Is there woods or forest around the sub-project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no forest in the subproject area.
Will the sub-project adversely affect the woods and forest?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Since There is no wood or forest area in the subproject area, it will not affect adversely any woods or forest.
Is there any combustible and flammable subsidence material around the sub-project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No, there is not any combustible and flammable subsidence material around the sub-project area.
Is there underground facilities such as gas pipeline, electrical facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No, there is not underground facilities such as gas pipeline, electrical facilities
Are there any overhead lines such as high-voltage lines in or near the sub-project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No, there is not any overhead lines such as high-voltage lines in or near the sub-project area
Will people permanently or temporarily lose access to facilities, services, or natural resources because of the sub-project activities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No, local people will not be affected by losing access to facilities, services, or natural resources because if the sub-project activities.
Is this sub-project intervention requiring private land acquisitions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The property is allocated for the municipality.
If the land parcel has to be acquired, is the actual plot size and ownership status known?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-

<sup>2</sup> Internationally recognized areas of high biodiversity value include World Heritage Natural Sites, Biosphere Reserves, Ramsar Wetlands of International Importance, Key Biodiversity Areas, Important Bird Areas, and Alliance for Zero Extinction Sites, among others.

If new land is required and the site is privately owned, can this land be purchased through Willing Buyer–Willing Seller agreement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Will the sub-project require the acquisition of public lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
If public lands will be acquired, are there any formal/informal users utilizing these lands for income generation purposes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Will there be loss of/damage to productive trees, fruit plants or crops that generate livelihood income for the households?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no productive trees, fruit plants or crops in the land where the SPP subproject will be built
Is there any soil contamination observed at the sub-project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Currently, no soil contamination observed, but monitoring measure will be applied to control over.

Impacts of sub-project (in case of rooftop solar sub-project only):			
Will the sub-project affect the daily operation of the building and people?			
Is the building protected under the law for the protection of cultural heritage?			
Is the building of special significance to any vulnerable group (i.e. disabled people, minorities, youth, etc.)?			

Environmental and social/impacts related to sub-project construction/installation			
	Yes	No	Details
Will the sub-project involve the use of forest trees or other natural resources as building materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The sub-project does not involve the use of forest trees or other natural resources as building materials.
Will the sub-project emit greenhouse gases (CO <sub>2</sub> , NO <sub>x</sub> , O <sub>3</sub> ) or ozone-depleting substances (CFC, methyl bromide, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The sub-project will not emit greenhouse gases
Will the sub-project use, produce, or discharge hazardous and toxic materials (e.g., hospital waste, industrial waste, or other?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Will the sub-project produce or cause occupational hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Related measures are planned in this ESMP, and they will be taken into consideration
Will the sub-project cause dust and noise pollution?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The sub-project would cause dust and noise only in construction phase. Measures related to this issue has been developed in this ESMP. In the operational phase there will be no dust and noise.
Will the sub-project cause water pollution?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Will the sub-project cause soil pollution?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Will the sub-project result in temporary disruption to the livelihoods of any persons/households?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Will the sub-project cause community safety-related hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-

Will the sub-project include significant OHS concerns?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Related measures are planned in this ESMP, and they will be taken into consideration
Will the sub-project cause additional traffic load?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The sub-project would cause traffic load in construction phase. In operational phase there will be no traffic load originated from the sub-project.
Will the sub-project cause any adverse impact on the closest sensitive receptors (if there is any)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Is there a population that can be negatively affected by the sub-project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No population in the lot where subproject will be built
Other environmental or social impacts (describe the nature and severity of its impact)	<u>Preparatory phase:</u> <u>Construction phase:</u> <u>Operation phase:</u>		

According to OP4.01, OP 4.10 and OP 4.12 of World Bank, the following social safeguard documents shall be prepared for the subproject:

1. According to the Environmental screening checklist above the subproject is in Category low B in terms of risk. and recommendations of World Banks that is Category low B project does not need environmental management plan and does not need to take environmental protection measures to mitigate the impact, however, in any situation, a simplified ESMP has been prepared. In this regard, it reveals that the World Bank has not triggered the relevant safeguards policies, except for this simplified ESMP.
2. According to the social screening checklist above, there is no reason to trigger World Bank Social Safeguard Documents such as Resettlement Action Plan, Reemployment Plan, Job Transfer Training.



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## **SUSTAINABLE CITIES PROJECT-II Additional Financing**

**GÜMÜŞHACIKÖY SOLAR POWER PLANT PROJECT**

**MINUTES of PUBLIC CONSULTATION MEETING**

*Revision* : REV.00

*Meeting Date* : 18 Dec 2024

*Meeting Place*: Gümüşhacıköy Municipality Meeting Hall



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## 1. PUBLIC CONSULTATION MEETING

**Gümüşhacıköy Solar Power Project** which will be financed under SCP-II-AF is one of the sub-projects to support sustainable development.

The Environmental and Social Management Plan (ESMP) has been prepared in accordance with Turkish environmental and social legislation, World Bank Safeguard Policies including Operational Policies (OPs), World Bank General EHS Guidelines and Industrial Sector Guidelines and İLBANK'S ESMP. In addition to these studies, a Public Consultation Meeting was held on 18.12.2024 at 10.00 a.m. following the completion of the ESMP. Public Consultation Meeting announcements were published on the official website and in national and local newspapers. In addition, brochures regarding the meeting were hung in the neighborhood mukhtar's offices and on bulletin boards.

### 1.1. Summary

During the Public Consultation Meeting, information about the project was presented by municipal officials and the consultancy firm. The details are as follows:

The Mayor of Gümüşhacıköy Municipality delivered the opening speech of the meeting, providing general information about the project. Subsequently, the importance of the Gümüşhacıköy Solar Power Plant (GES) project was explained by the Ardea Project Consultancy Team. It was stated that the project is financed under the Sustainable Cities Project II Additional Financing by the World Bank and represents an important step for the municipality in terms of renewable energy and combating climate change. It was explained that through the solar power plant project, the municipality would cover a significant portion of its energy costs by using clean energy. The project is planned to be completed within five months and is expected to contribute socially to the district.

The project was introduced through a presentation by the Ardea Project Consultancy Team, which also provided information on the project's Environmental and Social Management Plan (ESMP). The location of the roof where the project will be installed, and other technical details were explained. It was stated that Gümüşhacıköy district is suitable for a solar energy project due to its solar potential. Within the scope of the ESMP, the environmental and social risks of the project were evaluated, and an analysis of the current situation was conducted. The roof location, climatic conditions of the region, solar radiation duration, natural and cultural values, and risks such as earthquakes were analyzed and explained. It was noted that the project could create opportunities for local residents in the future and that the use of renewable energy sources is crucial in combating climate change. The project is expected to provide social benefits and is described as an important step for Gümüşhacıköy and an exemplary initiative for the future.

Lastly, it was highlighted that the grievance mechanism will be given importance during the construction and operational phases of the project.

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## 1.2. Question & Answer Session

In this sub-section, the opinions, requests, and questions of the participants and the relevant answers received during the Public Consultation Meeting have been presented. The details are as follows:

### **Question 1: Gümüşhacıköy Resident**

How much of the district's electricity needs will be met by the electricity produced by the solar power plant?

### **Answer 1: Gümüşhacıköy Municipality Mayor**

The project will produce enough electricity to meet the annual needs of approximately 650 households. This will not only reduce electricity bills but also have a significant impact on the district's development due to reduced energy costs and the potential contributions this brings to various sectors.

### **Question 2: Gümüşhacıköy Resident**

Will there be inspections on-site during the construction phase?

### **Answer 2: Representative from the Consulting Firm (Ardea Project & Consultancy)**

Inspection activities will, of course, be conducted during the construction and operation phases of the projects, and the necessary measures outlined in the Environmental and Social Management Plan (ESMP) will be followed. These inspections will also be carried out by municipality.

### **Question 3: Gümüşhacıköy Resident**

Will the operating costs of the solar power plant be high after the project is completed?

### **Answer 3: Representative from the Consulting Firm (Ardea Project & Consultancy)**

SPP projects are systems with very low operating costs. Other than cleaning and regular maintenance, they do not require significant expenses. The energy produced is expected to not only cover costs but also provide income to the municipality in the long term.

### **Question 4: Gümüşhacıköy Resident**

What kind of economic benefits can the solar power plant project bring to the district in the long term?

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#### **Answer 4: Gümüřhacıköy Municipality Mayor**

The SPP project will not only reduce energy costs but also generate income for the municipality in the long term, enabling the implementation of other projects in the district. Additionally, such projects can increase Gümüřhacıköy recognition in the renewable energy sector and attract new investors to the region.

### **1.3 Conclusion**

The Public Consultation Meeting lasted approximately 45 minutes with 21 people, with the participation of the public, municipality personnel and consultant company officials providing information about the project, and a question and answer session held afterwards. The necessary information was provided to the public about the SPP project, the public's questions were answered, and the next process was explained.





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## 2. PARTICIPANT LIST

Figure 1: Participants Signature List

HALKIN KATILIMI TOPLANTISI KATILIMCI LİSTESİ					
Toplantı Konusu: SŞP-II EF Gümüşhacıköy Belediyesi (Amasya) Güneş Enerji Santrali Projesi Halkın Katılımı Toplantısı					
Toplantı Yeri / Tarihi: Gümüşhacıköy Belediyesi Belediye Meclis Salonu				18.12.2024 - 10:00	
Katılımcılar:	İsim-Soy İsim	Meslek	Temsil Ettiği Kurum / Yerleşim Yeri	Telefon	İmza
1		Belediye Başkanı	Gümüşhacıköy Belediyesi		
2		Yazı İşleri Müdürü	Arıkabat Mahallesi		
3		Yazı İşleri Müdürü	"		
4		Fen İşleri Müdürü	Gümüşhacıköy Belediyesi		
5		Memur	Sarıyay Mahallesi		
6		Harita Mühendisi	Arıkabat Mahallesi		
7		Yatırımcı	Arıkabat Mahallesi		
8		Belediye Başkanı	Gümüşhacıköy Belediyesi		
9		Yatırımcı	Sarıyay Mahallesi		
10		Yatırımcı	Horozlar Mahallesi		
11		Sevdiye Başkan Yardımcısı	Arıkabat Mahallesi		
12		Memur	Arıkabat Mahallesi		
13		Mühendis	Harıyay Mahallesi		
14		Memur	Arıkabat Mahallesi		
15		Yatırımcı	Adaköy Mahallesi		
16		Yatırımcı	Harıyay Mahallesi		

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17		İSGİ	Artıkabet mecl.	
18		Yokluk	Hacıhıya mah.	
19		İSGİ	Hacıhıya mah.	
20		Basın meclisi	Artıkabet	
21		Esnaflık	Artıkabet	
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### 3. ANNEXES

#### Annex 1: Photos of Public Consultation Meetings

Figure 2: Photos of Meetings-1



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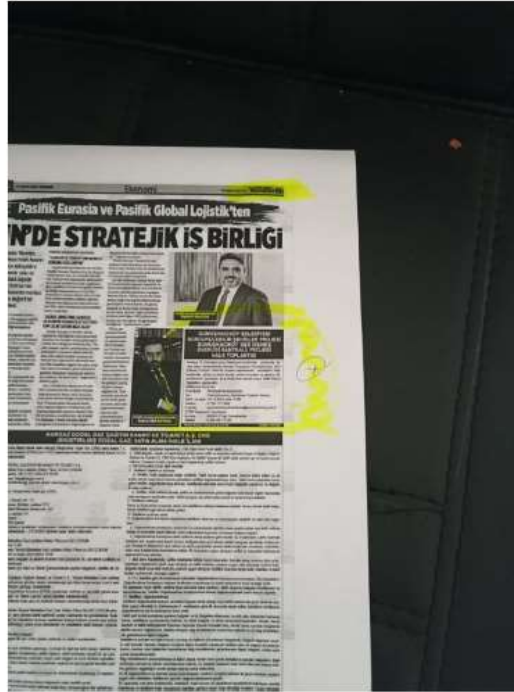




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## Annex 2: Newspaper Advertisements

Figure 3: Yenibirlik Newspaper Advertisement for Public Consultation Meetings of Gümüşhacıköy SPP



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Figure 4: Gümüşhacıköy Haber Newspaper for Advertisement for Public Consultation Meetings of Gümüşhacıköy SPP



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## Annex 3: Documents and Announcements regarding ESMP and Public Consultation Meeting Published in the Official Website of Gümüşhacıköy Municipality

Figure 5: Public Consultation Meeting Brochure and ESMP Documents Published on the Official Website of Gümüşhacıköy Municipality

The screenshot displays the official website of Gümüşhacıköy Municipality. The header includes the municipality's name, logo, and contact information. The main content area features a section titled "Gümüşhacıköy GES (Güneş Enerjisi Santrali) Projesi". Below the title, there is a link to a PDF document: [/Upload/files/G%C3%BCm%C3%BC%C5%BFhac%C4%B0%C3%B5y\\_CSYP\\_2112024.pdf](#). The text describes the project's goal to support sustainable energy use in cities, improve energy sources, and reduce climate change impacts. It also mentions the project's location and the involvement of the World Bank and the Ministry of Environment, Urbanization and Climate Change.

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## Annex 4: Gümüşhacıköy Municipality Public Consultation Meeting Brochure

<p>Ayrıca ÇSYP kapsamında uygulanacak izleme ve denetim faaliyetleri de tanımlanacaktır. ÇSYP çalışmalarında hava ortamları, gürültü, koku, biriken atıklar, projenin kurulacağı alana dair var olan doğal afet riskleri, GES kaynaklı yaşanabilecek yanama ve patlama gibi etkiler belirlenip ilgili konuların sakınım azaltma önlemleri belirtilecektir.</p> <p>İzleme gereklilikleri de ÇSYP kapsamındaki izleme tablolarında tanımlanarak sunulacaktır. Buna göre projenin inşaat aşamasında, toz emisyonları, hava kirliliği, inşaat sırasında ve geçici trafik yükünden oluşacak gürültü, atık üretimi, iş sağlığı ve güvenliği; işletme aşamasında ise kimyasalları depolanması ve kullanımı, santralin yanama ve patlama etkisi, geçim kaynakları , şikayetler, topluluk çalışmaları , paydaş katılımı , iş sağlığı ve güvenliği ve işgücü parametreleri ÇSYP'de belirlenen şartlara uygun izlenecektir.</p> <p>Bu Çevresel ve Sosyal Yönetim Planı (ÇSYP)'nin uygulanmasından sorumlu ana kurum, projenin inşaatından ve işletme aşamalarından da sorumlu olan Gümüşhacıköy Belediyesi'dir. Projenin farklı aşamalarında çeşitli taraflar (Yükleniciler, Müşavir firma, Proje Uygulama Birimi, İLBANK vb.) ÇSYP kapsamında çeşitli konularda sorumluluk alacaklardır. Sözü edilen tüm çalışmalar Gümüşhacıköy Belediyesi tarafından koordine edilecektir. Proje dokümanları Gümüşhacıköy Belediyesi'nin internet sitesi üzerinden yayınlanacak ve talep edilmesi halinde bu dokümanlar Gümüşhacıköy Belediyesi tarafından paylaşılacaktır.</p>	<p>Gümüşhacıköy Belediyesi, projeden etkilenebilecek topluluklar için endişelerini ve şikayetlerini dinlemek, çözmek ve takip etmek amacıyla bir Şikayet Giderme Mekanizması kurmuştur.</p> <p>Tüm şikayetler, önceden belirlenmiş bir zaman çizelgesi içinde ve içeriklerine göre etkin bir şekilde alınacak, kaydedilecek ve yanıtlanacaktır.</p> <p>Şikayet Giderme Mekanizmasının kurulumu ve takibi Gümüşhacıköy Belediyesi tarafından sağlanacaktır. Bu kapsamda proje ile ilgili beklenti, görüş, öneri ve şikayetlerin paylaşılması için aşağıda verilen iletişim kanallarını da ayrıca kullanılabileceklerdir.</p> <p><b>Gümüşhacıköy Belediyesi:</b> <b>Telefon:+90 358 7171938</b> <b>E-mail: bilgi@gumushacikoy.bel.tr</b></p> <p>Tüm iç ve dış paydaşlar, proje ile ilgili şikayetlerini ve geri bildirimlerini doğrudan devlet yetkililerine iletmek için projenin tüm paydaşlarının erişimine açık ve ülke çapında kullanılan Cumhurbaşkanlığı İletişim Merkezi (CİMER) gibi alternatif şikayet mekanizmalarında da yararlanma haklarına sahip olacaklardır.</p> <ul style="list-style-type: none"><li>- Web sitesi: <a href="http://www.cimer.gov.tr">www.cimer.gov.tr</a></li><li>- Çağrı merkezi: 150</li><li>- Telefon numarası: 0312 590 20 00</li></ul>	<p><b>SÜRDÜRÜLEBİLİR ŞEHİRLER PROJESİ – II</b></p> <p><b>Gümüşhacıköy Belediyesi Güneş Enerjisi Santrali Projesi</b></p> <p><b>Halkın Katılımı Toplantısı Bilgilendirme Broşürü</b></p> <p><b>Tarih : 18.12.2024</b></p> <p><b>Saat : 10.00</b></p> <p><b>Yer :Gümüşhacıköy Belediyesi Toplantı Salonu</b></p>
5	6	1



This project is co-funded by the European Union, the Republic of Turkey and the World Bank  
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#### Gümüşhacıköy GES (Güneş Enerjisi Santrali) Projesi,

Türkiye'deki şehirlerde sürdürülebilir katkını desteklemek için Sürdürülebilir Şehirler Projesi -II Ek Finansman (SSP-II-EF) kapsamındaki alt projelerden biridir. SSP-II-EF, özellikle sürdürülebilir kentsel gelişime yatırım yapıp, yenilenebilir enerji kaynaklarının gelişmesine, afetlere ve iklim değişikliğinin hafifletilmesine ve risklere karşı şehir direncine ilişkin proje yaklaşımlarını geliştirmeyi amaçlamaktadır. Dünya Bankası (DB) tarafından finansa edilen proje İller Bankası A.Ş. aracılığı ile Gümüşhacıköy Belediyesi tarafından yürütülecektir.

**Gümüşhacıköy GES Projesi ile,** ülkenin enerji ihtiyacı karşılanmasında yenilenebilir enerji kaynaklarının payını artırmak, sera gazı emisyonlarını ve fosil yakıtlara olan bağımlılığı azaltmak ve Gümüşhacıköy İlçesinin elektrik enerji ihtiyacının karşılanması amaçlanmıştır.

**Gümüşhacıköy GES Projesi kapsamında,** kurulacak santral 30 yıllık kullanım süresi ile inşa edilecektir. Santralin kurulu gücü 626 kWp olup, yılda yaklaşık 821 MWh elektrik üretmesi beklenmektedir. Proje ile hizmet verilmesi öngörülen nüfus yaklaşık 22.121 kişidir. Proje, Amasya ili, Gümüşhacıköy İlçesi, Artıkabat Mahallesi, 361/7-9 parseli üzerinde 12.089,63 m<sup>2</sup> alana inşa edilecektir (Bkz: Şekil 1).

2

#### Projenin beklenen sonuçları aşağıdaki gibidir:

-Proje, Amasya ili, Gümüşhacıköy ilçesi, Artıkabat Mahallesi'nde yer alan ve Gümüşhacıköy belediyesine ait pazar alanının çatısına kurulacaktır. Ekstra bir kamulaştırmaya ihtiyaç duymadan ilçenin enerji ihtiyacı güneş enerji panelinden karşılanabilecektir.

- Proje, enerjide fosil yakıtlara olan bağımlılığı azaltacak ve ilçenin ekonomik olarak kalkınmasını sağlayacaktır.

-Proje, Türkiye'nin yenilenebilir enerji kaynakları sektöründe ulusal ve uluslararası kalite standartlarına uyum çabalarına katkı sağlayacaktır.

**Projenin inşaatının beş (5) ayda tamamlanması planlanmaktadır.**

**Projenin işe alım sürecinde yerel halka öncelik verilecektir.**

Proje, ulusal mevzuatın yanı sıra Dünya Bankası Koruma Politikaları, yönergeler, standartlar ve en iyi uygulama betgeleri de dahil olmak üzere, uluslararası uygulamalarla uyumlu olacaktır.

3

Proje, inşaat ve işletme aşamasında yerel halk için iş fırsatları yaratacaktır. GES projesinin kurulu güç kapasitesinin 2MW'ın altında olması nedeniyle, **inşaat çalışmalarının oldukça kısa bir zaman diliminde tamamlanabilecektir.** Yolların kapanmasından mümkün olduğunca kaçınılacak, aksine inşaat faaliyetlerinin aksamaması için bölgedeki uygun olmayan yollar iyileştirilecektir.



Şekil 1. Gümüşhacıköy GES Alt Proje Alanı


**Beklenen etkilerin yönetimi için bir Çevresel ve Sosyal Yönetim Planı (ÇSYP) geliştirilmiştir.**

ÇSYP, Projenin süresi boyunca olası çevresel ve sosyal etki ve risklerin izlenmesi, değerlendirilmesi ve önemli olumsuz çevresel etkiler için etki azaltma önlemleri önermek amacıyla hazırlanmaktadır.


4




## Annex 4: Consultation Form

		<b>GÜMÜŞHACIKÖY MUNICIPALITY</b> Gümüşhacıköy Municipality Solar Power Plant Project		
		<b>Consultation Form</b>		
Person Filling Out the Form:		Date and Time:		
Meeting Agenda:		Consultation Record No:		
<b>1. CONSULTATION INFORMATION</b>				
Interviewed Institution:		Contact Type		
Name and Surname of the Interviewee:		Telephone/Helpline <input type="checkbox"/>		
Telephone:		Face-to-face Interviews <input type="checkbox"/>		
Adress:		Website/E-mail <input type="checkbox"/>		
E-mail:		Other (Explain) <input type="checkbox"/>		
<b>Stakeholder Type</b>				
Public Institution <input type="checkbox"/>	People Affected by the Project <input type="checkbox"/>	Private Institution <input type="checkbox"/>	Professional Chamber <input type="checkbox"/>	NGO <input type="checkbox"/>
Interest Groups <input type="checkbox"/>	Industry Associations <input type="checkbox"/>	Labor Unions <input type="checkbox"/>	Media <input type="checkbox"/>	University <input type="checkbox"/>
<b>2. CONSULTATION DETAILS</b>				
Questions about the project:				
Project concerns/feedback:				
Responses to the views expressed above:				
Recording <i>Name-Surname / Signature</i>		Complainant <i>Name-Surname / Signature</i>		

## Annex 5: Grievance Form

	<b>GÜMÜŞHACIKÖY MUNICIPALITY</b> Gümüşhacıköy Municipality Solar Power Plant Project			
	<b>Grievance Form</b>			
Person Filling Out the Form:			Date and Time:	
Meeting Agenda:			Reference No:	
<b>1. INFORMATION ABOUT THE COMPLAINANT</b>				
Full Name: If the complainant requests that this grievance be processed anonymously, it will be recorded as anonymous, and the request will be fulfilled.			<b>How the Grievance Was Received</b>	
Turkish ID Number:			Telephone <input type="checkbox"/>	
Telephone:			Face to face <input type="checkbox"/>	
Address:			Website / E-mail <input type="checkbox"/>	
E-mail:			Other (Explain) <input type="checkbox"/>	
<b>Stakeholder Type</b>				
Public Institutions <input type="checkbox"/>	People Affected by the Project <input type="checkbox"/>	Private Institution <input type="checkbox"/>	Chamber of Profession <input type="checkbox"/>	NGO <input type="checkbox"/>
Interest Groups <input type="checkbox"/>	Industry Associations <input type="checkbox"/>	Labor Union <input type="checkbox"/>	Media <input type="checkbox"/>	University <input type="checkbox"/>
<b>2. DETAIL INFORMATION ABOUT GRIEVANCE</b>				
Grievance Explanation:				
Proposed Solution Method by the Complainant:				
<b>Name-Surname/Signature of the Recording Personnel</b>		<b>Name-Surname/Signature of the Complainant</b>		

Annex 6: Grievance Closure Form

	<b>GÜMÜŞHACIKÖY MUNICIPALITY</b> Gümüşhacıköy Municipality Solar Power Plant Project	
	<b>GRIEVANCE CLOSURE FORM</b>	
Reference No:		
<b>1.DETERMINATION of CORRECTIVE ACTION</b>		
1		
2		
3		
4		
5		
Responsible Departments		
<b>2.CLOSURE OF THE GRIEVANCE</b>		
<i>This section will be completed and signed by the Complainant in case the complaint specified in the "Grievance Registration Form" is resolved.</i>		
<b>Date:</b>  ...../...../.....	<b>Name-Surname/ Signature Closure of the Grievance</b>	<b>Name-Surname/Signature of the Complainant</b>

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