



Livelihood Restoration Plan

Arturna Wind Power Plant Project

PREPARED FOR

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Arturna Wind Power Plant Project

0733614

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ACRONYMS AND ABBREVIATIONS

Acronyms	Description
AoI	Area of Influence
Client	Enerjisa Üretim A.Ş. (Enerjisa Üretim)
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EMRA	Energy Market Regulatory Authority
EPRP	Emergency Preparedness and Response Plan
ES	Ecosystem Service
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
EU	European Union
GIIP	Good International Industry Practice
GIS	Geographic Information System
GM	Grievance Mechanism
ha	Hectares
HRRA	Human Rights Risk Assessment
HS	Health and Safety
HR	Human Resources
IFC	International Finance Corporation
ILO	International Labor Organization
KPIs	Key Performance Indicators
LRP	Livelihood Restoration Plan
LMP	Labour Management Plan
OHS	Occupational Health and Safety
OHSMP	Occupational Health and Safety Management Plan
PAP	Project Affected Person
PS	Performance Standard
RAP	Resettlement Action Plan
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
TMP	Traffic Management Plan
WPP	Wind Power Plant

1. INTRODUCTION

Environmental Resources Management GmbH (ERM) was contracted by Enerjisa Enerji Üretim A.Ş., (hereinafter “Enerjisa Üretim” or “the Client”) to develop this Livelihood Restoration Plan (LRP) (hereinafter “LRP” or “the Plan”) for the Arturna Wind Power Plant Project (hereinafter “the Project” or “Arturna WPP”).

The LRP has been developed in accordance with the European Bank for Reconstruction and Development (EBRD)’s Environmental and Social Policy (2024) and in particular its Environmental and Social Requirement 5 (ESR5) on Land acquisition, restrictions on land and involuntary resettlement. As the Project does not involve any physical displacement or resettlement of households, a full Resettlement Action Plan (RAP) is not required. Instead, an LRP has been prepared to specifically address economic displacement impacts, including potential losses of land-based livelihoods, access restrictions, and associated vulnerabilities.

The purpose of this LRP is to identify, assess and mitigate the adverse impacts of land acquisition and land use restrictions on people’s livelihoods, particularly in rural areas where subsistence and income-generating activities rely heavily on agricultural land, pasture, and forest resources. The Plan has been prepared based on baseline studies, stakeholder engagement, and site-specific assessments to ensure that any loss of land or access to resources is addressed through appropriate mitigation measures and livelihood support.

This LRP outlines:

- The eligibility framework for compensation and support;
- A detailed entitlement matrix covering various livelihood impacts;
- Measures for Transitional Livelihood Support (TLS), including for informal and seasonal users;
- Special provisions for vulnerable groups (e.g. female-headed, elderly, landless households);
- Strategies for training, capacity-building, and livelihood diversification;
- A budget estimate, implementation roles, and a monitoring and grievance framework.

The Arturna WPP is located in Muğla Province, Türkiye, and affects three rural settlements in its Area of Influence:

- Mazi, where land acquisition for turbine pads and the ETL corridor will result in partial economic displacement of small-scale olive farmers, informal forest users, and beekeepers;
- Gökpınar, impacted by ETL routing and potential access restrictions;
- Yeniköy, where road usage and dust from construction activities may temporarily affect cultivators and livestock keepers.

These settlements fall within the Milas District and are characterized by subsistence and semi-commercial rural livelihoods, reliant on olive cultivation, small ruminant grazing, and seasonal use of forest lands for beekeeping and foraging.

Turbine locations and associated infrastructure will involve both privately owned agricultural parcels and state-owned forest and treasury lands, some of which are used informally or communally.

1.1 OBJECTIVES OF THE LRP

The main aims of this LRP are to:

- Identify households and individuals whose livelihoods may be adversely affected by the Project's land acquisition, easement rights, or restricted access to land and natural resources.
- Assess the nature and extent of livelihood-related impacts, including those related to agricultural lands, grazing areas, forest use, and informal land-based activities.
- Propose appropriate livelihood restoration measures in line with international standards (including IFC PS5 and EBRD ESR5) and national legal requirements.
- Ensure that affected people are compensated fairly and restored, at minimum, to pre-project levels of livelihood, with special attention to vulnerable groups.

1.2 SCOPE OF THE LRP

The scope of this LRP covers:

- All Project components requiring land acquisition or access such as turbine locations, access roads, construction camps, and associated facilities (energy transmission lines;);
- Both formal and informal land users, including those without legal land titles but who may face economic displacement;
- Direct and indirect livelihood impacts, including those resulting from changes in land use, resource availability, or access restrictions;
- Coordination with ongoing environmental and social mitigation efforts described in the Project's Environmental and Social Impact Assessment (ESIA).

1.3 KEY DEFINITIONS

This section provides definitions of key terms used throughout this LRP. The terms are consistent with the terminology used by the EBRD and reflect good international resettlement practice, particularly as outlined in EBRD ESR5. The following key definitions presented in Table 1-1.

TABLE 1-1 KEY DEFINITIONS

Term	Definition
Area of Influence (AoI)	The geographic area affected by the Project, including direct and indirect social, environmental, and economic impacts.

Term	Definition
Affected Person / Household / Community	Any person, household, or community who loses the right to own, use, or otherwise benefit from land, property, or resources—either partially or fully, temporarily or permanently—due to Project activities.
Compensation	Payment in cash or in kind to restore assets or resources lost as a result of the Project, based on full replacement cost.
Cut-off Date	The date after which improvements to land or assets (such as structures or crops) are not eligible for compensation. Used to prevent opportunistic claims.
Economic Displacement	Loss of income or livelihood resulting from Project-related land acquisition or access restrictions, without physical relocation.
Eligibility	The right to receive compensation or livelihood assistance based on defined criteria, such as land tenure or asset ownership at cut-off date.
Entitlement Framework / Matrix	A structured list identifying all categories of affected persons and their corresponding entitlements to compensation and assistance.
Forced Evictions	Involuntary removal of individuals or groups from land or housing without legal safeguards, consultation, compensation, or access to remedies. Prohibited under EBRD and IFC standards.
Full Replacement Cost	The market value of lost assets plus transaction costs (e.g., fees, taxes, relocation costs), ensuring no financial loss for the affected person.
Grievance Mechanism	A formal process to receive, assess, and resolve concerns or complaints from affected stakeholders in a timely and transparent manner.
Head of Household	The primary decision-maker or income provider in a household unit, responsible for the welfare of its members.
In-kind Compensation / Replacement	The replacement of lost assets with similar goods or services (e.g., a new house instead of cash).
Involuntary Resettlement	Displacement that occurs without the informed consent of the affected persons, and includes both physical and economic displacement.
Land Acquisition	The process by which land is obtained for the Project through purchase, expropriation, lease, or other means.
Land Expropriation	Compulsory acquisition of land or rights by public authorities, typically with compensation, for public interest or development purposes.
Livelihood	The full range of income-generating activities and means of subsistence used by individuals, families, or communities.
Livelihood Improvement and Restoration	Measures to restore or improve the incomes, production levels, and living standards of economically displaced persons.
Livelihood Restoration Plan (LRP)	A formal document outlining measures to restore affected persons' livelihoods and entitlements in a transparent and equitable manner.
Negotiated Settlement	A voluntary agreement between the Project and land users or owners to acquire land or rights without recourse to expropriation.

Term	Definition
Physical Displacement / Resettlement	Loss of housing requiring relocation of affected persons to a new physical location.
Private Property Owners	Individuals or entities holding legal title to land, structures, or other assets, and entitled to compensation under applicable law.
Project-Affected Household (PAH)	A household that loses land, structures, access to resources, or income sources due to Project activities—permanently or temporarily.
Project-Affected Person (PAP)	An individual affected by the Project through loss of land, structures, crops, income, or access—partially or fully, permanently or temporarily.
Replacement Cost	The amount needed to replace lost assets with those of equal quality and utility, including transaction costs and restoration to pre-Project condition.
Resettlement	The overall process involving physical and economic displacement, compensation, livelihood support, and relocation assistance.
Stakeholders	Individuals, groups, or institutions affected by or interested in the Project and its outcomes.
Transaction Costs	Costs associated with acquiring replacement land or assets (e.g., taxes, registration, permits, legal fees).
Transitional Assistance	Temporary financial or material support provided to affected persons during the period of economic recovery or re-establishment.
Vulnerable Groups	Persons who are more likely to be adversely affected by Project impacts due to their gender, age, poverty, disability, ethnicity, or other marginal status.

1.4 KEY PRINCIPLES

The Project LRP has been developed in alignment with the principles set out in the applicable standards (see Chapter **Error! Reference source not found.**), and reflects the following key principles:

- **Avoidance and Minimization of Displacement:** The Project design prioritizes the avoidance of physical and economic displacement wherever feasible. When displacement is unavoidable, measures are taken to minimize its scale and adverse impacts through careful planning and stakeholder engagement.
- **No Forced Evictions:** No individual or community shall be subject to forced eviction or displacement. All land acquisition and related activities are undertaken lawfully, transparently, and with the informed consent of affected persons.
- **Compensation at Full Replacement Cost:** Affected persons are compensated for lost assets at full replacement cost, ensuring that their standard of living is restored or improved compared to pre-project conditions.
- **Livelihood Restoration and Improvement:** The Project commits to restoring, and where possible improving, the livelihoods and living standards of all economically displaced persons through tailored livelihood restoration measures.
- **Meaningful Consultation and Participation:** Affected persons are engaged in a meaningful, inclusive, and culturally appropriate manner throughout the process.

- Their views and feedback are considered in planning, implementation, and monitoring of LRP activities.
- **Particular Attention to Vulnerable Groups:** Special measures are implemented to identify and assist vulnerable individuals or households, ensuring they are not disproportionately affected and have equal access to project benefits.
- **Transparency and Grievance Redress:** Clear information on entitlements, procedures, and timelines is disclosed to all stakeholders. A grievance mechanism is in place to address complaints promptly, fairly, and without retribution.
- **Monitoring and Adaptive Management:** Implementation of the LRP is regularly monitored and evaluated to ensure commitments are met. Adaptive management approaches are applied to address emerging issues and improve effectiveness.

1.5 PROJECT BACKGROUND

The Arturna Wind Power Plant Project is planned to be developed within the administrative boundaries of Bodrum and Milas Districts in Muğla Province. The Project includes the installation of 22 wind turbines. Each turbine has an installed capacity of 4.2 MWm / 4.2 MWe, with a total installed capacity of 92.4 MWm / 92.4 MWe. The estimated annual electricity generation is 296,378,460 kWh.

All turbine locations in Gökpınar are situated on state-owned forest land. In Mazı, turbines are located on a mix of forest and privately owned land. Moreover, sweeping area of T17 and, AoI of T17, T18 and T19 are within the border of Fesleğen village on a state-owned forest land. AoI of T1 and T6 are also within the Yeniköy village on state-owned forest land. In addition to the turbine locations, land will be required for the construction of access roads and the energy transmission line (ETL), which may affect both public and private land parcels. Where private land is impacted, land acquisition will be conducted in line with Turkish Expropriation Law No. 2942.

An Environmental Impact Assessment (EIA) Report was prepared by a certified local consultant in line with Turkish regulations, and EIA Positive decision was issued by the Ministry of Environment, Urbanization, and Climate Change (MoEUCC) on 25th of June 2024.

The Project's Area of Influence includes the neighborhoods of Mazı and Gökpınar, Fesleğen and also parts of Yeniköy due to impacts from the access road and energy transmission line.

1.6 PROJECT OVERVIEW

The Project will have a total installed capacity of 92.4 MWm / 92.4 MWe and is expected to generate approximately 296 million kWh of electricity per year.

The construction phase of the Project is expected to last 15 months, with a peak force of 200 personnel planned to be employed during construction and 10 personnel during the operational phase. As of October 2025, a total of 99 personnel is currently employed for the Project. Job announcements for the Project will be published through LinkedIn,

Kariyer.net, HR-Web, the Enerjisa's official platforms, and the Project website¹. Candidates will be evaluated through a transparent and inclusive recruitment process involving initial screening, interviews, and necessary assessments. Local applicants will also be informed through community meetings, where interested individuals can register on application lists managed by the Community Liaison Officer (CLO). The CLO will act only as a facilitator, ensuring equal access for all applicants, while final hiring decisions will be made by the contractor companies.

The economic lifespan of the Project is projected to be 49 years.

Accommodation during the construction phase will be provided at rented houses in the vicinity and a mobilization area will be used for office and welfare purposes. According to the latest information provided from the site, mobilization activities have been started in May 2025. The Project is planned to become fully operational by June 2026.

The Project's Area of Influence (AoI) includes Mazi and Gökpınar, where turbines and related facilities will be located, as well as Yeniköy, which will be affected by linear infrastructure such as the access road and the energy transmission line. These settlements have been included in the scope of social impact assessment and livelihood restoration planning due to potential temporary and permanent land use impacts. The layout of the Project is given in Figure 1-1.

¹ <https://yekares2.enerjisauretim.com/>

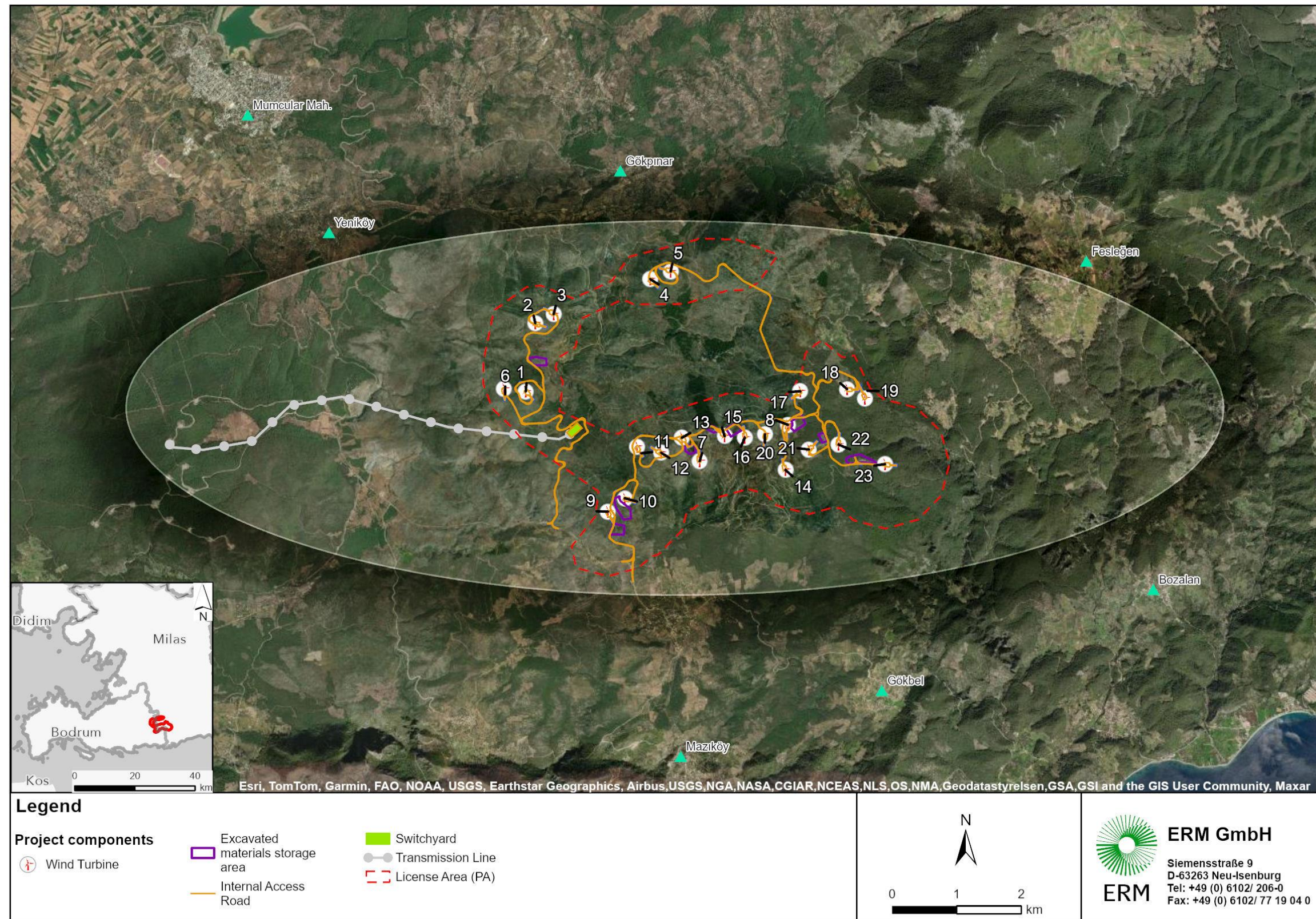


FIGURE 1-1 PROJECT LAYOUT

Note: T1 was excluded from the scope of this ESIA due to its cancellation.

1.6.1 PROJECT LOCATION

The Arturna Wind Power Plant Project will be developed within the administrative boundaries of Muğla Province, specifically within the Bodrum District (Mazı Neighborhood) and Milas District (Gökpınar Neighborhood). All four turbine locations in Gökpınar are situated on forest land, while the turbine locations in Mazı comprise both forest and privately owned land.

According to the Aydın-Muğla-Denizli Planning Region 1/100,000 Scale Environmental Layout Plan, the majority of the Project area is designated as "Forest Area," with certain turbine locations—such as T14, T16, and T21—situated in "Scrubland" or "Agricultural Land" areas.

The nearest settlements within a 1 km buffer of Project boundary are:

- Mazı Neighborhood – 810 m southwest of the Project; - directly affected by turbines and access roads
- Gökpınar Neighborhood – 860 m northwest of the Project boundary Mazı Neighborhood – directly affected by turbines and access roads;
- Yeniköy Neighborhood – indirectly affected by the access road and energy transmission line route.

These neighborhoods constitute the core of the Project's Area of Influence, as they are likely to experience land acquisition, restrictions on land use, and temporary construction-related impacts. They are therefore the primary focus of the Livelihood Restoration Plan.

The nearest settlements are presented in Figure 1-2.

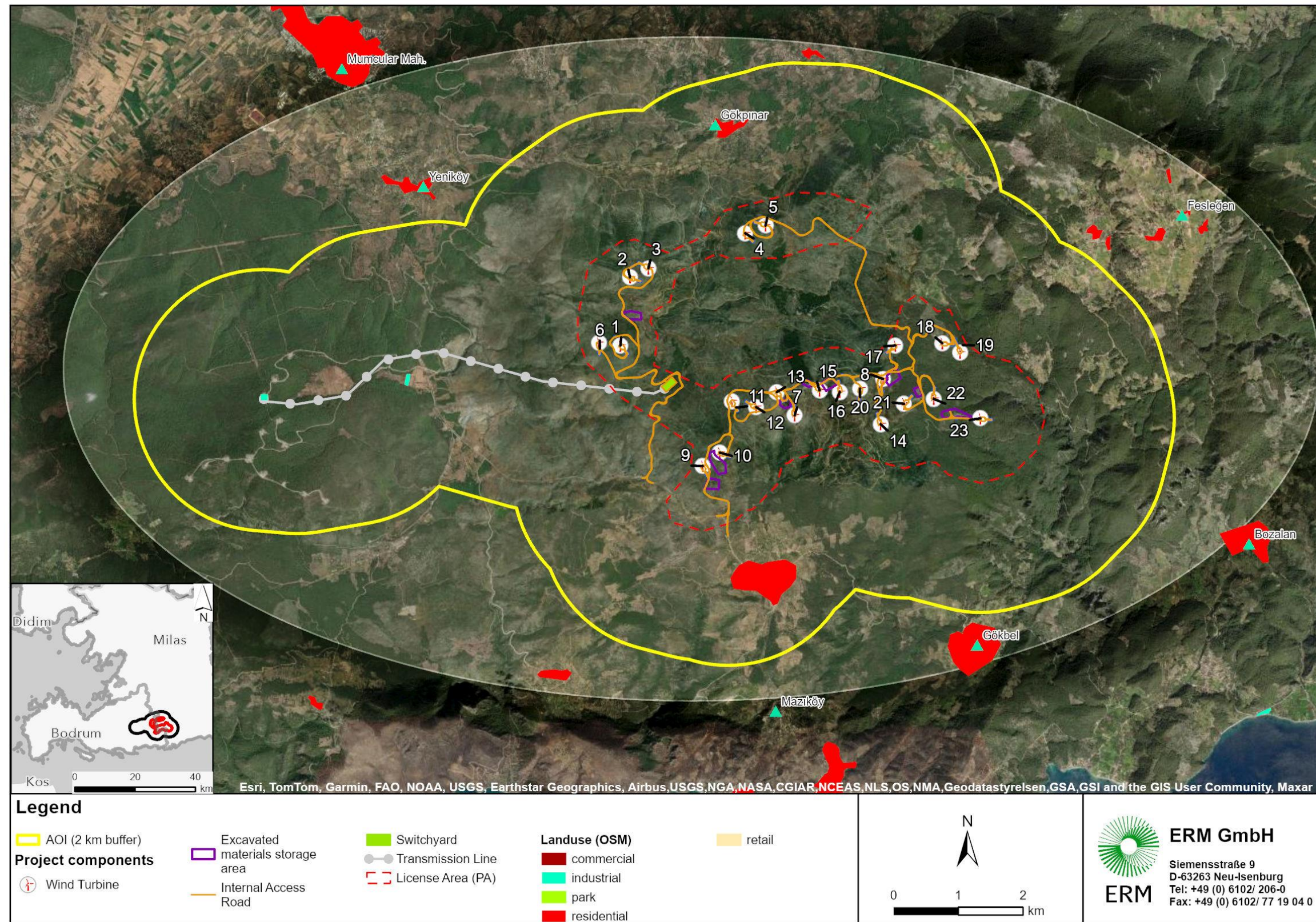


FIGURE 1-2 NEAREST SETTLEMENTS MAP

Note: T1 was excluded from the scope of this ESIA due to its cancellation.

The coordinates of the planned wind turbines are given in Table 1-2.

TABLE 1-2 LOCATIONS OF THE PLANNED WIND TURBINES

Wind Turbine No.	Coordinates (UTM - 6 degrees ED50)	
	Longitude	Latitude
T2	563595.0	4103545.0
T3	563880.0	4103684.0
T4	565376.0	4104226.0
T5	565691.0	4104345.0
T6	563129.0	4102442.0
T7	566140.0	4101412.0
T8	567507.0	4101973.0
T9	564720.0	4100629.0
T10	564982.0	4100836.0
T11	565236.0	4101533.0
T12	565544.0	4101541.0
T13	565865.0	4101772.0
T14	567469.0	4101276.0
T15	566526.0	4101797.0
T16	566839.0	4101774.0
T17	567698.0	4102492.0
T18	568424.0	4102525.0
T19	568737.0	4102499.0
T20	567152.0	4101826.0
T21	567832.0	4101591.0
T22	568290.0	4101667.0
T23	569012.0	4101366.0

1.6.2 PROJECT COMPONENTS

In addition to the wind turbine locations in Mazı and Gökpınar neighborhoods, several settlements will be affected by the Project's linear infrastructure components, including the construction of access roads and the energy transmission line (ETL).

The Yeniköy Neighborhood has been identified as being indirectly affected by the Project, particularly due to the construction of the access road and routing of the ETL. These components may require the use of both forest land and privately owned parcels,

potentially resulting in temporary and/or permanent land acquisition and disruption of land-based livelihoods.

Mazı and Gökpınar are directly affected by turbine locations and associated permanent infrastructure such as crane pads, storage areas, and access roads. In Mazı, some turbines and related components are located on privately owned land, which may result in economic displacement and restricted land use during construction and operation.

These settlements, Mazı, Gökpınar, and Yeniköy, are considered priority areas within the Project's Area of Influence and are therefore the primary focus of the Livelihood Restoration Plan (LRP).

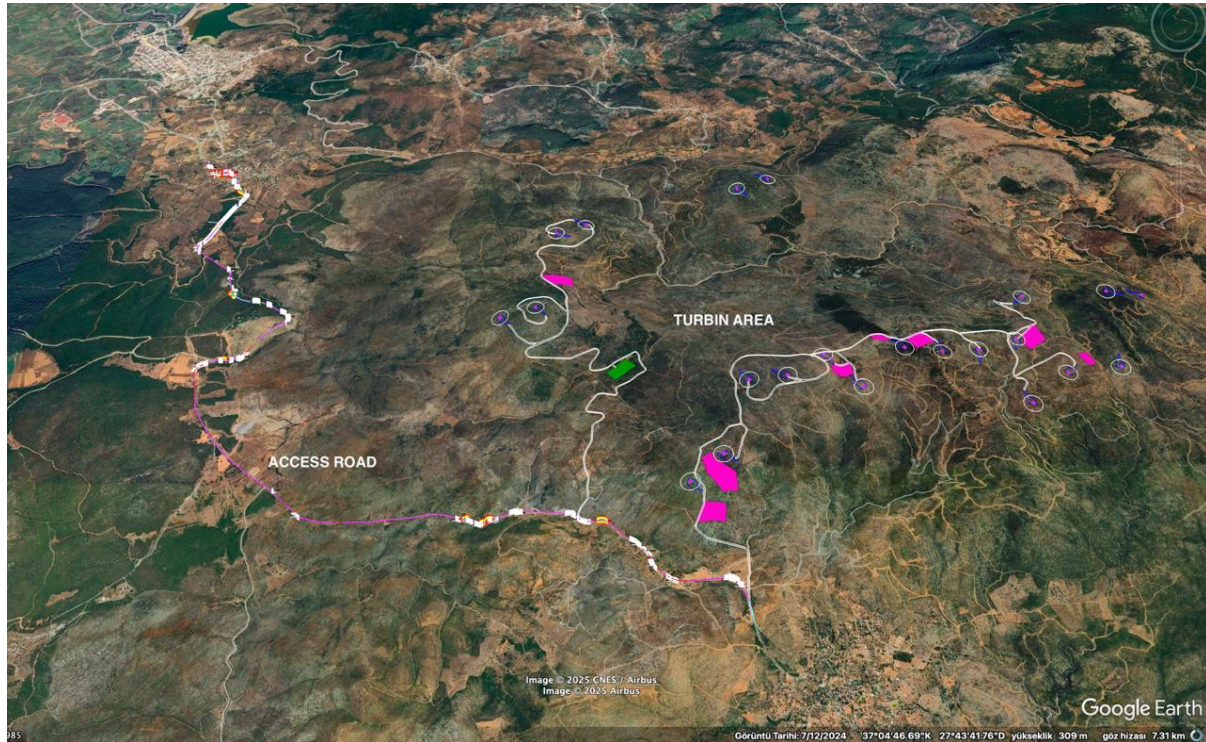


FIGURE 1-3 WPP TRANSMISSION LINE AND ACCESS ROAD

As such, all these settlements have been considered in the Livelihood Restoration Plan and the social impact assessment process to ensure inclusive engagement, risk mitigation, and fair compensation where applicable.

1.7 PROJECT AREA OF INFLUENCE

The Area of Influence (AoI) for the LRP of the Arturna WPP has been defined specifically from a social perspective, focusing on settlements and land users that may be directly or indirectly affected by land acquisition, access restrictions, and other Project-induced impacts relevant to livelihoods.

While the overall Project AoI defined in the ESIA considered a broader scope encompassing biophysical receptors, the LRP AoI has been refined to address the specific geographies where land-based livelihoods may be impacted and where restoration or compensation measures may be required.

The LRP AoI includes:

- Areas where land is permanently or temporarily acquired for turbines, access roads, energy transmission lines (ETL), and construction facilities (e.g., camps and storage areas);
- Settlements in proximity to the Project footprint that may experience access limitations to forest areas, communal lands, or other productive assets;
- Settlements that may be indirectly affected through increased traffic, labor influx, changes in local markets, or employment opportunities associated with Project construction and operation

Based on the April 2025 fieldwork, stakeholder interviews, and site observations, the following settlements have been identified as part of the LRP AoI for the Arturna WPP:

- **Mazı Neighborhood (Bodrum District):** Mazı is directly affected by multiple project components, including wind turbine locations, access roads, and the ETL. The project footprint in this neighborhood includes both forest and privately owned land parcels. Based on the site visits and household interviews, while non-agricultural employment in tourism and services dominates among the youth, secondary sources of livelihood such as olive cultivation, small-scale livestock, and seasonal beekeeping remain important for many households. Beekeeping, in particular, is practiced both by local and migratory beekeepers. Concerns were raised during consultations about potential loss of access to grazing and beekeeping areas due to construction works or restricted zones. While most of the affected lands are not actively cultivated, some include structures in disuse or seasonal occupation. One structure (Parcel 400/1) is used seasonally, while another (unregistered parcel) is inhabited for over 10 months a year and houses vulnerable individuals. All of these cases are included in the scope of the LRP.
- **Gökpınar Neighborhood (Milas District):** Gökpınar is directly affected by four turbine locations, all situated on forest land. No private land acquisition is expected in this neighborhood. However, temporary impacts related to construction access and disturbance may affect forest-dependent livelihood activities. During ESIA fieldwork, structured interviews including LRP-related questions were conducted with residents. No significant physical or economic displacement risks were identified, but limited forest-based activities such as beekeeping and seasonal gathering may experience disruptions.
- **Yeniköy Neighborhood:** Although not directly hosting any project infrastructure, Yeniköy falls within the broader Area of Influence due to its proximity to planned access road alignments and potential construction-related traffic and disturbances. Any informal land use or resource access restrictions resulting from road development will be monitored, and if identified, included in the LRP implementation scope.

These settlements have been included in the LRP AoI to ensure that all potentially affected individuals—whether economically displaced, access-restricted, or indirectly impacted—are identified and considered in the design of compensation measures and livelihood restoration support.

2. LAND ACQUISITION AND LIVELIHOOD CONTEXT

This section outlines the legal framework, land types, and scale of land acquisition undertaken for the Arturna WPP and examines the associated impacts on local livelihoods. It also provides an overview of land use patterns and the socio-economic characteristics of Project-Affected Persons (PAPs). Understanding the interface between land acquisition and livelihood dynamics is essential for ensuring that any economic displacement is addressed in line with IFC Performance Standard 5 (PS5) and EBRD Environmental and Social Requirement 5 (ESR5), through timely compensation and targeted livelihood restoration support.

2.1 OVERVIEW OF LAND TYPES AND LEGAL ACQUISITION FRAMEWORK

Land required for the project spans three main categories: state forest land, privately owned land, and unregistered/informally used land.

- **State Forest Land:** Most of the project's infrastructure, including all turbine locations in Gökpınar and the majority of turbines in Mazi, is located on state-owned forest land. These lands are regulated under Forest Law No. 6831, and their use requires a long-term usufruct permit (typically 49 years) granted by the Ministry of Agriculture and Forestry. The ETL corridor and access roads are also expected to pass predominantly through forest lands.
- **Privately Owned Lands:** According to Project needs, 12 privately owned parcels in Mazi will be acquired, mostly for access roads, turbine sites, and the switchyard. Key details include;
 - Parcel No. 396/1 and 393/10: Host wind turbine foundations.
 - Parcel No. 400/1: Hosts both the access road and switchyard; ownership is fragmented across three equal shares; some communication ongoing via legal representatives.
 - Parcel No. 391/3: Contains a stone structure; not in active residential use. Hosts a part of the access road.
 - Parcel No. 393/28 and 393/21: Will be fully acquired, with 100% of the parcel area affected.
 - Remaining parcels will be partially acquired, preserving usability in most cases.

All acquisition is being carried out under Expropriation Law No. 2942, with compensation calculated at full replacement cost including structures and loss of use.

Unregistered/Informally Used Land: During fieldwork, an unregistered residential structure was identified within the project's AoI, occupied year-round by seven individuals, including four vulnerable persons. The head of household derives livelihood from livestock grazing in the area. Although not formally listed in the expropriation plan, this case has been included in the LRP as an economically displaced household.

Transmission Line and Road Corridors: The ETL route has been finalized as of November 2025 and includes 3 parcels which are privately owned. I.

The project developer is committed to ensuring that all land acquisition is undertaken in accordance with Turkish Expropriation Law No. 2942 and aligned with IFC PS5 and EBRD ESR5 requirements. This includes:

- Compensation at full replacement cost,
- Inclusion of informal users and vulnerable groups,
- Consideration of structures, livelihood activities (e.g., livestock, beekeeping), and non-titled land use.

Table 2-1 below provides an overview of the land types and applicable legal procedures.

TABLE 2-1 OVERVIEW OF THE LAND TYPES AND APPLICABLE LEGAL PROCEDURES

Land Type	Project Use / Affected Components	Legal Owner	Applicable Law / Regulation	Acquisition Procedure	Project-Affected Persons (PAPs)
State Forest Land	Wind turbine sites (including all in Gökpınar), access roads, switchyard, excess excavation material storage areas	Ministry of Agriculture and Forestry	Forest Law No. 6831	Long-term usufruct permit (typically 49 years) via Ministry approval	Yes – Potential informal users (e.g., beekeepers, seasonal forest gatherers)
Private Land	Access roads and turbine locations in Mazi; 14 affected parcels, some with unused or seasonally used structures, 3 parcels for the ETL	Private individuals	Expropriation Law No. 2942	Expropriation with full replacement cost compensation	Yes – Legal owners; one case includes a vulnerable household (structure used year-round)
Unregistered / Informal Use Land	One structure actively used year-round for livestock-based livelihood; no title deed	No registered title (informal occupancy)	IFC PS5 and EBRD ESR5 / Customary Use Recognition	Included via LRP; eligible for compensation and livelihood support	Yes – 1 household (7 people, including 4 vulnerable individuals)

2.1.1 LAND USE, OWNERSHIP, AND PROJECT FOOTPRINT

2.1.1.1 LAND USE AND TENURE TYPES

Land use and tenure has the following characteristics in the AoI:

All five turbine locations (T2, T3, T4, T5, T17) in Gökpınar are situated on state-owned forest land.

- In Mazi, turbine sites, access roads, and the energy transmission line traverse a combination of forest land and privately owned parcels.
- Several parcels, particularly those along access road alignments, include partial acquisition zones, while a few are subject to full acquisition (e.g., Parcels 393/28 and 393/21).
- One informal residential structure, not listed in official parcel records, was identified during fieldwork and is occupied by a vulnerable household (due to combination of socio-economic, legal, and physical exposure factors)

The Project footprint consists of:

- 22 wind turbines
- Access roads and crane pads
- A switchyard
- An energy transmission line (ETL)
- Temporary construction zones and excess excavation material storage areas

Each land type is subject to a distinct legal process:

- Forest Land – governed under Forest Law No. 6831; requires long-term usufruct permits (typically 49 years).
- Private Land – expropriated under Expropriation Law No. 2942, with compensation at full replacement cost.
- Unregistered/Informally Used Land – addressed via LRP measures, aligned with IFC PS5 and EBRD ESR5.

Project-affected settlements and the nature of land-related impacts are summarized in Table 2-2. Table 2-3 presents the land need of the Project with their land acquisition status.

TABLE 2-2 IMPACTS OF THE PROJECT DUE TO LAND ACQUISITION

Project-Affected Settlements	Type of Impact
Mazi (Bodrum)	Wind turbine locations, access roads, switchyard, ETL route, partial/full land acquisition, 1 vulnerable informal household
Gökpınar (Milas)	Wind turbine locations on forest land; no private land acquisition anticipated
Yeniköy (Bodrum)	Potential indirect impacts due to access road alignment (under verification)

TABLE 2-3 LAND NEED OF THE PROJECT AND THE LAND ACQUISITION STATUS

Project Component	Total Number of parcels affected	Total area affected (ha)	# of Private parcels	#Public (forest/treasury)	Type of impact	Land acquisition Status
Total turbine platform	11	39.49	3	3 (Treasury) and 5 (Forest)	Permanent Land acquisition	Use rights for energy generation purposes are granted through a long-term (49-year) permit in line with Article 17 of the Forest Law No. 6831.
Total Area for Access Road	21	42.4	10	8 (Treasury), 3 (Forest)	Permanent land acquisition for private parcels	
Switchyard area	2		1	1 (Forest)	Permanent	Use rights for energy generation purposes are granted through a long-term (49-year) permit in line with Article 17 of the Forest Law No. 6831. The final forest permit required under Article 17 of the Forest Law has been obtained.
Mobilization Area	2	0.6874	2	-	Temporary	Lease agreements were signed for 1 year by contractors.
Total Excess Excavation Material Storage	-	-	-	-	Temporary	Excavation and filling are balanced.

Project Component	Total Number of parcels affected	Total area affected (ha)	# of Private parcels	#Public (forest/treasury)	Type of impact	Land acquisition Status
Area (if needed)						
Sub-total for project	23*	81.89	16*	9	-	-
ETL (Poles)	3	-	3	-	Permanent for poles	within TEİAŞ's scope of authority
ETL (Cable)		0.19**			Easement rights (with land use restrictions)	

*The numbers were not summed directly since some of the turbines, roads, and switchyard are located on the same parcel, in other words, they are overlapping.

** The affected area is given for private parcels

Summary of turbine location and land ownership status is presented in Table 2-.

TABLE 2-4 TURBINE LOCATION AND LAND OWNERSHIP

Turbine	Province	District	Neighborhood	Property Status
T1	Muğla	Bodrum	Mazı	State Forest
T2	Muğla	Milas	Gökpınar	State Forest
T3	Muğla	Milas	Gökpınar	State Forest
T4	Muğla	Milas	Gökpınar	State Forest
T5	Muğla	Bodrum	Mazı	State Forest
T6	Muğla	Bodrum	Mazı	State Forest
T7	Muğla	Bodrum	Mazı	State Forest
T8	Muğla	Bodrum	Mazı	State Forest
T9	Muğla	Bodrum	Mazı	State Forest
T10	Muğla	Bodrum	Mazı	State Forest
T11	Muğla	Bodrum	Mazı	State Forest
T12	Muğla	Bodrum	Mazı	State Forest
T13	Muğla	Bodrum	Mazı	Private
T14	Muğla	Bodrum	Mazı	Private
T15	Muğla	Bodrum	Mazı	State Forest
T16	Muğla	Bodrum	Mazı	Private

Turbine	Province	District	Neighborhood	Property Status
T17	Muğla	Bodrum	Mazı	State Forest
T18	Muğla	Bodrum	Mazı	State Forest
T19	Muğla	Bodrum	Mazı	State Forest
T20	Muğla	Bodrum	Mazı	State Forest
T21	Muğla	Bodrum	Mazı	Private
T22	Muğla	Bodrum	Mazı	State Forest
T23	Muğla	Bodrum	Mazı	State Forest

TABLE 2-5 TURBINE LOCATIONS LAND ACQUISITION

Province	District	Settlement	Parcel No	Owner Type	Ownership	Land Type	Total Area (m ²)	Expropriated Area (m ²)	Intended Use
Muğla	Bodrum	Mazı	393/10	Private	1/1	Disputed Land	9,037.36	7,003.82	Turbine Pad
Muğla	Bodrum	Mazı	393/11	Treasury	1/1	Agricultural	9,415.64	0.00	Turbine Pad
Muğla	Bodrum	Mazı	393/15	Private	1/1	Disputed Parcel	17,781.39	~1,986.35	Turbine Pad
Muğla	Bodrum	Mazı	393/20	Treasury	1/1	Scrubland	5,461.62	0.00	Turbine Pad
Muğla	Bodrum	Mazı	396/1	Private	1/1	Agricultural	14,352.60	8,909.73	Turbine Pad
Muğla	Bodrum	Mazı	400/1	Private	1/1	Agricultural	13,360.97	8,337.43	Service Road and Switchyard

2.2 LAND REQUIREMENTS FOR ASSOCIATED FACILITIES AND INFRASTRUCTURE

The majority of the Arturna Wind Power Plant Project area falls within state-owned forest lands, as designated under the Aydın-Muğla-Denizli Planning Region 1/100,000 Scale Environmental Layout Plan. However, several project components—particularly access roads and turbine foundations in Mazı Neighborhood—require the acquisition of privately owned parcels.

Among the 22 planned wind turbine locations:

- All four turbines in Gökpınar are located entirely on state forest land.
- In Mazı, most turbines are located on forest parcels; however, T14, T16, and T21 are situated on privately owned agricultural land.

- The switchyard and several segments of the access road network also intersect with private land, triggering the need for expropriation under national law.

Based on the site-specific land ownership analysis conducted by the Client:

- A total of 14 privately owned parcels are subject to partial or full expropriation.
- Two of these parcels contain structures: Parcel 391/3 includes a stone house, and Parcel 400/1 includes a structure with seasonal use. These are evaluated within the scope of the Livelihood Restoration Plan (LRP).
- An additional unregistered structure occupied by a vulnerable household was identified during the LRP field study and has been included in the LRP due to its location within the project's footprint.

Land acquisition for energy projects in Türkiye is governed by Expropriation Law No. 2942, which allows for the acquisition of privately owned immovable assets in the public interest. Where voluntary agreement cannot be reached, formal expropriation procedures are implemented. Compensation must be provided at full replacement cost, in line with both Turkish legislation and IFC PS5 and EBRD ESR5.

In line with regulatory requirements and technical sequencing:

- Geological and geotechnical drilling studies will be conducted in turbine areas, which may require localized updates to land ownership mapping.
- Final cadastral verification and mapping studies will inform the definitive acquisition boundaries for each project component.
- All land acquisition processes—whether via permit or expropriation—will include identification of land users, and, where applicable, trigger livelihood restoration measures, especially in cases involving economic displacement or loss of access to land-based income sources.

2.2.1 ENERGY TRANSMISSION LINE

In Türkiye, the construction and operation of Energy Transmission Lines (ETLs) fall under the authority of the Turkish Electricity Transmission Corporation (TEİAŞ). TEİAŞ is the ultimate responsible body for project approval, land acquisition and easement establishment, construction management, and long-term operation of ETLs. The Project Company has prepared the design and undertaken preparatory works on behalf of TEİAŞ; however, ownership, accountability, and regulatory authority throughout the process remain with TEİAŞ.

The final route of the Energy Transmission Line (ETL) for the Arturna Wind Power Plant Project was finalized in October 2025. In total, 3 private parcels are affected by the overhead electrical cables due to the construction of ETL.

The easement-based expropriation will be conducted in accordance with Expropriation Law No. 2942, ensuring full replacement cost compensation for any landowners or right holders, in line with IFC PS5 and ESR5.

2.2.1.1 EXPROPRIATION EFFORTS

Under EBRD ESR5, compensation for parcels expropriated by a national government must follow principles that ensure fairness and livelihood restoration. The process should aim to avoid or minimize displacement, and when unavoidable, affected persons must receive compensation at full replacement cost, including transaction fees, without deductions for depreciation. Compensation must be provided before displacement occurs, and the project sponsor is responsible for ensuring that government-led expropriation aligns with ESR5 standards. This includes verifying that compensation is adequate, timely, and that vulnerable groups are protected. Additionally, negotiated settlements are preferred, provided they are transparent and based on informed consent.

Under EBRD ESR5, informal land users are still entitled to compensation and support if they are displaced (physically or economically) due to expropriation. ESR5 emphasizes that all affected persons, regardless of legal status, must be treated fairly and compensated at full replacement cost for lost assets and livelihoods. This includes support for restoring or improving living standards and income sources. Enerjisa Üretim must ensure that informal users are identified early, consulted meaningfully, and provided with appropriate resettlement assistance and livelihood restoration measures, even if the expropriation is carried out by a national government.

In Türkiye, the construction and operation of ETLs fall under the authority of the Turkish Electricity Transmission Corporation (TEİAŞ). TEİAŞ is the ultimate responsible body for project approval, land acquisition and easement establishment, construction management, and long-term operation of ETLs. The Project Company has prepared the design and undertaken preparatory works on behalf of TEİAŞ; however, ownership, accountability, and regulatory authority throughout the process remain with TEİAŞ. Since the ETLs belong to TEİAŞ, the entire expropriation process is being carried out by TEİAŞ. However, in cases where Enerjisa Üretim need to expedite the process to start pole installations at site earlier, Enerjisa Üretim may hold negotiations with the landowners of the parcels where the poles will be located, prior to the expropriation. In such cases, consent forms may be signed in exchange for payments made to the landowners based on a pre-determined amount per pole. The ETL route has been finalized as of October 2025.

As part of the Project's land acquisition process, Enerjisa Üretim conducts negotiation and information meetings with affected parcel owners prior to the initiation of expropriation procedures. In accordance with EMRA's standard sequence, the expropriation process is carried out in the order of Article 27, Article 8, and Article 10. The process follows: (i) initial meetings led by Enerjisa Üretim with parcel owners regarding land leasing arrangements, and (ii) a subsequent negotiation meeting conducted by EMRA as part of the formal expropriation process. If an agreement is reached between Enerjisa Üretim and the parcel owners, no expropriation is required.

2.2.2 ACCESS ROADS

Access roads will be constructed or upgraded to connect the wind turbine locations, switchyard, and other project infrastructure across Mazi and Gökpınar neighborhoods. Based on cadastral analysis and field verification:

- Several segments of the access road traverse private parcels in Mazi, resulting in partial or full land acquisition across multiple plots (see Table 2-1).
- In Gökpınar, all road segments are expected to lie within state forest lands.
- One informal residential structure and multiple privately owned agricultural parcels (e.g., 393/28, 393/21) are directly affected by road alignments.

All affected private parcels are being acquired in line with Expropriation Law No. 2942, with compensation at full replacement cost. In addition to landowners, informal users (e.g., livestock herders, seasonal farmers) may also experience impacts and are addressed through LRP.

Following land acquisition data presents Access Road Land acquisition summary:

TABLE 2-6 ACCESS ROAD LAND ACQUISITION

Province / District / Settlement	Parcel No	Owner Type	Ownership	Land Type	Total Area (m ²)	Expropriation/ Easement Area (m ²)	Intended Use
Muğla/Bodrum/ Mazi	391/1	Treasury	1/1	Scrubland	14,448.35	3,466.57	Access Road
	391/3	Private	1/1	Built-up + Field	11,796.37	1,007.51	Access Road
	393/1	Treasury	1/1	Scrubland	1,440.87	674.26	Access Road
	393/2	Treasury	1/1	-	14,873.20	4,935.14	Access Road
	393/3	Treasury	1/1	Scrubland	6,487.36	2,602.97	Access Road
	393/8	Treasury	1/1	Scrubland	8,237.19	1,270.83	Access Road
	393/11	Treasury	1/1	Agricultural	9,415.64	1,648.89	Access Road
	393/15	Disputed	1/1	Disputed Land	355,886.37	11,986.55	Access Road
	393/21	Private	1/1	Agricultural	3,563.49	3,563.49	Access Road
	393/22	Private	1/1	Agricultural	6,493.25	1,128.01	Access Road
	393/25	Private	1/1	Agricultural	385.20	62.32	Access Road
	393/26	Private	1/1	Agricultural	788.34	384.12	Access Road
	393/27	Private	1/1	Agricultural	340.64	81.46	Access Road
	393/28	Private	1/1	Agricultural	258.16	258.16	Access Road

Province / District / Settlement	Parcel No	Owner Type	Ownership	Land Type	Total Area (m ²)	Expropriation / Easement Area (m ²)	Intended Use
	393/29	Private	1/1	-	773.15	74.11	Access Road
	394/1	Treasury	1/1	Scrubland	804.27	124.55	Access Road
	395/1	Treasury	1/1	-	6,170.13	1,026.73	Access Road
	400/1	Private	1/1	Agricultural	13,360.97	116.25	Access Road

Access to the Arturna WPP site will be provided through existing rural roads within Mazi and Gökpınar neighborhoods, with potential feeder connections from Yeniköy. These existing roads will be widened and reinforced where necessary to accommodate construction traffic and heavy turbine components.

Temporary deviations or bypasses may be introduced to minimize disruption to local traffic or avoid sensitive terrain. All road improvements and construction-phase access will be coordinated with local authorities and communities, and land acquisition needs will be finalized based on detailed engineering design.

3. LEGAL AND REGULATORY FRAMEWORK OF THE LRP

The LRP for the ARTURNA Wind Power Project is guided by the relevant Turkish legal framework governing land acquisition, compensation, and rights of Project Affected Persons (PAP), along with international standards such as IFC Performance Standard 5, EBRD ESR5. Key national legal instruments applicable to the Project are outlined below.

3.1 NATIONAL LEGISLATION

Understanding the legal and regulatory framework governing land acquisition is essential to accurately interpret the project's land requirements and the associated impacts on affected persons. This section outlines the key national laws and procedures applicable to land acquisition, compensation, and tenure arrangements in Türkiye. The sub chapters below describe relevant national laws applicable to this LRP.

Expropriation Law (Law No. 2942)

The Expropriation Law regulates the procedures for the acquisition of immovable properties owned by private individuals or legal entities for projects serving the public interest. It outlines the legal requirements for calculating compensation, establishing easement rights, and transferring land ownership.

This law is the primary legal instrument governing land acquisition under the ARTURNA WPP Project, including both permanent acquisition and temporary or limited-use rights for infrastructure such as wind turbines, transmission lines, and access roads.

It applies to privately owned lands, while the acquisition or use of treasury, forest, or pasture lands is governed by separate legislation, summarized in subsequent subsections.

Key Provisions Relevant to the Project:

- **Article 3 – Basis for Expropriation:** Public administrations may expropriate immovable properties, resources, and associated rights to implement infrastructure projects (e.g., energy facilities) in return for compensation paid in full and in cash.
- **Article 4 – Easement Rights:** Where land ownership is not altered, limited rights of use (easements) may be granted for infrastructure such as transmission lines or internal access roads. If property rights are not significantly impaired, expropriation may not be required.
- **Article 5 – Public Interest Decision:** A formal public interest decision must be issued by the authorized institution before land acquisition proceeds.
- **Articles 7–8 – Administrative Procedures:** Expropriating authorities must prepare detailed cadastral maps, conduct ownership inquiries, and initiate valuation and negotiation processes via designated commissions. If the agreement is reached with the landowner, a protocol is signed, and payment is made within 45 days.
- **Article 10 – Judicial Process:** If no agreement is reached, a civil court determines compensation and registers the land in the administration's name. The process includes expert valuation, hearings, and publication in local media. Article 10 therefore provides a legal avenue not only for disputes over compensation but also

for resolving objections linked to land division and residual plots, which is particularly relevant in the context of IFC PS5 and EBRD ESR5 requirements for ensuring fair and transparent land acquisition outcomes.

- **Article 11 – Valuation Principles:** Compensation excludes any increase in land value resulting from the project and considers any reduction in value due to easement.
- **Article 12 – Partial Expropriation:** If the remaining land becomes unviable (e.g., too small or inaccessible), the owner may apply for full acquisition within 30 days.
- **Article 14 – Right to Appeal:** Affected owners may challenge the expropriation decision in administrative courts within 30 days of notification.
- **Article 18–19 – Ownership Disputes & Unregistered Lands:** In case of disputed or unregistered land, courts determine compensation and rightful beneficiaries based on evidence. Informal users are not typically eligible under national law, but support will be provided under this LRP where required.
- **Article 25 – Transfer of Ownership:** Once the court decision is finalized, ownership transfers to the administration, and the owner can no longer use or modify the land. Any activities after this point are not compensated.
- **Article 27 – Urgent Expropriation:** In special circumstances (e.g., urgent public need), land may be acquired before full legal proceedings are completed, provided compensation is deposited in advance.
- **Article 30 – Transfer Between Public Institutions:** Immovable assets owned by public entities can be transferred to another institution following a formal valuation and application process, without typical expropriation proceedings.

Additional Applicable Legislation

In addition to the above, the following laws are applicable:

- **Cadastral Law (No. 3402):** Defines parcel boundaries and legal ownership status.
- **Land Registry Code (Official Gazette No. 28738):** Regulates land title registration, amendments, and property rights.
- **Notification Law (No. 7201):** Establishes procedures for legally notifying landowners, including those with unknown addresses.
- **Forest Law (No. 6831):** Requires permits and environmental compensation for the use of forest lands in renewable energy projects.
- **Pasture Law (No. 4342):** Governs conversion of pasture land. While user rights are not fully recognized, compensation is typically paid to public agencies.
- **Agricultural Reform Law (No. 3083):** Addresses land consolidation in areas where agriculture is no longer viable.
- **Electricity Market Law (No. 6446):** Defines TEİAŞ's authorities and responsibilities for the construction of transmission facilities and the implementation of expropriation procedures.
- **Civil Code (No. 4721):** Sets out the fundamental rules on property rights, easements, and legal principles governing immovable assets.

- **Decree-Law No. 233 on State-Owned Enterprises:** Provides the general framework for the establishment, duties, and authorities of state economic enterprises, including TEİAŞ.
- **Articles of Association of TEİAŞ (29 June 2001):** Defines TEİAŞ's operational scope, organizational structure, and specific provisions regarding land acquisition.
- **Land Development and Planning Law, Cadastre Law, Forestry Law, Pastures Law, Organized Industrial Zones Law, etc.:** Regulate land use, cadastral boundaries, forest and pasture areas, and industrial zones, guiding TEİAŞ's route planning and expropriation processes.
- **Environment Law and Agricultural Reform Law (No. 3083) and other applicable legislation:** Establish environmental protection obligations and agricultural land regulations that influence land acquisition decisions for transmission projects.

1.1.1. LAND ACQUISITION PROCESS AS PER THE NATIONAL LAW

Land acquisition for the Project is carried out in accordance with the Turkish Expropriation Law No. 2942, as amended by Law No. 4650. The Law establishes the procedures for acquiring private land for investments that are deemed to serve the public interest, including renewable energy projects such as wind power plants. The national process consists of the following key steps:

1. Public Interest Decision

The relevant public authority (typically the Ministry of Energy and Natural Resources or the Provincial Administration) issues a Public Interest Decision (PID) confirming that the Project qualifies for public benefit and authorizing the start of expropriation procedures.

2. Identification of Affected Land and Ownership Verification

Following the PID, the administration identifies all affected parcels within the Project footprint (turbine locations, access roads, connection lines, and ancillary facilities). Land title information is obtained from the Land Registry and Cadastre Directorate to verify ownership, property boundaries, and legal encumbrances.

3. Valuation of Assets and Land

A Valuation Commission is established to determine compensation in line with Article 11 of the Expropriation Law. Valuation is based on:

- Current market value of comparable properties,
 - Land type, location, and usage,
 - Productivity (for agricultural plots),
 - Trees, crops, structures, and other immovable assets on the land.
- Independent valuation experts may be engaged where necessary.

According to national legislation, land valuation can technically be conducted using three methods:

- Market Value
- Transformation Price
- Complementary Value

Plot Valuation

In case of plot valuation for expropriation purposes, the law requires that valuation must be based on the market value criteria (Article 11 of Law No. 2942).

In practice, the market value of a plot is determined through direct comparison with similar plots with known real sales prices. This requires:

- identifying comparable parcels that are similar in technical characteristics, size, location, land use and market conditions,
- determining their actual transaction prices,
- calculating the average unit price per m².

Adjustments may be made based on topography, access, infrastructure availability, or parcel shape.

Valuation of Structures on Lands and Plots

If there are structures on the areas to be expropriated; the surface area, category and age of these structures are determined first. The unit prices of the structures announced by the Ministry of Environment, Urbanization and Climate Change every year, and for specially manufactured structures without a unit price, the unit price analyses are taken as basis and the construction costs at the time of expropriation are deducted. The depreciation shares determined according to the construction category and age specified in the amended article 23 of the Regulation on the Assessment of Tax Values to be Taken as a Base for Real Estate Tax, published in the Official Gazette dated 02.12.1982 and put into effect by the Decision of the Council of Ministers, are deducted from this construction value, and the expropriation value of the structure is found in accordance with the cost criterion. In addition, the lack or abundance of some elements of the structure reduces or increases the unit square meter values for structures in the same class. Even in structures with the same characteristics, the change in the quality of the material used changes the construction value. In this case, what needs to be done is to calculate the costs of the lacking or abundant elements in the structure whose inventory is prepared, and to deduct/add them from/to the construction value.

Under the land acquisition plan, compensation will be paid to cover the full replacement cost of structures (if any).

Wreckage Value

Should the owner keep the wreckage, the assessed value of the wreckage must be subtracted from the overall value. Additionally, costs related to demolition and transportation should be calculated and compensated to the owner.

Temporary Easement Fee

When the easement right is set for a duration of 2-10 years, denoted as (n) years, and is deemed temporary, the reduction in net income within the area of the easement over (n) years is calculated up to the point when the easement right is granted.

For a temporary easement right, the loss of value is not assessed as if a permanent easement were in effect for the entire property; rather, the incurred loss is evaluated based on the income or rent forfeited from that specific portion of the property during the easement period.

According to the rulings of the Supreme Court of Appeals, the value of a two-year easement right corresponds to the income generated over two years from the area where the easement is granted. The ruling specifies that if the area is leased, the relevant amount is the rental fee, and if it is farmed, it reflects the loss of anticipated crop yield.

Permanent Easement Fee

If the period for establishing the easement is extended, it is classified as an indefinite easement lasting between 49 to 99 years. The easement fee is identified as the difference in land value before and after the easement is established, essentially reflecting the reduction in land value.

Net income loss can be calculated by taking into account;

- (i) the income loss that will occur due to the decrease in net income (decrease in productivity or increase in expenses)
- (ii) change in capitalization interest rate

Loss of income due to decrease in net income:

The easement right is determined by calculating the difference between the net income prior to the establishment of the easement and the net income following its establishment, then dividing this difference by the capitalization interest rate. In determining the net income after the establishment of the easement, the reduction in productivity and changes in expenses are assessed based on the following factors:

- type of property,
- its use,
- its size,
- location of the area affected by the easement,
- its surface area,
- geometrical position.

In establishing parcel prices for long-term easement rights, the compensation fee must not surpass 35% of the value of the land impacted by the easement. For plot parcels, this limit is set at 50%. This percentage is the maximum amount established by the Supreme Court of Appeals in accordance with Turkish law. The ownership status of the land remains unchanged, and these restrictions are removed once the land use concludes.

Calculation of Tree Prices

Once the base land value for areas with fruit-bearing or non-fruit-bearing trees is established, the price of the trees is calculated using a specific formula that considers the age of each tree. In the assessment, after determining the value of a woodland that is t years old, the value of the trees can also be derived based on their age. This is achieved by dividing the difference between the value of a specific t -year-old fruit tree and a non-fruit-bearing tree by the number of trees per decare.

4. Negotiation and Amicable Settlement

The administration is legally required to first pursue amicable (negotiated) settlement. Landowners are notified and invited to negotiation meetings. If landowners accept the compensation offer, a voluntary purchase agreement is signed, and the payment is made directly to the owner.

5. Compulsory Expropriation (If Negotiations Fail)

If an amicable agreement cannot be reached, the administration initiates compulsory expropriation through the civil court. The court appoints experts to re-evaluate the property value and determines the final compensation amount. After payment is deposited in the court account, the land title is transferred to the state.

6. Urgent Expropriation (If Applicable)

In cases where the Project is considered urgent for public interest, the administration may apply Article 27 (Urgent Expropriation). This allows immediate possession of the land following a court decision, while valuation procedures continue in parallel.

7. Payment of Compensation

In all cases, compensation must be:

- Paid in full, in advance,
- Either directly to the landowner or deposited in court (for disputed cases).

No transfer of land title can occur prior to the completion of payment.

8. Registration and Transfer of Land

Once compensation is finalized, the land is officially registered in the name of the expropriating authority at the Land Registry. The administration obtains full access rights, and Project construction activities may begin in compliance with legal requirements.

1.1.2. LAND ACQUISITION APPROACH OF THE PROJECT

The Project will implement all land acquisition activities in full compliance with the applicable Turkish national legislation, including the Expropriation Law No. 2942 and related regulations. Wherever national legislation provides clear procedures and requirements, the Project will follow these processes as the primary legal framework. In situations where national law does not fully address key principles required under international standards particularly those outlined in EBRD ESR5 and IFC Performance Standard 5, the Project will apply the relevant EBRD/IFC provisions to close the identified

gaps presented in Section 3.3. Accordingly, all valuations conducted under the Project will be based on full replacement cost without deductions for depreciation, salvage value, or transaction costs. Compensation for trees, perennial crops and other productive assets will consider their age, productivity, and the cost of re-establishment, ensuring that PAPs can restore their livelihoods.

Asset valuation is conducted based on a scoring system developed by Enerjisa presented in Section 8 – Other Support Measures.

3.2 INTERNATIONAL APPLICABLE STANDARDS

The Project is designed to align not only with national legal requirements but also with internationally recognized environmental and social performance frameworks. These standards provide a comprehensive basis for managing land acquisition, economic displacement, and stakeholder engagement in line with global best practices. Key applicable standards are presented below.

IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement

IFC Performance Standard 5 (PS5) acknowledges that land acquisition and restrictions on land use associated with development projects may cause both physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to resources that sustains livelihoods). Displacement is considered involuntary when affected persons do not have the legal right to refuse land acquisition or use restrictions.

Relevant scenarios under PS5 include:

- Compulsive acquisition through expropriation or administrative procedures.
- Negotiated settlements that involve the risk of compulsive measures if no agreement is reached.
- Restrictions on access to land, forest, or natural resources traditionally used by communities.
- Impacts on informal or vulnerable land users lacking legal titles or recognized tenure.

For such cases, PS5 requires:

- Compensation at full replacement cost for land and assets.
- Preparation of a Livelihood Restoration Plan (or Resettlement Action Plan).
- Special attention to vulnerable groups and culturally appropriate support measures.
- Documentation of all land-related transactions, compensation processes, and grievance mechanisms.

In the Project, there is no physical displacement, but economic displacement will occur due to loss of access to forest areas, agricultural land, or resource-based activities (e.g., grazing, wood collection). This LRP has been developed in accordance with PS5 to address such risks and ensure restoration of affected livelihoods.

IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

PS1 provides the overarching framework for managing project-level environmental and social risks. It mandates:

- Integrated risk and impact assessment (e.g., ESIA),
- Stakeholder engagement and information disclosure, and
- Development of an Environmental and Social Management System (ESMS).

Under PS1, the Arturna Project has developed a comprehensive ESIA and associated management plans, including this LRP, to ensure ongoing monitoring and mitigation of risks throughout the project lifecycle.

EBRD Environmental and Social Requirement 5: Land Acquisition, restrictions on land use and Involuntary Resettlement

EBRD's Environmental and Social Requirement 5 (ESR5) mirrors key principles of the PS5 in aiming to avoid or minimize physical and economic displacement, while ensuring that affected persons are compensated and supported in restoring or improving their standard of living and livelihood.

ESR5 applies to:

- Involuntary land acquisition;
- Restrictions on access to legally or customarily used lands and resources;
- Displacement of both formal landowners and informal users;
- Both physical and economic displacement, regardless of tenure status.

Core principles include:

- Compensation for lost assets at full replacement cost;
- Provision of livelihood support programs;
- Transparent and consultative processes for identifying entitlements;
- Monitoring and evaluation of resettlement outcomes.

The Project has adopted ESR5 as a benchmark to ensure that land acquisition processes, including the granting of easements and loss of forest access, do not result in unmitigated adverse impacts on local land users, including those with customary or informal use.

While EBRD's ESR5 (2024) remains broadly aligned with IFC PS5 and EBRD's former PR5, the 2024 update introduces clarifications relevant to this Project. In particular, ESR5: (i) requires restoration of access and compensation for temporary land-use restrictions during construction; (ii) sets explicit safeguards for voluntary land donations; (iii) clarifies personal data protection and cut-off procedures for census/inventory and valuation updates; (iv) requires consideration of cumulative impacts when planning socio-economic surveys and livelihood measures; (v) mandates gender-responsive engagement and gender-disaggregated monitoring; and (vi) for private-sector projects with government-managed land acquisition/resettlement, strengthens the expectation for a clear plan/framework delineating roles and responsibilities, together with enhanced monitoring,

an execution report, and, where warranted, external reviews/audits. These refinements are adopted as the benchmark for the Project.

EBRD Environmental and Social Requirement 1: Assessment and Management of Environmental and Social Risks and Impacts

EBRD's Environmental and Social Requirement 1 (ESR1) provides the overarching framework for identifying, assessing, and managing environmental and social risks throughout the life of a project. It requires project sponsors to:

- Conduct a robust ESIA;
- Establish and maintain an Environmental and Social Management System (ESMS) appropriate to the nature and scale of the project;
- Identify both direct and indirect social impacts, including those related to land acquisition and economic displacement;
- Ensure that mitigation measures are incorporated into project design and implementation;
- Implement a process of ongoing stakeholder engagement aligned with the nature and scale of the project's risks.

Under ESR1, livelihood restoration and the avoidance or minimization of social harm must be integrated into the Project's risk management approach. The Project has adopted ESR1 as a guiding principle for environmental and social due diligence, including the preparation of the ESIA, this LRP, and the Stakeholder Engagement Plan (SEP).

EBRD Environmental and Social Requirement 10: Stakeholder Engagement

EBRD's Environmental and Social Requirement 10 (ESR10) sets out the requirements for meaningful engagement with affected communities and other stakeholders throughout the Project lifecycle. It emphasizes that stakeholder engagement is an ongoing and proactive process that must be culturally appropriate and inclusive of vulnerable groups.

Key obligations under ESR10 include:

- Early disclosure of relevant Project information in a language and format understandable to affected people;
- Implementation of a structured consultation process, including meaningful opportunities for input from stakeholders prior to land acquisition or displacement;
- Establishment of an accessible, transparent, and non-judicial grievance mechanism;
- Documentation of engagement activities and integration of feedback into Project planning and mitigation.

In alignment with ESR10, the Project has developed a Stakeholder Engagement Plan (SEP) and a Grievance Mechanism (GM) to ensure that land users, including those with informal or customary rights, are properly informed, consulted, and able to raise concerns. These tools are critical to supporting the transparent and inclusive implementation of the LRP and ensuring alignment with international good practice.

Equator Principles

The Equator Principles (EPs) are a risk management framework adopted by financial institutions to assess and manage environmental and social risks in project finance. The Project aligns with the EPs, particularly:

Principle 5: Stakeholder Engagement, which requires meaningful consultation, information disclosure, and culturally appropriate engagement, especially with vulnerable and affected communities.

Principle 6: Grievance Mechanism, which mandates the establishment of an accessible, transparent, and non-retaliatory system for receiving and addressing concerns.

3.3 GAP ASSESSMENT

The following table presents a comparative gap analysis between Turkish national legislation and the key requirements of EBRD ESR5. It highlights areas where Turkish law aligns with, partially addresses, or diverges from international standards, particularly concerning the treatment of informal land users, livelihood restoration, compensation valuation, stakeholder engagement, and grievance mechanisms.

While Turkish legislation provides a structured process for formal expropriation and compensation, it lacks key provisions required under international standards, especially with regard to non-title holders, vulnerable groups, transitional livelihood support, and participatory resettlement planning.

Gap analysis between Turkish national legislation and the key requirements of EBRD ESR5 on Land Acquisition, Involuntary Resettlement, and Economic Displacement is presented in Table 3-1.

TABLE 3-1 GAP ANALYSIS BETWEEN TURKISH NATIONAL LEGISLATION AND INTERNATIONAL STANDART

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
Avoidance and Minimization	Avoid and minimize displacement through project design.	No provision; practice discourages resettlement.	Legal gap exists; practice aligns partially with ESR5. While Turkish legislation discourages resettlement in practice, it does not explicitly require avoidance and minimization of displacement through project design. There is no legal obligation for	No physical displacement is expected under the project. Project is using public lands as much as possible to avoid /minimise impact to private land users.

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
			demonstrating that all feasible alternatives were assessed to avoid or reduce displacement.	
Census and Baseline Information	Conduct census and asset inventory including non-title holders;	Turkish Law requires preparation of an inventory of assets. Land acquisition through expropriation requires conducting a census (full census) of the affected immovable assets and preparing a complete list of their owners.	Major gap: Legal census omits informal users (squatters) and informal tenants.	ESR5 process and eligibility criteria will be implemented. An inventory of assets will be prepared by TEİAŞ with the support of Enerjisa. All land users (including informal users and disadvantaged/vulnerable individuals) will be determined through an Asset Inventory and Census in accordance with ESR5. In addition, household surveys will be conducted to analyze land acquisition impacts on PAPs.
Cut off date	The client will establish a cut-off date for eligibility, ⁶ adapted to the needs and legal framework of every project, usually either: (i) as foreseen in applicable legislation; or (ii) using the end date of the inventory or project delineation (whichever is the latest). The client will inform affected persons of the cut-off date. Information on the cut-off date	Expropriation compensation is provided to legal title holders in accordance with the Expropriation Law No. 2942. In order to prevent newcomers from settling in the expropriation area, the date when the notice of decision for public good is posted at the village headman's office is used as a cut-off date for large-scale investment projects.	Moderate gap: announcements may not be disclosed to everyone in line with ESR 5	The cut-off date is the date at which the "asset inventory observation" is conducted and the assets on the land are recorded. The cut-off date will be announced to the affected communities by TEİAŞ and Enerjisa's expropriation and community relation teams.

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
	will be well documented and disseminated throughout the project area at regular intervals in written and non-written form in a manner that is culturally appropriate, gender responsive, understandable and readily accessible to affected persons. This will include posted warnings that persons settling in the project area after the cut-off date may be subject to removal. (Also see parag 29 of ESR 5 for additional provisions)	In order to prevent fraudulent claims, a digital cadastral and civil registry system based on individuals' current addresses is used.		
Scope of Eligibility	Compensate and support informal users/squatters of public lands	Only legal owners and formal users are eligible for compensation. Informal users are not recognized.	Major gap: Informal users of forest and pasture lands are not eligible for compensation under national law.	The Company will identify and compensate informal users as per ESR 5.
	Compensation/assistance to affected people who are not property owners is required under ESR 5 regardless of lack of title.	There is no legal provision requiring payment of compensation to tenants, sharecroppers and other users of the property who are not owners.	Major gap	The tenants of agricultural lands to be expropriated before harvest of crops will be eligible for compensation for crops. Sharecroppers and other users of the property will also be paid for their losses and damages, if their contract so stipulates. The availability of agricultural lands for rent in the vicinity of the land to be

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
				expropriated will be searched. Particular attention will be paid to avoid any damage on the livelihoods of tenants.
Livelihood Restoration	Restore or improve livelihoods and living standards through structured support.	No provision for restoring livelihoods; compensation is limited to land and assets.	Major gap: No livelihood restoration requirement.	Company has developed this LRP to address livelihood losses of project affected people .
Compensation Standard	Compensation at full replacement cost including transaction fees, lost income, and transitional allowances.	Based on market value; depreciation may apply; symbolic compensation for public land.	Moderate gap: Falls below international standard mainly in case of buildings. However valuation of lands/trees /crops done by independent valuers of the company and or Court assigned third party experts expected to meet the market rates	Align compensation with replacement cost standards.
Resettlement Planning	Prepare Resettlement Action Plan (RAP) or Livelihood Restoration Plan (LRP) regardless of physical displacement.	No legal obligation for private sector to prepare RAP or LRP.	Significant gap: No private-sector obligation.	Development of this LRP.
Full Replacement Value and Compensation	Compensation at full replacement cost, regardless of legal title.	The valuation of lands is undertaken by independent qualified valuator then assessed by the valuation commission, taking into account the alternation system, regional advantages and	Moderate to major gap for buildings and informal users.	No buildings affected so this will not be a major issue for this project. Land prices are assessed by qualified independent valuers and those acquired through courts are assessed by the court assigned third party experts

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
		some specific factors of the land to be expropriated. Structure compensation may deduct depreciation; public land users are excluded.		The project will ensure full replacement cost is paid for project affected lands/trees and crops.
Loss of Business	Compensate lost income and re-establishment costs for affected businesses.	No provision for loss of income or business reestablishment.	Major gap: No provision for loss of business.	Baseline surveys proved no businesses are going to be affected however in case this happens, the project will compensate the losses in alignment with the ESR 5 requirements
Compensation for Communal Assets	Provide access alternatives or collective compensation for loss of access to communal resources.	No compensation to individuals for forest/pasture use; rights belong to state institutions.	Major gap: Collective users not recognized.	Recognize and compensate communal use.
Measures for Vulnerable Persons	Identify and support vulnerable groups (e.g., poor, elderly, women, disabled) in livelihood restoration.	No definition or strategy for vulnerable persons in expropriation processes.	Major gap: Vulnerability is not addressed.	Company will identify and prioritize support for vulnerable groups.
Monitoring and Evaluation (M&E)	Monitor implementation and effectiveness of livelihood restoration; take corrective actions.	No obligation to monitor post-expropriation outcomes.	Moderate gap: No monitoring requirements under law.	Project will establish M&E systems for livelihood outcomes in close coordination with the relevant state authorities and PAPs
Information Disclosure	Early and ongoing disclosure of risks, impacts, and mitigation in accessible language/formats.	Limited to EIA process notifications; does not include land acquisition, LRP or economic/social impact disclosures.	Major gap: Disclosure limited to environmental aspects.	Enerjisa will support the land acquisition process managed through EPDK. They will engage regular meetings with PAPs during implementation of LRP.

Gap Subject	EBRD ESR5	Turkish Legal Provision	Gap Identified	Measures to bridge the gap
				<p>ETLs: Local expropriation teams of TEİAŞ regional directorates will organize information meetings with landowners when sub-project details and expropriation procedures are finalized. Enerjisa teams will support this process.</p> <p>In addition, where Article 27 implementation will be undertaken, preliminary information and negotiation meetings will be held with landowners by TEİAŞ regional directorates and only after all measures fail urgent expropriation will be applied in the case of ETL.</p>
Project-Level Grievance Mechanism (GM)	Establish accessible, transparent, and non-retaliatory grievance mechanism for affected persons throughout the project lifecycle.	No requirement for project-level GM; formal judicial appeals are the only remedy.	Major gap: Absence of non-judicial, project-level grievance mechanism.	<p>The Grievance Redress Mechanism is established within the scope of the Project to ensure that the problems of PAPs are resolved quickly, fairly and transparently without having to take legal action. The functioning of the mechanism is presented in detail in Section 11.3 and the SEP. In case the solutions within the scope of the GRM fail, PAPs can seek legal remedy.</p>

To address the defined gaps and ensure compliance with international best practices, the Project has developed this LRP. Measures adopted to close the identified gaps include:

- Extending eligibility to informal and customary land users identified through field-based census activities;
- Ensuring compensation at full replacement cost, including for structures and natural resource access losses not covered by national law;
- Providing transitional livelihood support and targeted assistance to vulnerable groups;
- Implementing project-specific grievance mechanisms and robust monitoring systems;
- Enhancing stakeholder engagement beyond EIA requirements through the Stakeholder Engagement Plan (SEP); and
- Documenting all mitigation and restoration actions in line with IFC PS5 and EBRD ESR5.

Building on this approach, the LRP has been developed not only to fill the identified regulatory gaps but also to safeguard the rights and livelihoods of all PAPs in line with international standards.

4. INFORMATION SOURCES AND METHODOLOGY

This section outlines the methodology followed during the data collection process for the Livelihood Restoration Plan for the Arturna WPP. Data was collected as part of the broader ESIA study and supplemented through additional field research.

4.1 DATA COLLECTION PROCESS OF THE FIELD STUDY

This chapter mostly presents the information collected in July 2024 and April 2025 fieldwork. A new field survey will be conducted for the final alignment of ETL to identify all land acquisition affected PAPs, including informal land users. The socioeconomic data and the full list of affected parties identified through this survey will be incorporated into the updated LRP. As the survey results are not yet available, they will be reflected in an LRP Addendum once the fieldwork is completed and verified, in line with EBRD ESR5 requirements.

The LRP field data collection was aligned with the IFC Performance Standard 5 (PS5) and EBRD Environmental and Social Requirement 5 (ES5), with the aim of identifying project-affected persons (PAPs), understanding potential economic displacement, and developing mitigation strategies.

The LRP data collection process was executed in two primary phases:

- Initial Field Study (July 2024)
- Supplementary Field Study (April 2025)

All research tools and strategies were developed to ensure inclusion, gender sensitivity, and data integrity.

Desktop Studies

Prior to field deployment, the following preparatory activities were undertaken:

- Design of survey instruments:
 - Household Survey Form
 - Mukhtar Interview Form
- Training of field researchers on ethics, confidentiality, and gender-sensitive interviewing
- Mapping of settlement boundaries and updated land acquisition lists
- Coordination with mukhtars and local authorities

Target settlements were identified based on the updated project footprint, including the wind turbine areas, access roads, energy transmission line (ETL), and temporary land use areas. Selection was based on proximity to affected parcels, forest and pastureland use, and likelihood of encountering economic displacement.

Initial Field Study (July 2024)

The first round of field studies was carried out between 11–17 July 2024 by a six-person field research team in the following directly affected neighbourhoods:

- Mazi
- Gökpınar
- Yeniköy

Household interviews were conducted in common village areas to maximize participation. Interviews with mukhtars were used to gather data on demographics, livelihoods, infrastructure, vulnerability, land ownership, and resource use. A breakdown of surveys is given in Table 4-1.

TABLE 4-1 LRP SURVEYS TARGETED AND COMPLETED (JULY 2024)

Project	Province	District	Settlement	Planned	Completed	Mukhtar Survey
ARTURNA	Muğla	Bodrum	Gökpınar	8	10	1
ARTURNA	Muğla	Milas	Mazi	9	10	1
ARTURNA	Muğla	Milas	Yeniköy	12	4	1

Supplementary Field Study (April 2025)

Fieldwork was conducted by a trained research team on April 2025 and included a combination of household surveys, mukhtar interviews, and direct site observations. The assessment tools were designed to ensure inclusivity, gender sensitivity, and confidentiality.

DESKTOP PREPARATION AND PLANNING

Prior to field deployment, the following preparatory steps were completed:

- Preparation of RAP/LRP Household Survey Forms and Mukhtar Interview Guides;
- Coordination with mukhtars and land acquisition teams to map affected parcels;

- Identification of target respondents based on updated expropriation lists and preliminary livelihood risk indicators.

SUPPLEMENTARY FIELD STUDY SETTLEMENTS

The Project's Area of Influence includes two directly affected settlements:

- Mazi Neighborhood (Bodrum District): Affected by turbine sites, access roads, and the ETL.
- Gökpınar Neighborhood (Milas District): Affected by forest-based turbine infrastructure.

The following activities were conducted:

TABLE 4-2 SUPPLEMENTARY INTERVIEWS COMPLETED

Category	Planned	Completed
RAP/LRP Household Surveys	12	11
Muhtar Interviews	2	2

Mazi: 11 household surveys were completed. Interviews covered topics such as ownership status, forest use, grazing, agricultural production, and household vulnerability.

Gökpınar: One mukhtar interview and a combined ESIA-LRP household interview were conducted. No private land acquisition is foreseen in this neighborhood.

OBSERVED LIVELIHOOD AND LAND USE PATTERNS

The following key findings were noted:

- Primary income in the region derives from non-agricultural employment, notably in tourism and services.
- Secondary livelihoods include pension income, olive cultivation, livestock husbandry, and beekeeping.
- Use of forest land for economic purposes (e.g., firewood, mushroom collection, beekeeping) has declined significantly due to past forest fires.
- Despite this decline, beekeeping remains a notable activity, including by migratory beekeepers from outside the area. Beekeepers expressed concerns about loss of access to forest routes and floral zones due to the Project.

STRUCTURES AND INFORMAL USERS

The following key findings were noted:

- Two parcels (393/1 and 400/1) include non-residential or seasonally used structures.
- One unregistered residence used by a seven-person household, including four vulnerable individuals, was identified. The structure is used for 10 months per year, and the household relies on livestock-based income.

- All three cases have been included in the scope of the LRP for appropriate compensation and restoration planning.

ACCESS CHALLENGES AND COMMUNITY PERCEPTIONS

The following key findings were noted:

- Two intended respondents could not be reached: one refused participation, and another had passed away. Communication with their legal representatives is ongoing.
- Some land users initially hesitated to participate due to fears of forest damage and livelihood loss. However, with firm-level engagement and direct dialogue, participation improved.
- Overall, local perceptions toward the Project were observed to become more constructive over time, especially where transparent information was shared.

4.1.1.1 LIMITATIONS

Despite careful preparation and adherence to international good practice standards during the April 2025 field study for the Arturna WPP, several limitations affected the depth, coverage, and representativeness of the data collected for the Livelihood Restoration Plan (LRP):

Unreachable or Non-Responsive Users: Although 11 out of 12 targeted RAP/LRP household surveys were successfully completed in Mazi Neighborhood, two users could not be reached:

- One land user lives outside the region and declined to participate.
- Another landowner had passed away; although the heirs were contacted, intra-family disputes and the small size of the affected parcel led them to refuse engagement.
- Efforts to re-engage these users through legal representatives are ongoing.

Informal and Unregistered Structures: One informally occupied structure (no cadastral registration) was identified within the project's Area of Influence and is used by a vulnerable household for 10 months per year. While the structure was included in the LRP scope, the absence of title documentation posed limitations in classifying tenure and establishing compensation eligibility under national frameworks.

Community Hesitancy and Distrust: Initial reluctance among some residents to participate in interviews was observed, particularly due to concerns about forest degradation, loss of forest access, and reduced income from activities such as beekeeping and livestock grazing. These perceptions were influenced by past forest fires and experiences with other infrastructure projects. While most stakeholders ultimately agreed to be interviewed, responses from some participants were cautious or limited in detail.

Low Female Representation: As in many rural areas, female participation in survey activities remained limited. Factors included:

- The dominance of male spaces such as village coffeehouses;

- Cultural norms regarding household representation by male heads;
 - Lack of proactive facilitation from some local leaders.
- Despite these constraints, the research team sought alternative ways to include women, such as approaching them at home or through informal networks.

Forest and Seasonal Land Use Data Gaps: Access to some forested zones and seasonal land use areas (e.g., grazing paths, migratory beekeeping sites) was restricted due to terrain and time constraints. As a result, the team could not fully map the extent of informal or seasonal resource use. However, interviews with several key forest-dependent individuals, including livestock herders and beekeepers, provided indicative insights into these activities and their vulnerability to Project-induced access limitations.

Perceptions Influenced by Project Uncertainty: In both Mazı and Gökpınar, several respondents indicated that their views about the Project were not yet fully formed, as construction had not started and final infrastructure locations (e.g., ETL alignment) remained uncertain. This resulted in some responses lacking clarity on expectations or coping strategies.

5. AFFECTED HOUSEHOLDS, LANDS, AND LIVELIHOODS: BASELINE AND IMPACT ANALYSIS

The sub chapters below present the socio-economic environment of PAPs affected by land acquisition and livelihood impacts.

5.1 DEMOGRAPHIC STRUCTURE OF THE PROJECT AOI

The largest settlement in the ARTURNA WPP AoI area is Mazi Neighborhood, while the smallest is Gökpınar Neighborhood. According to 2024 TURKSTAT ADNKS data², population information is given in Table 5-1.

TABLE 5-1 POPULATION IN PROJECT AFFECTED SETTLEMENTS

Settlement	Total Population	Male Population	Female Population
Mazi	1.169	600	569
Gökpınar	229	112	117
Yeniköy	850	421	429

Source: TurkStat ADNKS, 2024

- Mazi Neighborhood's population is 1,169 people in total. 600 of this population are male and 569 are female. Mazi Neighborhood's population, which was 1,087 in 2017, became 1,169 in 2023.
- Yeniköy Neighborhood's population is 850 people in total. 421 of this population are male and 429 are female. Yeniköy Neighborhood's population, which was 762 in 2017, became 850 in 2023.
- Gökpınar Neighborhood's population is 229 people in total. 112 of this population are male and 117 are female. The population of Gökpınar District, which was 203 people in 2017, became 229 people in 2023.

When official population data and field data obtained from Mukhtar interviews were evaluated, it was observed that there was no significant population change in the settlements within the Arturna Project AoI in the last 10 years.

According to the population data, the 55-64 age group constitutes the weighted segment with 24% in AoI. This rate is followed by the population aged 65 and over. The population aged 18 and under constitutes the lowest percentage with 8% in AoI settlements. Based on this data, it is seen that the average age is high in AoI, and the rate of young and active age population is low. In the AoI, 54% of the population is composed of Primary or secondary school graduates. This data is parallel to the high age average in the AoI. The second weighted segment is composed of High school graduates with 19%; while the uneducated adult population is notable with 3%.

29.2% of households in Arturna AoI consist of two members. Three-member households are second with 25%, followed by three-member and four-member households, respectively. The average household size of the 83 households in the AoI is 3.5.

² <https://data.tuik.gov.tr/Kategori/GetKategori?p=nufus-ve-demografi-109&dil=1>

5.2 ECONOMY AND EMPLOYMENT

Muğla province's economy is predominantly driven by the tourism sector, thanks to its coastal location and natural attractions. However, agriculture remains an important contributor to the local economy with significant production and export value in certain crops. Key agricultural products of Muğla include tomatoes, pomegranates, citrus fruits, almonds, olive oil, eggplant, squash, and cucumber, which collectively provide substantial income for producers. Muğla also holds a prominent place in greenhouse vegetable cultivation – especially in table tomato production – ranking 4th in Türkiye in terms of greenhouse area (nearly 40,000 decares of greenhouse cultivation area). Besides tourism and agriculture, Muğla has notable mining resources (such as the Yatağan lignite coal and Fethiye chrome deposits) and is an important center for marble production. These diverse economic activities form the backdrop of livelihoods in the province.

Recent demographic trends show that Muğla is attracting significant in-migration. According to 2023 TurkStat data, Muğla province ranked third in Türkiye for net internal migration (after Antalya and Ankara). The province's natural features and tourism-driven opportunities are key pull factors drawing people to settle in the region. This influx contributes to a growing service and real estate economy (a developing "rent economy") but also indicates changing socio-economic dynamics that can influence traditional livelihood activities like farming.

5.2.1 HOUSEHOLD INCOME SOURCES AND EXPENDITURE PATTERNS IN THE PROJECT AREA

The livelihood source of the households living in Arturna AoI settlements is presented in the Table 5-2 below according to Muğla YEKA field study findings carried out in July 2024 and April 2025.

When the main livelihood source of the households is evaluated, the weighted slice is Pension income with 25% and then agricultural activities with 20.8%. Business and freelance income is in third place and animal husbandry is the main livelihood source of the households in fourth place.

In the livelihood source evaluated in the second and third degree, it is seen that the households answered agricultural activities and animal husbandry. The reasons for this can be explained as follows, since the average age in the AoI is high, retirement income is the primary source of income, and agriculture and animal husbandry, which bring lower income compared to previous years, are abandoned. Despite this, agriculture and animal husbandry are still an important supplementary source of income and are carried out by households as smaller-scale activities compared to previous years.

TABLE 5-2 SOURCES OF INCOME IN THE ARTURNA AOI

Sources of income	Main livelihood source of the household (%)	Second livelihood source of the household (%)	Third livelihood source of the household (%)
Agriculture (plant production)	20.0	37.1	11.4
Animal husbandry (animal production)	11.4	22.9	11.4
Pension	31.4	17.1	5.7

Sources of income	Main livelihood source of the household (%)	Second livelihood source of the household (%)	Third livelihood source of the household (%)
Beekeeping	0.0	2.9	2.9
Blue-collar paid, salaried work in a factory etc.	8.7	5.7	0.0
Desk/office white-collar paid, salaried work	5.7	0.0	0.0
Business and freelance income (Small tradesmen -grocer, greengrocer, butcher, haberdashery etc.)	17.1	2.9	2.9
Temporary seasonal agricultural/construction work	2.9	0.0	0.0
Income obtained by subcontracting and using machinery and equipment such as tractors to villagers and neighbors	2.9	0.0	0.0
Temporary seasonal tourism work ³	0.0	0.0	2.9
No secondary/tertiary income	0.0	11.4	60.0
Total	100.0	100.0	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

The key points for the villages are summarized below.

Mazı is the only settlement that carries out citrus production as a commercial project. 25-30 tons of sales are made to the domestic market. Among agricultural activities, barley and wheat cultivation has decreased significantly due to pig attacks. Horticulture activities are carried out in sufficient quantities to meet their own consumption. The main commercial agricultural activity, olive cultivation, continues. Before the 2021 fire, it was claimed that Mazi's annual olive oil production was 8000 tons, while after the fire, this amount dropped to 200 tons.

In Yeniköy, horticulture and agricultural activities are carried out to meet their own consumption. Olive cultivation is the only agricultural activity carried out for commercial purposes. An average of 500 tons of olive oil is produced annually.

In Gökpınar, horticulture and agricultural activities are carried out to meet their own consumption. Olive cultivation is the only agricultural activity carried out for commercial purposes. It is stated that an average of 200 tons of olive oil is produced annually.

Expenditures on grocery and feeding expenses, agricultural expenses (diesel, fertilizer, feed, etc.), livestock expenses (feed, veterinarian, etc.) dominate the household budget.

³ Due to the limited number of PAPs (Project Affected Persons) we were able to engage with, the survey results may not fully represent all sources of income in the Area of Influence (AoI).

In the second expense category, market and food expenses lead with 29.3%, followed by livestock expenses with 20.8%. In the third expense category, utility bills rank first at 20.8%.

Household expenditure patterns further illustrate the role of subsistence production and the costs associated with it. Table 5-3 presents the categories of expenses that households spend their annual income on. The data indicates that livestock and agricultural production contribute to household consumption, which keeps grocery shopping as a secondary priority. However, it is evident that the costs are high.

TABLE 5-3 ANNUAL INCOME EXPENSE CATEGORIES

What are the expense categories of your annual income?	First	Second	Third
Grocery and feeding expenses	37.1	28.6	20.0
Agricultural expenses (diesel, fertilizer, feed, etc.)	20.0	14.3	2.9
Livestock expenses (feed, veterinarian, etc.)	25.7	17.1	2.9
Investments in agriculture, trade, industry	5.7	0.0	0.0
Utility bills (water, electricity, etc.)	5.7	20.0	8.6
Health and personal care costs	2.9	11.4	17.1
Educational costs	0.0	5.7	5.7
Clothing and goods (household goods, electronics, etc.) expenses	0.0	0.0	5.7
Interest, foreign exchange, real estate investments	2.9	0.0	5.7
No answer	0.0	0.0	31.4
Total	100	100	100

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

5.2.2 AGRICULTURE AND CROP PRODUCTION

Agriculture is a cornerstone of livelihood for the rural communities in the project's AoI, even as it generally provides more supplementary income than primary income for many households. About 68.6% of surveyed households engage in farming to some extent, though the scale and purpose of cultivation vary. The main commercial crop in this area is olives, with olive cultivation being widespread and forming the only agricultural activity that has a consistent commercial market output. In addition to olives, residents cultivate various garden fruits and vegetables

(such as citrus, particularly the locally famous "*Bodrum tangerine*" in Mazi, as well as other orchard products) and grow staple grains like barley and wheat. However, these latter activities (market gardening and grain production) are largely for subsistence use or fodder rather than for sale. In fact, most households practicing horticulture or field cropping do so to meet their own consumption needs, and only a few families occasionally sell surplus produce (for example, some households take produce to local farmers' markets on a small scale).

TABLE 5-4 ENGAGE IN AGRICULTURAL ACTIVITIES

Are you a farmer or do you engage in agricultural activities?	Number of PAPs	Percent
Yes	24	68.6
No	11	31.4
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

When PAPs were asked whether they expect to lose income from agricultural activities due to the Project, a majority (65.7%) responded "Yes" (Table 5-5).

Another noteworthy data is that a significant proportion of 22.9% of the interviewed PAPs have no idea about the impacts of the Project. This is related to the current location of the Project and the lack of sufficient information about the Project activities.

TABLE 5-5 THOUGHTS ON THE IMPACTS ON AGRICULTURAL ACTIVITIES DUE TO THE PROJECT

Do you think you will lose income from your agricultural activities due to the project?	Number of PAPs	Percent
Yes	23	65.7
No	4	11.4
Don't know	8	22.9
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

When those who anticipated negative impacts were further asked how they expected the project to affect their agriculture income, the most common concern raised was dust pollution. Specifically, many fear that construction works (such as access road construction, excavation, or turbine installation) will generate dust that could settle on their fields and trees, thereby reducing land productivity and lowering crop yields or quality (mentioned particularly in relation to olive trees and olive oil quality). Table 5-6 illustrates the breakdown of responses regarding the nature of expected income loss. Notably, 42.9% of respondents could not specify the

mechanism of impact (“no idea”), even though they felt generally negative about the project – this again points to a lack of detailed knowledge about project activities. About 31.4% explicitly mentioned “yield of the lands and quality of crops (especially olive oil) will decrease due to dust” as their main concern. A small number (around 3%) thought there could be combined effects including land take (expropriation), noise, and dust all together affecting agriculture. Only one person (2.9%) mentioned restricted access to farmlands as a potential issue, and a couple of individuals (5.7%) even voiced a misconception that “the wind turbine will affect the weather and make olive production difficult.” Additionally, 14.2% (5 people) responded along the lines of “our olive groves and lands were taken from us,” indicating that some land acquisition might have already occurred or that they are concerned about land loss. These perceptions highlight dust generation and land loss as the primary fears related to agriculture, underlining the importance of dust control and clear information about land acquisition processes in mitigating community concerns.

TABLE 5-6 INCOME LOSS OPINIONS OF THE PAPS

What kind of an impact will you experience income loss?	Number of PAPS	Percent
No idea	15	42.9
Access to the lands will be restricted	1	2.9
There will be cumulative impacts such as expropriation of land, noise and dust.	1	2.9
The yield of the lands and the quality of the crops, especially for olive oils, will decrease due to dust.	11	31.9
The windmill will affect the weather and make my olive production difficult.	2	5.7
Our olive groves and lands were taken from us	5	14.2
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

In summary, agriculture in the project-affected communities is a vital livelihood activity, mostly geared towards olives for income and various crops for household needs. It has been challenged in recent years by environmental factors (fires, drought) and wildlife (wild boars), and now residents are additionally worried about how the upcoming project may further impact their farming through dust, land loss, or other disturbances. Ensuring that these communities have accurate information and support to maintain crop productivity will be an important aspect of livelihood restoration, given the already fragile state of agricultural yields.

5.2.3 LIVESTOCK AND ANIMAL HUSBANDRY

Animal husbandry is another key component of livelihoods in the AoI, often practiced alongside agriculture. According to the field study, about half of the surveyed households (48.6%) engage in livestock rearing (Table 5-7). Like farming, livestock keeping in the area is generally small-

scale and oriented towards subsistence or supplemental income rather than large commercial operations. Most households raise a few cattle and/or a flock of small ruminants (goats or sheep) primarily for their own consumption needs (meat, milk) and occasional local sales.

TABLE 5-7 ENGAGEMENT IN ANIMAL HUSBANDRY

Do you engage in animal husbandry?	Number of PAPs	Percent
Yes	17	48.6
No	18	51.4
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

Field data on herd sizes indicate that among the 17 households who do raise livestock, most keep a low number of cattle. Out of all surveyed households, only 2 households owned as many as 10 or more cattle, while the vast majority of livestock-owning families had fewer than 10 head of cattle. The average number of large livestock (cattle) per household in the AoI is about 3–4 head. Table 5-8 shows the distribution of cattle ownership: for example, 3 households reported having 4 cattle each, 4 households have 5 cattle each, and so on. Meanwhile, 60% of surveyed households have no cattle at all (either because they do not engage in livestock or they keep only other animals like small ruminants or poultry).

TABLE 5-8 NO. OF CATTLE OWNED

How many cattle do you have	Number of PAPs	Percent
4	3	8,6
5	4	11,4
6	1	2,9
7	1	2,9
8	1	2,9
9	1	2,9
12	1	2,9
24	1	2,9
30	1	2,9
Not engaged	21	60.0

How many cattle do you have	Number of PAPs	Percent
Total	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

Ownership of small ruminants (goats and sheep) is even less common – only 3 households reported having any sheep/goats. As presented in Table 5-9, two households had small flocks (15 goats/sheep for one, and 5 for another), one household had as many as 600 (perhaps this is an outlier case of a larger semi-commercial herd), and the remainder (about 83% of households) had no small ruminants. This indicates that goat/sheep herding is not widely practiced, possibly due to environmental constraints like limited grazing areas.

TABLE 5-9 NO. OF SMALL CATTLE OWNED

How many small cattle do you have?	Number of PAPs	Percent
2	1	2,9
5	1	2,9
15	2	5,7
600	1	2,9
Not engaged	30	82.9
Total	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

In addition to larger livestock, about one-third of households keep poultry (chickens or other fowl). Table 5-10 shows that 30% of households reported owning poultry, with flock sizes typically ranging from 10 to 50 birds. Four households have around 50 chickens each, which might contribute eggs or meat for both home use and possibly small-scale sale, whereas others keep smaller flocks (10–15 birds). Poultry rearing is a common low-cost, low-maintenance supplementary livelihood that also supports household food needs.

TABLE 5-10 NO. OF POULTRY OWNED

How many poultry do you have	Number of PAPs	Percent
10	2	5,7
15	3	8,6
30	1	2,9
35	1	2,9

How many poultry do you have	Number of PAPs	Percent
40	1	2,9
50	4	11,4
Not engaged	23	65.7
Total	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

From these findings, it is clear that livestock production in the AoI is generally small-scale. Many households who keep animals have just a few cattle or a modest number of poultry, primarily aimed at supplementing their diet (milk, meat, eggs) and providing a bit of extra income. Only a couple of households appear to have larger herds that could indicate a more commercially oriented operation.

Community insights and the local mukhtars (village leaders) have pointed out several reasons for the decline or limited scale of animal husbandry in the area:

- **Scarcity of Pasture Land:** The AoI villages have very limited flat grazing lands or designated communal pastures. The terrain is largely sloping and rocky, which is not ideal for grazing larger herds. As a result, there isn't enough natural forage available year-round, constraining how many animals households can raise without external feed.
- **High Dependency on Purchased Feed:** Because natural grazing is insufficient, many livestock owners must buy fodder to sustain their animals. Indeed, among those who engage in livestock, 50% reported that they have to purchase animal feed throughout the entire year (12 months). Only about 5.7% (2 households) said they do not need to buy any feed (likely because they keep very few animals or have some grazing land), and the remainder of respondents without livestock did not answer. This reliance on purchased feed increases the cost of livestock rearing, making it less profitable and more labor-intensive.

TABLE 5-11 DURATION OF FEED PURCHASES FOR LIVESTOCK ACTIVITIES

How many months do you have to buy feed for your livestock activity?	Number of PAPs	Percent
Not engaged	19	54.3
0	2	5.7
12	14	40.0
Total	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

- **Labor Shortage & Youth Migration:** Younger members of these communities have been migrating to urban areas or moving into the tourism and service sectors for employment, as noted earlier. This rural out-migration and shift in job preference means

fewer family members are available or willing to take care of labor-intensive farming and herding activities. Elderly households often cannot maintain large herds alone, leading to downsizing or ceasing animal husbandry.

- **Alternate Economic Opportunities:** The rapid growth of the tourism industry and related service jobs in the region (especially in coastal Muğla) provides alternative income sources that may be more attractive than traditional livestock rearing. Additionally, rising land values and opportunities to earn through rentals or business (the “rent economy”) can reduce the incentive to continue with low-yield agriculture or pastoralism.

Given the lack of grazing land, it’s interesting to note how and where the current livestock are being kept. Households were asked where they feed their animals, and multiple answers were allowed (since many use a combination of strategies):

Table 5-12 summarizes the responses about feeding locations. It shows that the majority of livestock owners feed their animals on their own land (e.g., in private fields or gardens) and/or in barns with purchased feed. Specifically, 37.1% of respondents use their own land for grazing or cut-and-carry feeding, and 34.3% feed animals in a barn/stable with fodder they provide. In contrast, only about 5.7% reported using village common pasture lands. This low usage of village pastures (just 2 households) reflects either the scarcity or inaccessibility of communal grazing areas, or possibly that official pastures are nonexistent in the immediate vicinity. Many households (around half) did not engage in livestock, hence the high “Not engaged” percentages across all categories.

TABLE 5-12 WHERE ANIMALS ARE FED

Where do you feed your cattle and/or sheep?						
Feeding Livestock	Village pasture		On our own land		With feed in the barn	
	Number of PAPs	Percent	Number of PAPs	Percent	Number of PAPs	Percent
No	15	43	4	11.4	5	14.3
Yes	2	5.7	13	36.3	12	33.4
Not engaged	18	52.3	18	52.3	18	52.3
Total	35	100.0	35	100.0	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

The above feeding practices confirm that livestock rearing in the AoI is largely stall-fed or confined to small plots, rather than open grazing over large rangelands. This aligns with the earlier point about feed costs and pasture scarcity.

In terms of overall livestock presence in the area (beyond the surveyed sample), the Project EIA provides some context: for instance, Yeniköy village is noted as having one of the highest concentrations of livestock, with approximately 700 head of cattle in the village herd overall. Gökpınar has about 200 head of cattle, and Mazı around 500 head of cattle. Small ruminant numbers in Mazı were reported around 1000 goats and 700 sheep, which is significant (these likely belong to a handful of shepherd families). Yeniköy and Gökpınar had smaller goat/sheep

numbers (around 150 in Gökpınar, and a few hundred in Yeniköy). Additionally, dairy production is a part of the local livestock economy: in Yeniköy, about 1.2 tons of milk are collected daily at the local milk collection center (by a dairy cooperative, e.g., Toros Dairy), and in Gökpınar around 1 ton of milk per day is collected. These figures illustrate that while individual household herds are small, collectively the villages still maintain a considerable livestock population that yields products like milk on a daily basis. Nonetheless, it is also noted in the EIA that overall agricultural and livestock activity in these villages has declined over time, and that this decline is accelerated more by socio-economic changes (like the expansion of tourism and service jobs and resulting rural depopulation) than by environmental factors such as the 2021 fires or climate change. In other words, many villagers have gradually shifted away from farming and herding as primary livelihoods due to better opportunities and the changing economy in the region.

When asked about the potential impacts of the Project on their livestock activities, most PAPs did not have a concrete idea of what might happen, but they tended to feel wary. Table 5-13 breaks down the anticipated negative effects on livestock by settlement. Overall, 78.3% of respondents who thought there would be negative impacts could not specify the issue ("no idea"), which is a significant finding: it shows a general sense of concern or negativity without specific expectations, likely stemming from uncertainty and lack of information. The remaining responses (which constitute about 21.7% of the total) highlighted a few concerns:

- Some fear that increased traffic of heavy project vehicles could directly harm their animals, either by accidental collisions ("animals may be harmed or crushed by heavy vehicles") or by scaring them (making animals panic and possibly injure themselves or avoid crossing roads).
- Related to this, a few people noted that livestock often cross village roads to reach grazing spots, so more traffic could pose a risk to animals moving around, and access to grazing areas might become difficult if roads are busier or fenced off.
- The specific breakdown by village shows that in Gökpınar, 40% of those responding (apart from "no idea") mentioned such vehicle-related risks in various forms. In Mazi, 10% mentioned the risk of animals being crushed. In Yeniköy, interestingly, every respondent answered "no idea" (100%), indicating no specific concern identified there beyond a general uncertainty.

TABLE 5-13 WHAT KIND OF IMPACTS ARE EXPECTED ON LIVESTOCK ACTIVITIES

Settlement		What adverse effects can negatively affect livestock?						Total
		No idea	Animals may be harmed by heavy vehicles	Animals may be afraid of heavy vehicles and may be in danger of being crushed.	Animals may be crushed	Most animals cross the roads while going to graze, which may pose a risk	Access to pasture becomes difficult	
Gökpınar	%	60	10	10	0	10	10	100
Mazi	%	90	0	0	10	0	0	100

Settlement		What adverse effects can negatively affect livestock?						Total
		No idea	Animals may be harmed by heavy vehicles	Animals may be afraid of heavy vehicles and may be in danger of being crushed.	Animals may be crushed	Most animals cross the roads while going to graze, which may pose a risk	Access to pasture becomes difficult	
Yeniköy	%	100	0	0	0	0	0	100
Total	%	78.3	4.3	4.3	4.3	4.3	4.3	100

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

5.2.4 BEEKEEPING (APICULTURE)

Beekeeping has historically been one of the most important livelihood activities in Muğla, and particularly in these forested communities, due to the region's famed pine honey production. Before 2021, Muğla province was renowned as the top producer of pine honey in Türkiye, accounting for a significant share of the national and even global pine honey supply (Muğla alone produced roughly 85–90% of Türkiye's pine honey, which itself makes up the majority of the world's pine honeyearth.org). The devastating forest fires in summer 2021, however, ravaged huge swathes of pine forest in Muğla and dealt a severe blow to apiculture. The pine trees in this region host a scale insect that is essential for pine honey production; when the trees burned, the local ecosystem for honey production collapsed. As a result, many beekeepers lost their bee boxes, forage area, and income. According to local accounts, nearly every household in the villages was engaged in beekeeping before 2021, but in the aftermath of the fires, a large proportion of families have abandoned it as a livelihood.

Within Project AoI, only about 25.7% of surveyed households are still practicing beekeeping. This indicates that three out of four households have given up beekeeping, which aligns with the narrative of drastic decline post-2021. Those who continue are often doing so at a much-reduced scale or have adapted by moving their hives to other regions (migratory beekeeping).

TABLE 5-14 ENGAGEMENT ON BEEKEEPING

Do you engage on beekeeping?	Number of PAPs	Percent
Yes	9	25,7
No	26	74,3
Total	35	100,0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

For the few households that still keep bees, the scale can vary but generally remains limited. As shown in Table 5-15, reported numbers of beehives per household range from 10 to 80

among the respondents. Most of these beekeepers have on the order of one or a few dozen hives. One household had 80 hives, which is significant, but it's unclear if these are fully active given the reduced forage in the area. By comparison, before the fires, it was not uncommon for dedicated beekeepers in the region to have hundreds of hives. The current figures reflect a fraction of former capacities.

TABLE 5-15 NUMBER OF BEEHIVES OWNED

How many beehives do you have	Number of PAPs	Percent
10	1	2,9
15	1	2,9
20	2	5,7
50	1	2,9
70	1	2,9
80	1	2,9
Not engaged	27	77.1
Total	35	100.0

Source: Muğla YEKA Field Study Findings, July 2024- April 2025

Beekeeping in the area is closely tied to the forest lands. Survey responses and consultations indicated that people place their hives in several key locations:

- **Within the village** – some keep hives in their yards or nearby plots in the village itself.
- **On Gökpınar Mountain** – this is a highland area mentioned as a site for placing beehives, likely due to presence of floral resources or pine stands that survived.
- **Areas to be expropriated or where the project is planned** – a few respondents noted that they currently have beekeeping activities in locations that overlap with the project's land needs.

Table 5-16 shows the distribution of where beekeeping is carried out. It can be seen that 14.3% say they keep bees inside the village, and smaller percentages (2.9% each) mention Gökpınar Mountain, the project site, or the specific parcels to be acquired for the project. The majority (77.1%) did not engage in beekeeping, as noted earlier.

TABLE 5-16 BEEKEEPING ACTIVITIES

Where beekeeping is carried out	Number of PAPs	Percent
Not engaged	27	77.1

Where beekeeping is carried out	Number of PAPs	Percent
Gökpınar Mountain	1	2.9
Inside the village	5	14.3
It is carried out in areas that will be expropriated in the village.	1	2.9
In areas where there is a project in the village	1	2.9
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

The fact that a few beekeepers have hives in the planned project area or land to be acquired is an important consideration for the LRP. It suggests that those individuals could be directly affected by construction activities (disturbance to bees from noise/vibration) or by losing access to those sites (if, for example, the project restricts entry for safety reasons). This will need to be managed carefully to avoid further harm to an already struggling livelihood.

When asked about their expectations of the project's impact on beekeeping, the responses from the community were again largely pessimistic among those who do keep bees. Table 5-17 illustrates that none of the beekeepers expect a positive or neutral outcome – all foresee some negative impact. Overall, 77.1% of the total respondents (mostly those not engaged in beekeeping) said “no impact will occur” on beekeeping, but this likely reflects that they are not involved in beekeeping themselves. Focusing on the beekeepers: the concerns raised include:

- Bee flight patterns being affected: 5.7% mentioned that the flight of bees will be negatively affected. This could be due to turbine blades (wind and noise) or dust and disturbance disorienting the bees.
- Loss of bees due to turbines: a couple of respondents (2.9%) feared that “the bees will be affected by the wind turbine and all my bees will disappear.” This suggests a worry that either the electromagnetic effects or the mechanical movement of turbines could drive bees away or harm them.
- Difficulty in foraging (pollination issues): 5.7% said “it is difficult for bees to collect pollen from flowers due to pollution of the environment.” This likely refers to dust or emissions from construction machinery making the environment less suitable for bees and flowers.
- Changes in wind patterns: 8.6% (3 people) stated “the winds will be negatively affected. I am a beekeeper in those areas.” They may be concerned that turbines will alter local wind flows or microclimate, impacting how bees navigate or how the pine honeydew is produced.

TABLE 5-17 PERCEIVED IMPACTS BY PAPS ON BEEKEEPING

Expected impacts on Beekeeping	Number of PAPS	Percent
No impact will occur	27	77.1
The flight of bees will be negatively affected	2	5.7
The bees will be affected by the windmill and all my bees will disappear.	1	2.9
It is difficult to collect pollen from flowers due to the pollination of the environment.	2	5.7
The winds will be negatively affected. I am a beekeeper in those areas.	3	8.6
Total	35	100.0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

It's important to interpret these findings in context: the vast majority of those who are not beekeepers see no issue, whereas every beekeeper respondent anticipates problems. This divergence suggests that perceptions of impact are highly correlated with one's stake in the activity – which is expected. For LRP planning, the key point is that beekeepers form a vulnerable group who have already suffered a major shock (the 2021 fires) and are now worried about further impacts on their remaining livelihood. They will require targeted engagement to ensure the project does not inadvertently exacerbate their losses. Measures might include scheduling works outside of critical foraging seasons, creating buffer zones around apiaries, or even assisting beekeepers with temporary relocation of hives if needed. Moreover, given that some concerns (like “wind turbines will make bees disappear”) may stem from misinformation or fear, transparent communication and perhaps expert consultation on apiculture and wind energy could help address unfounded fears while validating legitimate ones (such as dust control). A public information and participation meeting was held in 8th March 2023 in Fesleğen Village Coffeehouse.

Finally, it was noted by locals that current beekeeping in the area is often migratory – meaning some beekeepers move their hives to other regions during parts of the year to take advantage of seasonal blooms or to avoid the degraded local forage. Any project impact assessment should consider the seasonal movements of these beekeepers as well, since they might only be present in the project area during certain months.

5.2.5 USE OF FOREST RESOURCES (MUSHROOMS, PLANTS, AND FIREWOOD)

Beyond farming and raising animals, the rural households in the AoI also traditionally rely on surrounding forests for supplemental livelihood resources. These forests are sources of wild products such as mushrooms (including the prized morel mushroom), medicinal or aromatic plants, and firewood. According to the field study, 68.6% of surveyed households collect products from the forest, which is a significant majority. This indicates that forest foraging and gathering remain common practices, either for subsistence (e.g., household consumption of

mushrooms, herbs, and use of firewood for heating) or for income (morel mushrooms, in particular, can fetch good prices and are an important seasonal income for some villagers).

Another livelihood activity was asked to PAPs whether they used the forests around their village/neighborhood to collect mushrooms, medicinal plants or firewood.

PAPs benefiting from forests stated that they benefit from forests by collecting mushrooms, plants and wood. 70,8% of PAPs who do these activities are of the opinion that the Project will negatively affect these activities and forests.

TABLE 5-18 PAPs' UTILIZATION OF SURROUNDING FORESTS

Utilizing forests	Number of PAPs	Percent
Yes	24	68,6
No	11	31,4
Total	35	100,0

Source: Muğla YEKA ESIA Field Study Findings, July 2024- April 2025

The heavy reliance on forests means any impacts on forest access or quality could have a direct effect on livelihoods. When asked about how the project might affect these forest-gathering activities, approximately 70.8% of those who use the forest believed the project will negatively impact their ability to collect forest products. Some of the specific concerns voiced by PAPs who forage in the forest include:

- **Loss of Forest Area:** People worry that project development will involve cutting down trees or restricting areas, thereby reducing the area where they can go to gather mushrooms and plants. Statements like "land will be lost and collection will not be possible" or "forest land will decrease" were expressed, reflecting a fear of permanent loss of foraging grounds.
- **Reduced Availability of Products:** Linked to the above, they expect that with fewer trees and undisturbed areas, mushroom yields will decline ("mushrooms are decreasing as trees and area decrease"). The morel mushroom was specifically mentioned as an important source of income that could be affected if its forest habitat is disturbed.
- **Dust and Pollution:** Several mentioned that dust from construction could settle on plants and mushrooms, harming their growth or making collection undesirable ("dust will affect trees and mushrooms", "deterioration of land quality"). Others mentioned general "environmental pollution" and "natural structure will deteriorate," suggesting worry that the overall forest ecosystem health will decline (possibly affecting regeneration of both plants and fungi).
- **Access Restrictions:** There is a concern that the project will restrict entry to certain forest areas, either for safety or security reasons, meaning villagers might be barred from their usual gathering sites ("Project will restrict entry to areas where mushrooms and medicinal plants are located"). If land is fenced or marked off, even temporarily, it could coincide with mushroom season and prevent locals from collecting, thus impacting their seasonal earnings.

- **Cumulative Forest Impact:** Coming after the 2021 fires, which already reduced forest resources, people are sensitive to any further loss. A comment like “natural structure will deteriorate” also implies fear that the project could be another blow to an ecosystem still recovering from wildfire damage.

It is clear that forest gathering is not just a hobby but a part of the local livelihood portfolio. Activities like morel mushroom collection can be an important cash income in spring, and firewood collection is essential for heating in winter for many rural households. Therefore, any project activities involving land clearing, blasting, road building, or forest access control need to be planned with mitigation measures. Communities should be informed about where the impact will actually occur (it may be a limited footprint, not affecting the entire forest), and alternative arrangements (like providing access elsewhere or timing construction outside of peak mushroom season) could be considered. The concerns listed above demonstrate that without proper management, there is a risk of livelihood impact on forest resource users. It will be important to clarify the actual extent of the project’s forest disturbance to the PAPs – many of their fears might be allayed by understanding that the wind farm will only affect a certain limited area. Conversely, if significant forest areas are indeed to be cleared, then compensation or livelihood substitution measures for those losses should be integrated into the LRP.

In conclusion, the baseline assessment of economy and livelihoods in the Arturna Project area highlights a community that, while increasingly supported by pensions and experiencing changes due to broader economic shifts, still heavily relies on traditional activities (farming, livestock rearing, beekeeping, and forest gathering) for subsistence and supplemental income. These activities have been under strain from environmental events (wildfires, drought) and development trends (tourism, out-migration) even before the project. The community’s perceptions gathered during the ESIA field study indicate a prevalence of concern that the project could further impact these already vulnerable livelihood activities. This underscores the need for the Project’s Livelihood Restoration Plan to address potential impacts on agriculture, livestock, apiculture, and forest resource use. By strengthening positive synergies (for example, exploring agro-tourism or supporting modern farming techniques) and mitigating negative impacts (such as dust control, traffic management, and ensuring access to resources), the project can help sustain and even improve the livelihoods of local residents in the long term.

6. LIVELIHOOD IMPACT ASSESSMENT

The sub chapters below provide a detailed assessment of livelihood impacts due to the Project.

6.1 PROJECT IMPACT SUMMARY

Based on the above baseline findings, the livelihood-related risks and impacts of the project can be summarized and assessed in detail. The ESIA and LRP (Livelihood Restoration Plan) process have identified a range of social impacts on land-based livelihoods in the Area of Influence. These include both direct impacts (such as loss of land or resources due to land acquisition) and indirect impacts (such as reduced productivity from environmental disturbances). The affected communities – who mainly practice agriculture, grazing, and beekeeping – have clear expectations that the project should prevent or mitigate these impacts to the extent possible. In line with EBRD Environmental and Social Requirements and IFC Performance Standards, the project will implement a suite of management plans (e.g. a detailed LRP, Stakeholder Engagement Plan, Community Health & Safety Plan, etc.) to avoid, minimize, and compensate for livelihood losses.

Table 6-1 presents a summary of the key livelihood-related impacts identified, the project phase during which they occur, and the corresponding mitigation measures proposed. This revised table incorporates the ARTURNA-specific socio-economic context – highlighting issues like olive groves, beekeeping, and forest resource use – and it outlines targeted measures to address the community concerns documented in the baseline.

TABLE 6-1 IDENTIFIED LIVELIHOOD-RELATED IMPACTS AND PROJECT PHASES

Impact Topic	Project-Affected People (PAPs)	Phase	Impact Description	Suggested Mitigation Measures
Construction related impacts on Lands and Livelihoods	Local landowners, smallholder olive farmers, herders, beekeepers, forest product collectors (mushroom/herb/firewood gatherers) in the AoI	Primarily Construction; residual in Operation	<ul style="list-style-type: none"> - Dust emissions may impair olive flowering, reduce olive oil quality, and affect bee foraging behavior. - Heavy vehicle traffic may disturb livestock, damage fencing or water access points. - Informal users of treasury or forest lands may face livelihood disruptions during construction. - Temporary loss of access to mushroom/plant collection areas or grazing paths during civil works. - Beekeepers using land near Gökpınar and Mazı may experience yield drops due to dust, vibration, or displacement. 	<ul style="list-style-type: none"> - Limit construction traffic speed to <30 km/h near grazing or olive zones; post visible warning signs. - Schedule dust-generating works outside olive flowering season (spring); water roads ≥ 3x/day in dry periods. If the contractor fails to implement dust control measures, any resulting crop losses should be fully compensated. - Identify vulnerable beekeepers; offer hive relocation support, buffer screens, or compensation. - Micro-site turbines and roads to avoid high-value olive groves, active apiaries, and informal grazing areas. - Restore cleared areas with native and bee/pollinator-friendly vegetation. - Maintain/restore access to forests and pastures; map key footpaths pre-construction with muhtars. - Compensate land take per LRP framework; include transitional income support where needed.
Impacts on Vulnerable Groups	Elderly-headed households, landless forest users, low-income PAPs, female-headed or disabled individuals relying on subsistence activities	Construction and Operation	<ul style="list-style-type: none"> - Elderly PAPs and disabled individuals may face mobility and health risks during prolonged works (dust, noise, restricted access). - Informal users of treasury or forest lands may lose income sources but be ineligible under Turkish compensation laws. - Many PAPs unaware of rights or LRP entitlements due to limited communication access or literacy. - Without tailored measures, existing poverty may deepen due to cumulative livelihood loss. • Exclusion of women and youth from project jobs due to systemic gender inequality and low participation in technical fields, • Risks of discrimination, harassment, and GBVH in camps 	<ul style="list-style-type: none"> - Update vulnerability register during LRP implementation; use to prioritize support. - Provide transitional input-based support (e.g. tools, fodder, ruminants) for non-landowners (forest users, herders). - Conduct household-level consultations for vulnerable PAPs; use oral/visual materials. - Prioritize vulnerable households in non-land livelihood restoration (e.g. poultry, apiary revival, market access). - Monitor household resilience (food security, income) during and post-construction. - Strengthen local grievance channels (muhtars, CLOs); ensure feedback is tracked and responded to sensitively.

Impact Topic	Project-Affected People (PAPs)	Phase	Impact Description	Suggested Mitigation Measures
			<ul style="list-style-type: none"> Traditional gender roles may restrict women's mobility and participation in decision-making processes related to resettlement and compensation. This can result in their needs and concerns being overlooked, exacerbating the negative impacts of displacement. In many rural areas of Türkiye, women are less likely than men to hold formal jobs or own land, making them more dependent on informal livelihoods and family networks. Resettlement can disrupt these fragile support systems, leaving women with fewer resources to adapt. In rural Türkiye, women often contribute significantly to agricultural activities and household-based production, typically without formal recognition or pay. Resettlement may sever their access to land and livestock, undermining both their economic contributions and food security. Since many women in Muğla are engaged in informal, seasonal, or care-related work, they may not be officially registered as landowners or wage earners. This can lead to their exclusion from compensation schemes that prioritize formal employment or documented land use. elderly women, those with limited mobility, and seasonal migrant workers face compounded challenges during resettlement, including reduced access to remedy and benefit-sharing mechanisms, limited ability to relocate independently, and increased risk of social isolation. 	

Impact Topic	Project-Affected People (PAPs)	Phase	Impact Description	Suggested Mitigation Measures
			<ul style="list-style-type: none">Women are frequently primary caregivers for children and elderly family members. Relocation can increase their workload due to unfamiliar environments, longer distances to schools and health services, and reduced community support, further limiting their ability to engage in income-generating activities	

6.2 ECONOMIC DISPLACEMENT IMPACT

No physical resettlement is expected in the Arturna WPP, as there are no residential or commercial structures within the Project footprint. However, the Project is anticipated to cause temporary or permanent economic displacement due to land acquisition, restricted access to seasonal natural resources, and disruption of traditional land-based livelihood practices.

In Arturna neighborhood, certain households are engaged in seasonal livestock grazing, olive and fig cultivation, and beekeeping, particularly in forest-interfacing or treasury lands. Key risks identified include:

- **Loss of access to seasonal grazing areas** due to construction of turbine pads and internal roads across forest and treasury land traditionally used by local herders.
- **Damage to productive trees (olive, fig) or access paths** from machinery, dust emissions, and road construction.
- **Disruption of beekeeping activities**, especially in dust-prone areas close to turbine platforms or along internal roads.
- **Increased risk of accidents involving free-roaming animals**, especially during transportation of materials and heavy equipment.
- **Perceived or actual limitations** on traditional land use (e.g., grazing, harvesting, beekeeping) due to safety concerns, noise, or unclear boundaries around Project areas.

A vulnerable household has been identified in Arturna, where the main source of livelihood is dependent on seasonal grazing and informal access to natural resources, and the household includes elderly and disabled members. This household is at higher risk of partial livelihood loss due to restrictions on access to nearby grazing areas and forest resources.

Key Livelihood Mitigation Measures

In alignment with IFC PS5 and EBRD ESR5, the Project will apply the following mitigation measures specifically tailored to Arturna:

- Preparation and implementation of this Livelihood Restoration Plan (LRP), including Arturna-specific vulnerability considerations.
- Site-specific consultation with affected households in Arturna, including identification of asset losses and alternative access needs.
- Provision of full compensation for any trees, crops, fences, or grazing access lost due to land use or damage during construction.
- Interim support (e.g., fodder or transportation assistance) for households temporarily losing access to seasonal pastures.
- Relocation support for beehives, especially for apiaries located within 200 meters of construction zones.
- Prioritization of affected Arturna residents for unskilled employment opportunities during construction.
- Deployment of a Community Liaison Officer (CLO) to monitor land access impacts and ensure field-based grievance resolution.
- Strict enforcement of construction boundaries to prevent unintentional off-site damage to assets or land used for grazing.

- Inclusion of Arturna-specific engagement and LRP implementation in the Stakeholder Engagement Plan (SEP).
- Maintenance of an accessible, offline grievance mechanism, allowing low-literacy and elderly residents to submit concerns

Table 6-2 presents an updated assessment of the potential socio-economic impacts on land and livelihoods associated with the Arturna Wind Power Project. Unlike large-scale or multi-settlement projects, the Arturna Project affects a single rural neighborhood (Mazı) with limited but contextually significant reliance on land-based livelihoods, including seasonal grazing, olive and fig cultivation, and small-scale beekeeping. Although no physical resettlement is expected, temporary or permanent economic displacement risks may arise for a small number of households, including a vulnerable household dependent on informal access to forest and treasury lands. The impact assessment reflects these localized dynamics, with sensitivity ratings adjusted to reflect the vulnerability and informality of land use, and the limited number but high dependency of affected users. Table 6-2 outlines expected impacts across the construction, operation, and decommissioning phases, considering their likelihood, magnitude, and mitigation effectiveness.

TABLE 6-2 SOCIO-ECONOMIC IMPACTS – LAND AND LIVELIHOODS

Category	Construction	Operation	Decommissioning
Type of impact	Direct	Indirect	Direct
Receptor	Arturna AoI Mazı Neighbourhood (including 1 vulnerable household)	Arturna AoI Community (pasture/cultivation users)	Arturna AoI Community
Receptor sensitivity	High	Medium	Medium
Nature of impact	Negative (-)	Negative (-)	Negative (-)
Extent	Local/Site-level	Local/Site-level	Local/Site-level
Duration	Short-term to medium (seasonal)	Long-term (restricted land use continuity)	Short-term
Number of Households	1–3 directly affected; indirect seasonal users unknown	Low (1–2 potentially)	Same as construction
Likelihood	Very likely	Possible	Probable
Magnitude of effect	Small–Medium	Small	Small
Impact significance (w/ mitigation)	Moderate	Minor	Minor
Residual impact	Low	Low	Insignificant
Irreplaceable loss risk	Unlikely (compensable)	None	None
Reversibility	Reversible	Reversible	Reversible

Category	Construction	Operation	Decommissioning
Mitigation effectiveness	Effective with field monitoring and direct household support	Effective	Easy and effective
Confidence level	High	Medium	High

6.3 AFFECTED PRIVATE LANDS

The Arturna Wind Power Project will be implemented across rural areas of Muğla Province, specifically in the following settlements:

- Mazi (District: Bodrum) – Direct land acquisition, including 14 individually owned private parcels, affected by turbines, access roads, and the switchyard.
- Gökpınar (District: Milas) – All components are located on state-owned forest land; no private land acquisition is required.
- Yeniköy (District: Bodrum) – Potential access road alignments may cross forest land near this area; currently under cadastral verification.

As of November 2025, project infrastructure intersects with 16 privately owned parcels . These include:

- Four turbine foundations located on private land parcels (393/10, 393/15, 396/1, 400/1),
- One switchyard and internal access roads crossing private parcels (notably 400/1, 391/3, and 393/22),
- Two parcels fully acquired for road construction: 393/21 and 393/28.

All acquisitions are being conducted under Expropriation Law No. 2942, ensuring compensation at full replacement cost. Informal users are addressed in line with IFC PS5/EBRD ESR5 and included in the Livelihood Restoration Plan where economic displacement is identified.

A summary of the affected privately owned parcels is presented in Table 6-3:

TABLE 6-3 THE PRIVATE LANDS TO BE AFFECTED BY THE PROJECT LAND ACQUISITION

Province/District/Neighborhood	Block/Parcel No	Ownership Type	Description	Total Area (m ²)	Acquired Area (m ²)	Easement Area (m ²)	Land Use Purpose
Muğla/Bodrum/Mazi	391/3	Private Parcel	Idle house + field	11,796.37	2,376.03	0.00	Access Road
	393/10	Private Parcel	Agricultural	9,037.36	7,003.82	0.00	Turbine
	393/15	Disputed	Disputed	355,886.37	0.00	29,767.94	Road + Turbine
	393/21	Private Parcel	Agricultural	3,563.49	3,563.49	0.00	Access Road
	393/22	Private Parcel	Agricultural	6,493.25	1,128.01	0.00	Access Road

Province/District/Neighborhood	Block/Parcel No	Ownership Type	Description	Total Area (m ²)	Acquired Area (m ²)	Easement Area (m ²)	Land Use Purpose
	393/25	Private Parcel	Agricultural	385.20	62.32	0.00	Access Road
	393/26	Private Parcel	Agricultural	788.34	384.12	0.00	Access Road
	393/27	Private Parcel	Agricultural	340.64	81.46	0.00	Access Road
	393/28	Private Parcel	Agricultural	258.16	258.16	0.00	Access Road
	393/29	Private Parcel	-	773.15	74.11	0.00	Access Road
	396/1	Private Parcel	Agricultural	14,352.60	8,909.73	0.00	Turbine
	400/1	Private Parcel	Agricultural	13,360.97	8,337.43	0.00	Switchyard + Road

The Arturna Wind Power Project will be implemented across rural areas of Muğla Province, specifically in the following settlements:

- Mazı (District: Bodrum) – Direct land acquisition is required for privately owned parcels, including those affected by turbine foundations, internal access roads, and the switchyard;
- Gökpınar (District: Milas) – All components are located on state-owned forest land; no private land acquisition is required;
- Yeniköy (District: Bodrum) – Potential access road alignments may cross forest land near this area; subject to final design verification.

All private land acquisitions are conducted under Expropriation Law No. 2942, with compensation provided at full replacement cost. Partial acquisition cases may trigger additional economic impacts if:

- The acquired portion constitutes 20% or more of a household's total productive landholding;
- The residual land becomes unusable due to fragmentation or access disruption;
- There are losses of secondary assets, including wells, fences, storage buildings, or access paths.

These factors will be assessed through parcel-level and household-level surveys to determine eligibility for livelihood restoration support in line with the IFC PS5. A participatory approach will be used, including:

- Cadastral verification and GIS mapping,

- Village-level consultations with mukhtars and local agricultural authorities,
- Household interviews to assess baseline income sources and vulnerability status.

In addition, the Project will identify and support informal users of forest and treasury lands, such as goat herders, seasonal beekeepers, or fuelwood gatherers, who may lack formal land rights but rely economically on these lands. In accordance with PS5, these users will be integrated into the LRP through:

- Field-based verification and transect walks,
- Consultation with local stakeholders (including mukhtars, forestry officers, and community members),
- Provision of transitional livelihood support, including in-kind assistance such as fodder, beekeeping inputs, or negotiated access to alternative grazing zones.

To ensure transparent and inclusive implementation:

- Information on eligibility, compensation, and grievance redress will be provided through the Stakeholder Engagement Plan (SEP) and dedicated LRP consultations;
- The Project will establish a monitoring system to ensure that all affected parties—regardless of tenure status—are adequately supported.

In addition, one informal household residing year-round within the Mazi project footprint was identified during fieldwork in April 2025. The household consists of seven individuals, including four vulnerable persons, and sustains its livelihood through livestock grazing on affected land. Although not a registered landholder, this household is considered economically displaced and has been formally included in the Livelihood Restoration Plan (see Section 6.3 for tailored measures).

Orphan Land

Orphan land refers to small, fragmented parcels of land that are left behind or rendered unusable due to project-related land acquisition. These parcels are often too small, irregularly shaped, or isolated to support viable agricultural or economic use. Orphan land typically results from partial land acquisition for infrastructure projects like wind farms, where only a portion of a landholding is taken, leaving the remainder economically nonviable or inaccessible. This can lead to economic displacement for affected landowners and users, especially those engaged in subsistence farming or informal land use, as they may lose critical livelihood resources without formal recognition or compensation.

Following the field survey for the ETL, the presence of any orphan or economically unviable land will be assessed and, if identified, the findings and corresponding entitlements will be included in the LRP addendum.

Where land acquisition or restrictions on land use affect only part of a person's landholding, but the remaining land becomes economically unviable, the project should offer to acquire the entire property and provide full compensation to relevant PAPs.

6.4 IMPACTS ON FOREST AND TREASURY LAND USE & INFORMAL USERS

This section assesses the potential livelihood impacts related to the Project's use of state-owned forest and treasury lands, with a focus on informal and customary use by surrounding communities. Although such lands are not subject to private ownership or agricultural registration, they play an essential role in rural livelihoods through activities such as seasonal grazing, beekeeping, and non-timber forest product (NTFP) collection. Two main sub-sections are presented:

- **Use of Forest Land in Mazi and Gökpınar:** Based on field visits and local interviews conducted in April and July 2025, this section identifies forest-based livelihood practices near turbine, road, and ETL alignments.
- **Use of Treasury Land in Mazi and potential access points to Yeniköy:** Although these lands are not being expropriated, construction-related restrictions may temporarily limit access to informally used spaces.

In line with IFC PS 5 and EBRD ESR5, the Project will recognize the rights and needs of informal users and ensure access to transitional livelihood support where economic displacement is confirmed, regardless of tenure status.

6.5 USE OF FOREST LAND (MAZI AND GÖKPINAR)

All turbine locations within Gökpınar, and most turbine foundations in Mazi, are located on state forest land. These forest lands are regulated under Forest Law No. 6831 and will be accessed through long-term usufruct permits. While there is no formal cultivation or residential occupation of these lands, field consultations in April and July 2025 identified multiple informal and seasonal uses by residents of Mazi and nearby rural areas.

Key forest-based uses observed include:

- Seasonal goat grazing, particularly at the forest peripheries around the Mazi hillsides and ridgelines;
- Mobile beekeeping, with hives often placed at the forest edge or clearings near forest roads;
- Collection of non-timber forest products (NTFPs) such as wild herbs (e.g. thyme, oregano), pine resin, and firewood for household consumption.

Such uses are not formally registered and are therefore not eligible for compensation under Turkish expropriation law. However, PS5 provides that users who lose access to resources essential for subsistence or income generation should be included in livelihood restoration efforts, regardless of legal title.

While the Project's permanent forest footprint is limited, construction-phase activities (grading, fencing, road opening, and tower erection) may result in temporary disruption of grazing routes, loss of access to hive locations, and fragmentation of customary forest-use

zones. The impact is particularly acute in the late summer and early fall when grazing and beekeeping activities peak.

6.6 TREASURY LANDS (MAZI AND POTENTIAL ACCESS TO YENİKÖY)

- Some sections of internal access roads and the energy transmission line (ETL) intersect treasury-owned land parcels within Mazi. These lands are not subject to outright expropriation but will be accessed through easement rights granted by the Treasury. Field observations and stakeholder interviews suggest that such areas are occasionally used for:
- Connecting paths for livestock movement across grazing areas;
- Movement corridors for small agricultural machinery and livestock between scattered plots;
- Transit access for mobile beekeepers positioning hives near forest edges.

Although no permanent economic displacement is expected due to these uses, temporary restrictions (e.g. trenching, machine movements, fencing) during the construction period may disrupt:

- Seasonal livestock herding across parcel boundaries;
- Access of informal users to forested or adjacent productive areas;
- Informal movement corridors between forest edge and privately held agricultural plots.

These temporary disturbances will be addressed through the LRP framework, particularly via:

- Field-level consultations and verification with affected households and mukhtars;
- Provision of transitional support (e.g. alternate access arrangements, fodder, in-kind assistance) for any informal user demonstrating economic dependence;
- Grievance redress and follow-up monitoring to ensure that informal impacts are documented and mitigated in a timely and transparent manner.

6.7 IMPLICATIONS FOR THE LIVELIHOOD RESTORATION PLAN

The Livelihood Restoration Plan (LRP) acknowledges that informal users of forest and treasury lands—including seasonal herders, mobile beekeepers, and subsistence collectors—are among the most vulnerable to unrecognized economic displacement during the construction and operation of the Arturna Wind Power Project.

To mitigate these risks and ensure inclusion in accordance with IFC PS5 and ESR5, the following livelihood restoration measures will be implemented:

- Participatory verification of informal land/resource users through interviews with village mukhtars, forestry administration, and local livestock or beekeeping cooperatives in Mazi and surrounding areas;
- Transitional livelihood support for economically displaced informal users, including:

- Fodder provision for livestock during disrupted grazing seasons;
- Relocation support for mobile beekeepers whose hives must be moved due to construction activity;
- Restoration or rerouting of blocked access paths to forest resources;
- Entitlement to non-cash compensation (e.g. beekeeping equipment, seed kits, grazing access passes) for users experiencing significant but temporary livelihood interruption;
- Monitoring of access restrictions and effectiveness of restoration measures, especially during the construction phase when roads, fencing, or laydown areas are active;
- Dedicated grievance redress pathways designed for mobile, seasonal, or unregistered users (e.g., anonymous drop-box, mukhtar-based reporting, or forestry liaison channels).

The Entitlement Matrix in Chapter 7 outlines eligibility criteria and support options for informal forest and treasury land users, ensuring these groups are not excluded from project benefits.

TABLE 6-4 TYPES OF ANTICIPATED DAMAGE AND IMPACTS

Damage Type	Description
Dust-Related Crop Loss	Dust emissions from unpaved access roads near olive groves in Mazı during excavation and heavy vehicle traffic may reduce yield during flowering and fruit development.
Damage to Productive Trees	Olive trees bordering access routes and construction zones (e.g., 393/22, 391/3) may be damaged by machinery, soil compaction, or accidental pruning.
Damage to Agricultural Assets	Stone walls, irrigation pipes, and fences along expropriated parcels may be unintentionally damaged during road construction or equipment mobilization.
Beekeeping Disruption	Road construction and turbine works near forest margins may force mobile beekeepers to temporarily relocate hives, especially in spring and early summer.
Loss of Informal Access	Temporary fencing, trenching, or material storage may block goat herders' seasonal paths or inhibit forest-edge collection of fuelwood and herbs.
Soil Compaction / Runoff	Heavy machinery movement may compact soil and alter drainage on adjacent agricultural lands, affecting germination and productivity.

6.8 VULNERABILITY ASSESSMENT AND INCLUSIVE LIVELIHOOD RESTORATION

IFC defines vulnerable individuals or groups as those who, due to their social identity or status, are more likely to be adversely affected by project impacts, and may experience limited capacity to anticipate, cope with, resist, or recover from these impacts. Such status may be linked to age, gender, income level, literacy, disability, or informal use of land and natural resources. This section will guide the implementation of inclusive livelihood restoration activities, ensuring that both formal landowners and informal users—including economically or socially vulnerable individuals—are recognized, compensated, and supported in line with IFC PS5 and EBRD ESR5 and good international industry practice.

In accordance with IFC PS5 and EBRD ESR5, vulnerable groups in the Arturna Project Area of Influence (AoI) were identified through field-based socio-economic surveys, mukhtar interviews, and institutional consultations conducted in July 2024 and April 2025 across the settlements of Mazı, Gökpınar and Yeniköy.

Table 6-5 summarizes identified vulnerable groups across the settlements.

TABLE 6-5 VULNERABLE HOUSEHOLDS

Vulnerable groups in the Project AoI is given in the table below.

Vulnerability Status	Mazı	Yeniköy	Gökpınar
Illiterate adult	50	10	35
Female head of household	20	5	15
People who live on aid from the state (institution, etc.)	50	10	25
Chronic disease/bedridden	50	10	30
Over 65 years of age living alone	300	55	200
People with physical/mental disabilities	5	2	5
Unemployed/head of household with insufficient income	10	2	5
Seasonal workers	100	15	60

Source: Muğla YEKA ESIA Field Study Findings, July 2024-April 2025

The April 2025 field studies identified a significant number of vulnerable individuals and households across the three Project-affected settlements. These include:

- Over 550 elderly individuals living alone (Mazı: 300; Gökpınar: 200; Yeniköy: 55),
- More than 125 individuals reliant on state aid or suffering from chronic illnesses,
- 75 female-headed households and a number of persons with disabilities or low income,
- Additionally, at least 175 seasonal workers and informal resource users—including goat herders, fuelwood gatherers, and mobile beekeepers—are economically dependent on forest or treasury lands in the project area.

Given the intersection of livelihood vulnerability and informal land use, these groups are at heightened risk of uncompensated income loss, disrupted access, or exclusion from formal processes.

To address this, the Livelihood Restoration Plan will:

- Prioritize vulnerable individuals and households in all livelihood assistance programs (e.g. transitional support, asset replacement, access restoration);
- Ensure that vulnerable informal users (including women, the elderly, and seasonal workers) are specifically identified through participatory methods and included in eligibility lists;
- Apply targeted livelihood restoration strategies tailored to the needs and capacities of vulnerable groups, including non-cash options (e.g. fodder, tools, safe access routes);
- Establish accessible and culturally appropriate grievance redress channels;
- Integrate monitoring indicators for vulnerability inclusion, effectiveness, and feedback.

7. ELIGIBILITY, ENTITLEMENTS AND COMPENSATION

This section outlines the eligibility criteria, entitlements, and compensation framework under the Livelihood Restoration Plan (LRP) prepared for the Arturna Wind Power Project. It reflects both international standards (IFC PS5 and EBRD ESR5) and local project-specific findings.

7.1 CUT OFF DATE

Eligibility for compensation and livelihood support is tied to a defined cut-off date, as per IFC PS5 and EBRD ESR5.

- The cut-off date was established as June 1, 2025, coinciding with the conclusion of the preliminary asset inventory and field-based impact assessment in Mazi and surrounding neighborhoods.
- Only those who owned or used affected lands/resources prior to this date are eligible for entitlements.
- The cut-off date was publicly communicated through meetings with muhtars, verbal announcements, and visits by the Project field team. Field notes confirm that the date was understood and accepted by stakeholders.
- Any claims from people who moved into the area or began using affected lands after this date will be considered ineligible.
- However, the Project commits to reviewing exceptional claims—particularly from vulnerable individuals who may have been inadvertently excluded—through verification and stakeholder committee review.

7.2 ELIGIBILITY

Eligibility for compensation, livelihood restoration assistance, and other support measures under this LRP has been defined in accordance with the requirements of IFC Performance Standard 5, EBRD Environmental and Social Requirement 5, and relevant Turkish expropriation and land use regulations. The aim is to ensure that all Project-Affected Persons (PAPs) who experience economic displacement due to the Arturna Wind Power Project are fairly identified and supported—regardless of whether they have formal land tenure.

Eligibility is based on the cut-off date of 1 April 2025, which corresponds to the conclusion of field-based household and land use surveys conducted in the affected settlement of Mazi. This cut-off date was communicated to local stakeholders via meetings with village mukhtars, face-to-face interviews, and public engagement during field visits.

Any person who began to use land or natural resources in the Project Area of Influence (AoI) after this date is not eligible for LRP entitlements. Exceptions may apply in the case of verified vulnerable individuals or households who were inadvertently missed during initial data collection and can be validated through community-level evidence and the grievance mechanism:

TABLE 7-1 ELIGIBLE CATEGORIES OF PAPs

PAP Category	Definition and Criteria (Arturna-Specific)
Legal landowners	Individuals or families with registered title deeds to land parcels acquired in Mazi for turbines or access roads.

PAP Category	Definition and Criteria (Arturna-Specific)
Informal users of treasury land	Individuals using treasury-owned land (without formal title) for agriculture, olive cultivation, or grazing.
Users of forest-edge land	Persons utilizing land at the forest–village interface for grazing, harvesting herbs, or collecting firewood.
Seasonal agricultural users	Families with periodic access to land for seasonal crops (e.g., cereals) or vegetable cultivation.
Beekeepers	Local or seasonal beekeepers with hives placed within or near the Project footprint, especially during spring bloom season.
Olive farmers	Individuals cultivating olive trees on privately owned or informally used land who are impacted by land loss, dust, or access disruption.
Livelihood-dependent users of pasture and forest	PAPs whose income or food security depends on continued access to pasture routes or forest resources.
Owners of productive assets	Those with crops, trees, hives, fencing, irrigation systems, or other improvements that are damaged or lost due to construction.
Vulnerable individuals or households	Elderly, disabled, women-headed, landless, or low-income households in Mazi and nearby neighborhoods, particularly those reliant on subsistence agriculture or seasonal access.

All claims of eligibility will be independently verified through field records, community validation, and documentation from the asset inventory. The project’s social team will verify land tenure or resource use via evidence such as land registry checks, receipts, witness interviews, or on-site observations. Each affected person will be formally notified of their eligibility status and the specific entitlements they qualify for. In cases of disagreement or if a person believes they were wrongly excluded, they will be informed of their right to raise a grievance. A robust grievance process is in place to resolve any disputes about eligibility or entitlements transparently.

7.3 ENTITLEMENT MATRIX

The Entitlement Matrix below summarizes the expected types of economic displacement and livelihood impacts identified in the Arturna Wind Power Project, along with corresponding compensation or support mechanisms and delivery modalities. The matrix has been developed in line with IFC PS5 and EBRD ESR5 to ensure that all eligible PAPs, including informal users and vulnerable groups, receive tailored assistance.

TABLE 7-2 ENTITLEMENT MATRIX

Impact Type	Eligible PAPs	Entitlement	Delivery Method	Responsible Party	Estimated Number of PAPs/Assets
Permanent acquisition of privately owned olive groves (Mazi)	Formal landowners or heirs	Cash compensation at full replacement cost including trees and improvements	Bank transfer	Enerjisa or TEİAŞ (for ETL)	~10–15 parcels (to be finalized by expropriation authority)
Loss of informal access to treasury land used for seasonal grazing or olive cultivation	Informal users (with muhtar validation)	Transitional Livelihood Support (TLS) for land-based income loss	In-kind (fodder) or seasonal cash payment before winter	Enerjisa	~8–10 households (Mazi)
Loss of access to forest margin or state land used for beekeeping	Beekeepers using affected forest edges or access roads	Hive relocation support and in-kind compensation for forage loss	In-kind (sugar/fodder/hive relocation assistance)	Enerjisa	~300–400 local hives (based on field observations)
Dust-related impact on flowering crops (e.g. olive, pine nuts) due to construction near unpaved roads	Farmers with groves along turbine access roads	Seasonal compensation for yield loss (based on flowering season)	Field verification and cash compensation	EPC Contractor or Enerjisa	~15–20 affected plots (to be finalized in construction phase)
Damage to fences, irrigation systems, or wells during construction	Landowners or users (formal/informal)	Repair or compensation at replacement cost	Direct repair by contractor or cash compensation	EPC Contractor or Enerjisa	~20–30 infrastructure assets
Temporary disruption of village grazing paths during road works	Livestock owners in Mazi and adjacent areas	Temporary access rehabilitation or one-time	Route restoration or case-based cash	Enerjisa	~5–8 households

Impact Type	Eligible PAPs	Entitlement	Delivery Method	Responsible Party	Estimated Number of PAPs/Assets
		compensation			
Vulnerability due to landlessness, old age, or female-headed status	Vulnerable households as identified in fieldwork	Priority inclusion in TLS and supplemental support (transport, food, seedlings)	Via village committee validation and CLO facilitation	Enerjisa	~12–15 households (Mazi)
Individuals missed in initial census but proven via grievance system	Late-identified PAPs (including sharecroppers, informal heirs, etc.)	Case-based eligibility verification and inclusion in applicable entitlements	Grievance Mechanism and field validation	EPC Contractor or Enerjisa	To be tracked during implementation
Interest in agricultural skill development (esp. youth)	Young PAPs, women, vulnerable household members	Access to agricultural training programs	With İl Tarım Müdürlüğü or local experts	Enerjisa	~15 training events; ~150 expected participants
Partial land acquisition leading to orphan/unviable land	All asset holders, informal users or heirs	Acquisition of the entire landholding, including the residual parcel, if requested by the landowner and compensation at full replacement cost.	Bank transfer	Enerjisa	TBD (following the survey results for the ETL route)

8. LIVELIHOOD RESTORATION PROGRAMME

The Livelihood Restoration Programme is a comprehensive set of measures designed to restore or improve the livelihoods of all PAPs who are economically displaced by the project's land acquisition and associated restrictions on land use. It aligns fully with IFC PS5 and EBRD ESR5, aiming not only to compensate losses but also to provide PAPs with support to sustainably rebuild their income streams and quality of life. The LRP is built on the eligibility criteria, entitlement matrix, and vulnerability considerations described in previous sections, ensuring that all affected groups – including informal land users and vulnerable households – are appropriately covered.

8.1 LRP COMPONENTS

The LRP for the Arturna WPP Project consists of multiple interlinked components designed to restore or improve the livelihoods of affected persons. These components were designed based on the project's eligibility criteria, entitlement matrix, and vulnerability screening outcomes. They are fully aligned with IFC PS5 and EBRD ESR5. Table 8-1 below summarizes each component, its intended target groups, timing, responsible entities, and inclusion considerations.

TABLE 8-1 LIVELIHOOD RESTORATION PROGRAMME OVERVIEW

Component	Target Groups	Delivery Timeline	Responsible Parties / Cooperation Needs	Inclusion Considerations
Cash Compensation	Legal landowners of Mazi parcels; owners of damaged trees, crops, or infrastructure	Pre-construction & construction	EMRA (Expropriation Authority), Real Estate Valuation Firms, Project Owner, Contractor	Timely compensation before land access; additional support for unregistered assets (trees, fences)
Transitional Livelihood Support (TLS)	Informal users of treasury/forest edge lands losing >20% access to productive resources	Pre-construction to early construction	Project Social Team, Mukhtars, CLO	Vulnerable groups (women-headed, elderly) prioritized; community validation used
In-Kind Support (Fodder & Beehive Relocation)	Livestock keepers and beekeepers with seasonal use near turbine pads or roads	Construction (by season)	Project Team, İl Tarım Müdürlüğü, Local Cooperatives	Seasonal calendar aligned; transparent hive relocation coordination
Damage-Based Compensation	Informal/formal users with damaged trees, crops, fences, or irrigation during works	Throughout construction	Contractor (with supervision), Project Social Team	Real-time logging via grievance system; verified before disbursement
Local Employment Facilitation	Local unskilled/semi-skilled laborers, especially impacted youth and women	Construction (peak) & early operation	EPC Contractor, İŞKUR, Project CLO	Preference to affected households; priority for women and unemployed youth

Component	Target Groups	Delivery Timeline	Responsible Parties / Cooperation Needs	Inclusion Considerations
Agricultural Training	Smallholders, youth, and women interested in improving farming/horticulture skills	Mid- to late-construction & post-construction	İl Tarım Müdürlüğü, Halk Eğitim Merkezi, NGOs	At least 50% women/youth participation; targeting Mazi
Vulnerability Support	Elderly, disabled, landless, or very poor households (especially Mazi-based)	Continuous	Project Social Consultant, Village Committees, Local Government	Tailored support; may include food aid, winter support, or small inputs

The LRP for the Arturna WPP is a structured, multi-component program designed to address the full range of economic displacement impacts identified during fieldwork in Mazi and its vicinity. It is fully aligned with the requirements of IFC Performance Standard 5 and EBRD Environmental and Social Requirement 5. The LRP builds upon the Project's eligibility criteria, entitlement matrix, and vulnerability assessment to deliver targeted, inclusive, and sustainable restoration measures.

The following key components form the core of the LRP strategy:

- **Cash Compensation** (for land, crops, trees, and other assets): Provided to formal landowners whose privately owned parcels in Mazi are acquired, and to other eligible individuals (e.g., cultivators or fence owners) whose productive assets are damaged.
Timing: Pre-construction and early construction period — to ensure compensation is paid prior to physical land entry.
- **Transitional Livelihood Support (TLS)**: Provided to informal users of treasury or forest-margin lands who face significant livelihood losses due to restricted access to grazing land, olive groves, or seasonal farming plots.
Timing: From pre-construction through early construction to mitigate short-term income disruption.
- **In-Kind Support** (e.g., fodder, hive relocation): Targeted to livestock keepers and beekeepers affected by temporary construction-related disturbances such as blocked access, dust, or noise.
Timing: Construction phase (seasonally timed according to livestock needs and pollination periods).
- **Damage-Based Compensation**: Offered to cultivators and asset holders (formal or informal) whose trees, crops, fencing, irrigation lines, or other infrastructure are damaged by construction machinery or access works.
Timing: Throughout the construction phase, based on incident logs and verification.
- **Local Employment Facilitation**: Prioritizes hiring of PAPs — especially youth and women from affected households — for construction and early operation phase jobs, in coordination with İŞKUR and local contractors.
Timing: During peak construction and initial operation.

- **Agricultural Training Programs:** Delivered in collaboration with Provincial Directorate of Agriculture and Public Education Centers to help affected persons — particularly women, youth, and small-scale farmers — diversify and enhance their farming or income-generating skills.
Timing: Mid- to post-construction, supporting long-term resilience.
- **Vulnerability Assistance:** Continuous support for the most disadvantaged households, including elderly, women-headed, landless, or low-income families, through customized aid, such as food, fuel, small cash grants, or access to public services.
Timing: Ongoing throughout LRP implementation, based on monitoring and community liaison follow-up.

8.1.1 CASH COMPENSATION PAYMENTS

Cash compensation payments represent the primary form of monetary redress provided to Project-Affected Persons (PAPs) whose land, crops, or assets are affected by the Arturna Project. These payments are designed to reflect the full replacement value of affected property in line with national legislation, IFC PS5 and EBRD ESR5 requirements. The following sub-sections provide a detailed breakdown of the compensation categories, eligibility criteria, valuation methods, and payment procedures.

8.1.1.1 COMPENSATION FOR UNREGISTERED FIXED ASSETS

In the Arturna Project Area of Influence, particularly in Mazi, many project-affected persons have established productive fixed assets on both private and treasury land, including:

- Village fencing and stone boundary walls,
- Small irrigation channels (e.g., PVC pipes, makeshift canals),
- Animal shelters and storage huts,
- Beehives placed seasonally on forest margins or pasture routes,
- Water storage tanks or traditional wells used for agriculture.

These assets are often not formally registered or permitted, but have legitimate and long-standing use. In line with IFC PS5 and EBRD ESR5, the Project will recognize and compensate for these unregistered fixed assets if they are demonstrably used and affected by construction or land acquisition.

All unregistered assets were recorded during the field surveys using:

- Photographic documentation,
- GPS-based mapping, and
- Witness validation via mukhtars or neighboring PAPs.

Compensation will be provided at full replacement value, based on assessment by an independent valuation expert. Depending on the PAP's preference and project logistics, replacement may be provided in one of two ways:

- Cash payment via bank transfer to enable the PAP to rebuild the asset themselves,

- In-kind provision or contractor-led reconstruction (e.g., rebuilding a wall or re-installing irrigation lines).

Importantly, this compensation is separate from land or crop compensation and is part of the broader entitlement framework. It ensures that even if a PAP lacks formal title, their productive investments are not disregarded and they are fully supported to restore pre-project economic activity.

8.1.1.2 CASH COMPENSATION FOR CROPS AND TREES

Project is committed to avoiding income loss for PAPs whose agricultural livelihoods are affected by the Project. Key crops and trees identified in the project footprint include:

- Olive trees, which represent the most valuable perennial asset in Mazi,
- Seasonal crops such as barley, wheat, and vegetables, often cultivated on small plots,
- Chestnut and pine trees in forest margins (in some cases with mixed ownership or customary use).

Compensation for Trees (especially olives): If trees are cut or damaged during land acquisition or construction (e.g., turbine pad preparation or road widening), the following principles will apply:

- Compensation will reflect the net present value (NPV) of the tree's remaining productive life, based on age, average yield, and market price per kg of produce.
- Reference will be made to the Ministry of Agriculture and Forestry's compensation tables and IFC-recommended valuation methods.
- Payments will be made in cash, via bank transfer, directly to the asset owner or verified user.

Compensation for Seasonal Crops: For damaged or destroyed seasonal crops:

- The expected yield will be calculated based on plot size, average productivity, and timing of damage.
- Field verification will be supported by agricultural consultants and supplemented by farmer input and past records, where available.
- Compensation will be paid promptly, ideally before the next planting cycle, to allow re-investment.

In cases where crops are cultivated by someone other than the landowner (e.g., a sharecropper or tenant):

- Compensation will be distributed based on customary sharing agreements or confirmed verbal arrangements (e.g., 50/50 or 70/30 splits).
- The Project will confirm this during field verification and engage both parties to ensure fair disbursement.

This approach ensures all PAPs—regardless of tenure—receive fair and timely compensation, and are empowered to recover from any agricultural disruption caused by the Project.

TABLE 8-2 COMPENSATION PAYMENTS

LRP measure	Compensation Payments								Proposed outcomes: Compensation at replacement cost for lost assets and maximization of yield by allowing for a last harvest of crops.																
Links to Livelihood Activities:	<ul style="list-style-type: none">• Compensation for lost assets for reestablishing of livelihoods on alternative lands																								
Required Partnerships:	<ul style="list-style-type: none">• Enerjisa Üretim Local Project Team (for coordination of project implementation, allocation of funds and compensation schedule)• Community Liaison Officers (for communication and facilitation with PAPs)• Local Government in Village and Sub-District Level (for fund transfer facilitation and oversight)																								
Proposed Timelines:	2025								2026								2027								
	Q1	Q2	Q3	Q4					Q1	Q2	Q3	Q4					Q1	Q2	Q3	Q4					
Asset and Land Valuation																									
Sign off of Valuation results																									
Fund allocation and deposit of the required funds (incl. for vulnerability support)																									
Establishment of shared bank accounts																									
Transfer of funds to PAPs																									
Transfer of Vulnerability Assistance																									
Monitoring and Evaluation.																									
Budgetary Considerations:	<ul style="list-style-type: none">• Will be dependent on valuation report developed by state qualified valuation experts.																								

8.1.1.3 INHERITANCE RELATED MEASURES (IF ENCOUNTERED)

Inheritance related measures refer to provisions that ensure compensation, entitlements, and benefits are appropriately transferred to rightful heirs or successors when the original asset owner is deceased or unable to claim them. These measures are crucial in regions where land and property rights are often passed down through family lines, and where formal documentation may be limited or absent.

Inheritance-related measures may include but not be limited to the following:

- Recognize heirs or successors when the original asset owner is deceased or unavailable.
- Accept customary or informal inheritance practices where formal documentation is lacking.
- Ensure vulnerable heirs (e.g. widows, children) are not excluded from compensation.
- Include heirs in entitlement matrices and benefit-sharing mechanisms.

The Project may provide additional support for PAPs and households affected by inheritance related matters to expedite the process and reduce PAP burden. This will allow heirs to complete their applications and receive compensation in a timely and transparent manner. Heirs will remain informed about processes and required documentation, and the process will be thoroughly documented and monitored.

8.1.2 LOCAL EMPLOYMENT OPPORTUNITIES

To promote local benefit-sharing, the Project will give hiring preference to PAPs for jobs created during construction. Typical jobs include road construction, fencing, transporting materials, site security, and other semi-skilled or unskilled work. PAPs who have lost land or livelihoods will be prioritized in recruitment drives, as will members of vulnerable groups (e.g. women, young people seeking employment, and the unemployed in the affected villages).

Job announcements will be made in a transparent and equal manner to all affected PAPs, through mukhtars, the Project's Community Liaison Officers (CLOs), and contractors' relevant units. This approach ensures that PAPs are aware of available opportunities and can apply or be referred in line with contractor needs.

Given that employment opportunities under the Project are temporary, facilitating short-term certifications or training that may be required for specific roles (e.g., hygiene certificates, basic food handling or cooking certifications). Such support will help PAPs—particularly women and other vulnerable groups—meet entry requirements for project jobs and, at the same time, increase their prospects for securing employment beyond the Project..

TABLE 8-3 LOCAL EMPLOYMENT

LRP Measure:	Local Employment Opportunities												Proposed outcomes: Equip PAPs to take advantage of local job opportunities through aligned vocational training.																	
Links to Livelihood Activities:	<ul style="list-style-type: none">As livelihood strategies available to PAPs are enhanced, additional skills development will be required to support the sustainability of these initiatives.PAPs expressed the desire to take advantage of employment opportunities made available through the Project, however, they may currently lack the skills to do so.Increased access to wage-paying work can reliably supplement household income from farming, and reduce shocks associated with climatic events or land scarcity.Skills development and training can be implemented alongside all other livelihood interventions to enhance their effectiveness.																													
Required Partnerships:	<ul style="list-style-type: none">Basic business skills development specialists and/or service providers.Vocational skills development service providers.Local mukhtars and CLOs																													
Proposed Timelines:	2025												2026								2027									
	Q1			Q2			Q3			Q4			Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4			
Identification of suitable specialists and service providers.																														
Consultation with PAPs on skills development and training preferences.																														
Design of skills development and training intervention program.																														
Continuous rollout of skills development and training program.																														
Creation of job referral and hiring mechanism																														
Advertisement of Employment Opportunities during Construction																														
Hiring and Employment																														
Employment Opportunities during Project Operation																														→
Monitoring and Evaluation.																														
Budgetary Considerations:	<ul style="list-style-type: none">Enerjisa Üretim will be required to engage with specialists to best understand the input costs and professional fees associated with their services.Enerjisa Üretim should consider linking this LRP intervention with its overarching labour force planning, skills development, and vocational training needs to ensure that PAPs meaningfully benefit from involvement in Enerjiisa’s projects.																													

8.1.3 MEASURES DURING CONSTRUCTION

This section outlines the set of livelihood support measures that will be implemented during the construction phase of the Arturna WPP Project to minimize temporary disruptions and mitigate adverse impacts on land users and vulnerable groups. These include the provision of transitional support, in-kind assistance such as fodder or access arrangements for herders, and special measures for women and other at-risk populations.

8.1.3.1 DUST CONTROL AND CROP IMPACT MITIGATION

Construction activities associated with the Arturna WPP — including turbine pad preparation, unsealed road use, and material transport through Mazi and adjacent forest-edge routes — are expected to generate dust, particularly during dry and windy conditions.

In Mazi, where olive trees are the dominant perennial crop and agricultural productivity is highly sensitive to environmental factors, dust settling on olive leaves and flowers may interfere with photosynthesis, flowering, and fruit development, potentially leading to reduced yields or lower-quality fruit.

Feedback collected during May–June 2025 stakeholder consultations confirms that dust impacts were raised as a key concern by cultivators, especially for groves located near projected turbine sites and unpaved access roads.

To minimize adverse impacts, the Project will implement the following dust control measures:

- Regular watering (at least 3 times daily) of unpaved roads and active work zones during dry or windy weather;
- Avoiding major excavation activities during the sensitive olive flowering period (April–May) wherever feasible;
- Covering stockpiles of sand or other fine materials stored near agricultural areas;
- Use of wind barriers, vegetation buffers, or protective mesh in areas adjacent to productive olive groves.

In the event that dust emissions result in noticeable or verifiable yield loss, the Project will assess and compensate cultivators based on:

- Comparative yield analysis between affected and unaffected plots (where control plots exist),
- Review of baseline yield data (collected in 2024–2025 as part of ESIA studies),
- Site visits and verification by independent agricultural experts or District Agriculture Office representatives,
- Farmer declarations and photographic evidence, submitted through the Project's grievance mechanism.

If yield loss is confirmed and linked to dust exposure (e.g. visibly smaller or fewer olives in affected zones), the Project will calculate compensation using prevailing market prices per kg, and pay it directly to the identified cultivator via bank transfer.

The Project will aim to complete any such compensation within the same harvest season, to ensure that affected households can recover and maintain continuity of agricultural activities.

Additionally, CLO will proactively inform farmers ahead of planned works, share updates on dust control schedules, and provide accessible reporting channels for farmers who wish to submit early warnings or complaints.

These mitigation and compensation measures reflect the Project's commitment to avoiding or restoring temporary livelihood losses caused by construction-related environmental impacts.

8.1.3.2 COMPENSATION FOR CONSTRUCTION-PERIOD DAMAGES

In addition to planned land acquisition and easement activities, the Project acknowledges that unintentional construction-related damages may occur in the course of site preparation, turbine installation, ETL installation, and access road works. Despite preventive measures, temporary or accidental harm may affect community assets and productive infrastructure in and around Yeniköy, Mazi, and Gökpınar.

Potential types of damage include:

- Destruction of standing crops, such as olive trees, barley, or vegetables, due to equipment movement or construction activity;
- Physical harm to rural infrastructure, including beehives, irrigation lines, boundary fences, animal shelters, or stone walls;
- Soil compaction or rutting on agricultural plots or pasture areas caused by heavy trucks or machinery;
- Interference with common grazing zones or forest paths used for seasonal livestock access.

All damage incidents will be:

- Logged by the Environmental and Social (E&S) team or the Contractor's construction supervisor;
- Documented with photographs, GPS coordinates, and short narrative descriptions;
- Verified through joint validation involving the affected PAP, the Community Liaison Officer (CLO), and, if needed, village mukhtar or agricultural expert.

PAPs in Yeniköy, Mazi, and Gökpınar are encouraged to report observed or suspected damage as early as possible via:

- Proactive engagements and routine field monitoring by the Project's CLOs will be prioritized in construction-intensive areas such as Yeniköy, Mazi, and Gökpınar, to detect emerging risks, inform communities in advance, and facilitate timely response before damages occur.
- Direct contact with the CLO during field visits,
- Submitting a complaint through the Project's Grievance Mechanism (in writing, verbally, or digitally).

Once verified, the Project will either:

- Repair the damage in kind (e.g. replace irrigation piping, rebuild walls, or re-install hives), or
- Provide cash compensation at full replacement cost, based on market rates for materials and labor.

Compensation will be financed by the responsible party, typically the Contractor, under the oversight of the Project's E&S team. A dedicated construction damage fund will be maintained to ensure rapid and fair compensation.

To reduce the occurrence of such damage, the following steps will be taken across all three affected settlements:

- Advance notifications to farmers and herders prior to high-impact construction works;
- Warning signs and temporary fencing near orchards, pasture paths, and water points;
- Restricted access to sensitive agricultural plots for construction vehicles;
- Frequent watering of roads near agricultural lands and beekeeping zones (especially in Yeniköy and Mazi) to reduce dust and crop stress.

The Project's objective is to ensure that all project-affected individuals are restored to their pre-impact condition without delay, and without needing to wait until construction is completed. Proactive engagement and transparent compensation processes will be critical in maintaining trust and mitigating residual risks in Yeniköy, Mazi, and Gökpınar during the construction phase.

8.1.3.3 SUPPORT FOR ANIMAL HUSBANDRY ACTIVITIES

PAPs in the Project AoI are engaged with various animal husbandry activities, such as animal grazing and beekeeping for their livelihood generation. Below sub chapters present LRP measures to restore livelihoods associated with animal grazing and beekeeping.

Support For Animal Grazing

Livestock rearing—especially of small ruminants (goats and sheep) and some cattle—remains an important livelihood activity in Mazi and, to a lesser extent, in Gökpınar and Yeniköy. Herd sizes are typically small (3–10 animals), and common practices include:

- Free grazing near forest margins and rocky slopes;
- Use of olive groves for post-harvest grazing (especially in Mazi);
- Grazing on uncultivated community lands or along access roads and streambeds.

Potential construction-related impacts include:

- Temporary restriction of grazing access near turbine foundations (Mazi) and the ETL corridor (Mazi–Gökpınar),
- Disruption of traditional livestock passage routes, especially during turbine road construction or material transport (Yeniköy),
- Increased reliance on fodder due to reduced access to grazing.

To minimize adverse effects on livestock-dependent PAPs, the Project will implement the following measures:

- Fodder Support: During key periods (e.g. winter/spring), in-kind provision of fodder (hay or silage) will be delivered to affected households with verified herds. Distribution will consider herd size, season, and estimated access restriction days.
- Route and Access Support: Where traditional herd passage routes are blocked (e.g. through Mazi pasture slopes or ETL works), the Project will coordinate with herders to provide safe passage solutions such as temporary detours, signage, or safe zones during low-activity periods.

- **Rotational Access Coordination:** In turbine-adjacent areas where full exclusion is not necessary, the Project will explore supervised, short-term access (e.g. during weekends or holidays) to minimize fodder shortages.
- **Temporary Alternative Grazing:** In collaboration with muhtars, livestock cooperatives, and the District Agriculture Office, the Project will help identify community-owned or state pastureland that could be made temporarily accessible.

These measures are designed to avoid loss of productivity or distress sales of livestock, and to sustain the modest but meaningful role livestock plays in the rural economy of Arturna's affected communities.

Support for Beekeeping

Beekeeping is a significant supplementary livelihood in Mazi and surrounding forest-margin locations, where a mix of fixed-location and migratory apiculture is practiced. Many local households maintain hives in olive groves or along pine forest edges during spring and early summer to collect wildflower and pine honey.

Key project risks include:

- Dust accumulation on foraging vegetation during access road construction (notably in Mazi and Yeniköy),
- Noise or vibration stress near hive zones due to turbine pad excavation,
- Restricted access to traditional hive placement areas, particularly forest slopes affected by the ETL or turbine pads.

The Project will deliver the following support actions to affected beekeepers:

- **Hive Relocation Support:**
 - Identification of alternative hive placement sites within ecologically suitable and safe areas;
 - Transport assistance for moving hives and basic equipment;
 - Scheduling hive relocation outside of queen development or peak foraging periods, to reduce colony stress.
- **In-situ Protective Measures:** For hives that remain near active construction, the Project will provide dust screens, wind barriers, and coordinate noisy works outside of peak foraging hours (typically early morning and late afternoon).
- **Compensation for Verified Honey Losses:**
 - Based on baseline honey yield data (from field surveys or beekeeper records);
 - Priced using current market values for pine and wildflower honey;
 - Assessed and verified with support from the District Directorate of Agriculture and the Project's grievance mechanism.
- **Training and Technical Capacity-Building:**
 - Managing hive health under environmental stress (dust, movement, heat);
 - Controlling key pests and diseases;
 - Diversifying income through wax harvesting, pollen collection, or queen rearing techniques.

All support will be delivered under the coordination of the CLO and the Project's E&S team, with early warnings and complaints encouraged through accessible grievance channels. Beekeeping households in Mazi, Gökpınar, and Yeniköy will be systematically engaged throughout construction and LRP implementation phases.

TABLE 8-4 ANIMAL GRAZING AND BEEKEEPING SUPPORT MEASURES

LRP Measure	Animal Grazing Support Measures								Proposed outcomes: Ensure herders and beekeepers avoid losses and maintain their livelihoods during construction-related disruptions. Maintain hive health during stress by diversifying beekeeping products or techniques.											
	Beekeeping Support Measures																			
Links to Livelihood Activities:	<ul style="list-style-type: none">Generates income and jobs through value-added processing and improved techniques.Strengthens food security and resilience, enabling PAHs to continue preferred agricultural livelihoods despite land and output constraints.																			
Required Partnerships:	<ul style="list-style-type: none">Suppliers for Agricultural Products and Equipment, Training Organizers/Implementers, National Land Agency or Owners of Alternative Lands																			
Proposed Timelines:	2025								2026				2027							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Identification of Suppliers for Livestock Feed and Transport Services (for Relocation)																				
Identification of Impacted PAPs and Mapping of Assets (e.g. Beehives)																				
Identification of Alternative Grazing Lands																				
Development Written Agreements with Suppliers and PAPs																				
PAP Sign-Off																				
Provision of Fodder and Animal Feed																				
Beehive Relocation																				
Disruption Compensation (if needed)																				
Consultation and Agreement with relevant ministries/organizations on training provisions																				
Consult PAP on planned technical training program for beekeepers																				
PAP Sign-Up for Beekeeper Training Program																				
Beekeeper Training Implementation																				
Provision of support equipment (if needed)																				
Monitoring and Evaluation.																				
Budgetary Considerations:	<ul style="list-style-type: none">Enerjisa Üretim will be required to engage with suppliers and training authorities to best understand the input costs and professional fees associated with their services.																			

8.1.4 TRAINING AND CAPACITY-BUILDING

Community consultations and baseline socio-economic research conducted in May–June 2025 across Mazi, Gökpınar, and Yeniköy revealed a clear demand for practical skills training to improve agricultural practices and expand income-generating options. This demand was especially strong among:

- **Smallholder olive farmers** seeking to improve productivity and product quality,
- **Beekeepers** interested in hive health and diversification,
- **Youth and women**, many of whom expressed interest in small-scale, home-based agricultural activities but cited lack of knowledge and limited market access

In response, the Project will implement a targeted Training and Capacity-Building Program as part of the Livelihood Restoration Plan (LRP). The goal is to strengthen resilience, improve productivity, and support long-term livelihood recovery through practical and context-specific training modules.

Planned Training Areas

1. Improved Olive Cultivation Techniques

Focus: Pruning, fertilization, pest management, and low-cost drip irrigation.

Justification: Mazi and Gökpınar farmers rely heavily on olive production but often use traditional techniques with low yields and limited oil quality.

Expected Outcome: Better yield per tree, higher oil quality, and reduced labor input.

2. Small-Scale Livestock Management

Focus: Seasonal feeding strategies, pasture rotation, animal hygiene, and vaccination awareness for goat and sheep herders.

Justification: Livestock in Mazi and Yeniköy is primarily managed by older men and women with limited veterinary access.

Expected Outcome: Improved animal health and reduced fodder costs during critical periods.

3. Apiculture and Product Diversification

Focus: Beehive maintenance, seasonal relocation strategies, queen rearing, and value-added production (pollen, wax, propolis).

Justification: Apiculture is a seasonal but meaningful income source for Mazi residents; however, knowledge on disease control and diversification is limited.

Expected Outcome: Increased resilience to environmental stressors and diversified honey-related income streams.

4. Agricultural Marketing and Women's Microenterprise Support

Focus: Branding of local olive oil and honey, direct marketing techniques (e.g. farm-gate or local fairs), and basic accounting for small-scale rural enterprises.

Justification: Women in Mazi and Gökpınar expressed interest in home-based value-added activities but face barriers in marketing and digital literacy.

Expected Outcome: Empowered women-led microenterprises and increased household income.

Delivery Modalities and Partnerships

Trainings will be conducted in partnership with the Muğla Provincial Directorate of Agriculture and Forestry, District-level extension offices, and—where applicable—rural development NGOs or cooperatives.

Sessions will be scheduled post-harvest or during low farming activity periods, at centrally located venues within affected settlements.

A hands-on, demonstration-based format will be prioritized, with tools and examples provided for small-scale replication.

In addition to in-person group sessions, follow-up field visits may be organized for trainees who wish to apply new methods on-site.

Targeting and Inclusion Principles

Priority will be given to:

Project-Affected Persons (PAPs) whose livelihoods were disrupted by land acquisition, access loss, or crop impacts,

Vulnerable households, particularly women-headed, elderly, or landless families,

Youth and women expressing interest in alternative livelihoods or agricultural entrepreneurship.

TABLE 8-5 TRAINING AND CAPACITY BUILDING

LRP Measure:	Training and Capacity Building								Proposed outcomes: Increased efficiency and resilience in farming through improved practices and business conduct.																
Links to Livelihood Activities:	<ul style="list-style-type: none">Strengthens food security and resilience, enabling PAPs to continue and ideally improve preferred agricultural livelihoods through relevant training.																								
Required Partnerships:	<ul style="list-style-type: none">Suppliers for Relevant Trainings																								
Proposed Timelines:	2025								2026								2027								
	Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		
Identification of Relevant Trainings																									
Consultation with PAPs on planned training programs																									
Identification of Training Developers/Implementers																									
Training Roll-Out																									
PAH Sign-Up for Training Programs																									
Training Implementation																									
Provision of supporting equipment (as needed)																									
Monitoring and Evaluation.																									
Budgetary Considerations:	<ul style="list-style-type: none">Enerjisa will be required to engage with suppliers and training authorities to best understand the input costs and professional fees associated with their services.																								

8.1.5 OTHER SUPPORT MEASURES

8.1.5.1 SUPPORT FOR INFORMAL LAND USERS

Many households within the Arturna Project Area of Influence—particularly in Mazi, but also in Gökpınar and Yeniköy—depend on lands and natural resources that they do not legally own or hold formal title to. These informal land use arrangements are often customary, family-based, or long-standing, and play a critical role in household food security and income generation.

To ensure that the Livelihood Restoration Plan (LRP) is equitable and inclusive, the Project explicitly recognizes informal users as eligible for various support mechanisms—even in the absence of formal land tenure.

Types of Informal Use Observed in Arturna AoI:

- Grazing livestock on treasury land or along forest margins (especially in Mazi),
- Cultivating olive groves or garden plots inherited or used across generations without legal transfer or registration,
- Practicing seasonal beekeeping in forest edge areas without formal access permits,
- Collecting wild herbs, mushrooms, pinecones, or firewood from forest areas,
- Shared or informal use of olive groves and orchards among extended family members, without formal agreements.

Eligibility and Verification Criteria:

- Genuine and ongoing at the time of the cut-off date (June 1, 2025),
- Demonstrably important to the household's livelihood or subsistence,
- Verified through community-based validation, including endorsements from the village mukhtar, neighbors, or other local leaders.

Field teams may also verify use through:

- Site visits and photographs,
- Livestock or hive counts,
- Evidence of past production or long-standing presence.

Forms of Support Available to Informal Users:

Eligible informal users may receive:

- Transitional Livelihood Support (TLS): In cash or kind for households who lose critical grazing, foraging, or cultivation access due to Project activities (e.g., ETL corridor or turbine pad construction).
- In-kind support, such as:
 - Fodder for informal livestock herders,
 - Hive relocation assistance and basic materials for informal beekeepers,
 - Support with identifying alternative access routes or sites.
- Priority access to training programs, cooperative formation support, and livelihood diversification initiatives.

All support decisions involving informal users will be:

- Documented and tracked through the LRP monitoring system,
- Open to appeal or clarification via the Project's Grievance Mechanism,
- Reviewed by the Project's Social Team in coordination with local authorities and community representatives.

By recognizing the importance of informal but legitimate land use, the Project ensures that all PAPs—including those without legal title—can restore and sustain their livelihoods fairly and in line with IFC PS5 and EBRD ESR5 principles.

8.1.5.2 TRANSITIONAL LIVELIHOOD SUPPORT (TLS)

Transitional Livelihood Support (TLS) is a critical interim assistance mechanism within the Arturna Livelihood Restoration Plan. It aims to help affected households bridge temporary income gaps caused by land loss, loss of access to natural resources, or disruption of seasonal productive activities such as beekeeping and livestock grazing.

TLS will be provided in cash and/or in-kind form, depending on the nature of the impact, the timing of the construction activities, and the seasonal livelihood calendar of the affected households.

Eligibility Triggers for TLS in Arturna: PAPs may qualify for TLS if they experience one or more of the following:

1. Significant Loss of Productive Land:

- Households (whether formal owners or informal users) losing 20% or more of their productive land—including olive groves, seasonal garden plots, or grazing areas—as a result of land acquisition, turbine pad construction, or long-term access restrictions.
- This is most likely to affect Mazı residents whose privately held or informally used parcels are located within the turbine or ETL footprint.

2. Loss of Access to Critical Natural Resources:

- Households in Mazı, Gökpınar, and Yeniköy that rely on:
 - Forest-edge areas for winter grazing,
 - Wood collection zones, or
 - Shared pasture paths that become temporarily blocked or permanently inaccessible due to Project works.

3. Disruption to Beekeeping or Seasonal Livestock Use:

- Beekeepers in Mazı and Yeniköy who are required to relocate hives during the flowering or honey-producing season,
- Herders whose seasonal access to grazing areas is interrupted during critical periods.

Preliminary Findings from May–June 2025 Fieldwork:

- Several landowners and informal users in Mazi are likely to lose a significant portion of their olive groves or access rights due to turbine siting and ETL corridor clearing.
- Shepherds in Yeniköy and Gökpınar indicated restricted access to traditional livestock movement routes.
- Beekeepers operating near turbine pads reported concerns about forage loss and timing of construction during nectar flow.

Forms of TLS Delivery:

The Project will provide support in the following ways:

- **Cash Support:** Monthly or lump-sum cash payments reflecting typical seasonal income from affected activities (e.g. average olive sales, honey yield, or livestock product income), paid by bank transfer.
- **In-Kind Support:**
 - Fodder or silage for affected livestock keepers,
 - Basic beekeeping materials (frames, sugar, hive boxes) where hive relocation is needed,
 - Agricultural inputs such as saplings, compost, or pruning tools for olive grove rehabilitation.
- **Livelihood Duration Alignment:**
Support will be timed to coincide with the most sensitive income-generating windows—e.g., from planting to harvest for olives, or from nectar flow to honey harvest for apiculture.

The support is generally designed to cover one agricultural cycle of lost income. In practice, this might mean a monthly cash transfer to the household for a defined period (e.g., 3 to 6 months) to substitute for lost crop income. Alternatively, it could be delivered as agricultural inputs – for example, providing a package of seeds, fertilizer, or livestock feed that helps the household sustain production on their remaining land. The choice of cash vs. in-kind, and the exact duration, will be tailored to the household's primary livelihood and seasonal calendar. Typically, support will span a period sufficient for the PAP to re-establish their livelihood (for example, until the next harvest or grazing season when they can start recovering).

- **Eligibility Thresholds and Duration:**

TLS is provided to those whose main livelihood is agriculture, based on the proportion of land loss:

- 3-month TLS for 20–40% impact rate
- 4-month TLS for 40–60% impact rate
- 5-month TLS for 60–80% impact rate
- 6-month TLS for 80–100% impact rate

Households that lose more than 70% of their land are considered severely impacted and, in practical terms, may face conditions similar to landlessness. For such cases, enhanced support measures will be considered, including the maximum duration of TLS (6 months) and

priority access to complementary livelihood restoration programs. Asset valuation is conducted based on a scoring system developed by Enerjisa presented below.

Impact Category

Affected Percentage of Total Land	Impact Score	Expropriated Land Area (m²)	Impact Score	Impact on Multiple Land Parcels	Impact Score	Remaining Land Condition	Impact Score	Actual Land Use	Impact Score	Type of Structure Affected	Impact Score	Impact on Main Livelihood Source	Impact Score	Other Vulnerabilities / Sensitivities	Impact Score
20–30%	10	1–2,500 m²	5	1–2 Parcels	5	Irregular shape, small area, access issues	5	Vacant	0	Residential	5	Main livelihood source is the expropriated land	5	Disadvantaged Group	10
30–40%	15	2,500–5,000 m²	10	2–3 Parcels	10			Rented	0	Business	10	Other than land-based livelihood	0		
40–50%	20	5,000–7,500 m²	15	3–4 Parcels	15			Field	5						
50–60%	25	7,500–10,000 m²	20	4–5 Parcels	20			Garden	10						
70%+	30	10,000+ m²	25	5+ Parcels	25			Plot (zoned land)	15						

Score Range	Support Amount
5–14 points	1 Minimum Wage
15–24 points	2 Minimum Wages
25–34 points	3 Minimum Wages
35–44 points	4 Minimum Wages
45–54 points	5 Minimum Wages
55+ points	6 Minimum Wages

While affected structures and assets are reflected within the scoring system, it is important to note that the system is designed solely to determine transitional allowances related to livelihood activities. It does not replace or serve as a basis for compensation for impacted assets and structures. Compensation for such losses will continue to be provided in accordance with

government compensation rates, valuation processes, and any subsequent top-up payments that may be applied in addition to the transitional allowances.

A final determination of TLS eligibility will be made once all land acquisition, easement agreements, and user verification are completed, including community validation for informal users.

Support duration will align with the seasonal calendar and be long enough to allow PAPs to recover—e.g. until the next olive harvest, grazing cycle, or honey season.

At the time of this LRP, the exact number of TLS recipients is still being finalized. The Project commits to:

- Updating the final list of eligible households once land acquisition and user data is complete;
- Ensuring informal users are not excluded based on lack of legal title, in accordance with IFC PS5 and EBRD ESR5;
- Monitoring the adequacy of TLS support and adjusting its form or duration based on community feedback or unexpected disruptions.

TLS program aims to prevent a decline in livelihood security and enable PAPs to resume productive activities without entering deeper economic vulnerability.

8.1.5.3 VULNERABILITY SUPPORT

In line with IFC Performance Standard 5 and EBRD Environmental and Social Requirement 5, the Arturna Livelihood Restoration Plan (LRP) includes targeted support measures for vulnerable households who may face greater difficulty in coping with project impacts or accessing compensation and assistance.

TABLE 8-6 TAILORED SUPPORT MEASURES FOR VULNERABLE PAPs

Vulnerable Group	Engagement / Access Measures
Female-headed households	Gender-sensitive outreach, home visits, childcare-sensitive timing of engagement
Elderly (65+)	Mobility-sensitive visits, visual/verbal information tools
Persons with disabilities	One-on-one support, referral to health and welfare services
Low-literacy adults	Visual aids, oral briefings, use of muhtar/CLO intermediaries
Social aid recipients	CLO-assisted documentation, linkage to social programs and complementary assistance

Identified Vulnerable Groups in Arturna AoI

Based on baseline fieldwork and community profiling in Mazi, Gökpınar, and Yeniköy, the following vulnerability categories have been identified:

- Female-headed households with limited land, low income, or caregiving responsibilities (11 households in Mazi),
- Elderly-headed households (65+) living alone or without adult family support (7 individuals in Mazi),
- Social aid-dependent households, including those registered with SYDV or receiving in-kind food/fuel assistance (at least 6 across Gökpınar and Yeniköy),

- Persons with disabilities and/or mobility impairments (2 individuals confirmed in Mazi),
- Informal users with limited social capital or tenure security,
- Unemployed youth or low-literacy adults expressing interest in training but lacking support.

TABLE 8-7 ENTITLEMENTS AND LRP LINKAGES

Vulnerable Group	LRP Entitlement Measures
Female-headed households	Priority access to compensation and in-kind agricultural assistance
Elderly households	Customized TLS support in kind (e.g. delivery of fuelwood, poultry, or food supplies)
Social aid-dependent HHS	Supplemental household support packages and home delivery of materials
Persons with disabilities	Adjusted documentation, assisted grievance channels, transportation help
Informal users	Verified inclusion in compensation and livelihood support regardless of tenure
Unemployed youth / low-income HHS	Fast-tracked enrollment in skills training and job placement with project contractors

Project Measures for Inclusion and Monitoring

- A Vulnerability Focal Point within the Community Liaison Team (CLO) will:
 - Track individual and household-level vulnerability,
 - Coordinate specialized support delivery,
 - Maintain a feedback loop for ongoing identification and updates.
- The Project's Grievance Mechanism (GM) will be adapted to accommodate vulnerable PAPs through:
 - Trained focal points capable of receiving oral or anonymous complaints,
 - Use of pictograms and verbal explanations for illiterate users,
 - Mobile outreach or home visits for physically isolated or elderly individuals,
 - Confidentiality assurance, including optional use of intermediaries (e.g., mukhtar, social worker).
- A vulnerability tracking system will be maintained throughout construction and LRP implementation. It will:
 - Track support provided and outcomes achieved,
 - Disaggregate data by gender, age, and vulnerability type,
 - Inform mid-term reviews of LRP effectiveness for vulnerable groups.

TABLE 8-8 OTHER SUPPORT MEASURES

LRP Measure	Other Support Measures																Proposed outcomes: To ensure that affected individuals—especially the most vulnerable, can maintain their livelihoods, adapt to temporary disruptions, and transition smoothly through project-related changes with targeted assistance and compensation.																	
Links to Livelihood Activities:	<ul style="list-style-type: none">Generates income and jobs through value-added processing, small business opportunities, and agri-employment.Strengthens food security and resilience, enabling PAHs to continue preferred agricultural livelihoods despite land and output constraints.																																	
Required Partnerships:	<ul style="list-style-type: none">CLO’s, Mukhtars, Relevant local NGO’s working with vulnerable groups																																	
Proposed Timelines:	2025																2026								2027									
	Q1	Q2	Q3	Q4									Q1	Q2	Q3	Q4					Q1	Q2	Q3	Q4										
Identification of PAPs eligible for other support measures																																		
Home Visits for engagement with identified PAPs and verification of eligibility																																		
Allocation of Funds for TLS and Vulnerability Support																																		
Provision of Additional In-kind assistance																																		
Transfer of Funds																																		
Priority for Trainings and Employment-based LRP measures																																		
Monitoring and Evaluation																																		
Budgetary Considerations:	<ul style="list-style-type: none">Enerjisa will be required to engage with relevant local actors to identify all impacted PAPs eligible for other support measures and allocate respective services to them and M understand the input costs and professional fees associated with those measures.																																	

8.2 LRP IMPLEMENTATION SCHEDULE

The LRP will be implemented in the following phases:

Pre-Construction Phase

- Final PAP verification and updating of the eligibility database
- Disclosure of entitlements and LRP brochure to all PAPs
- Disbursement of cash compensation and initiation of TLS
- Coordination meetings with third-party stakeholders (e.g., İŞKUR, Directorate of Agriculture)

Construction Phase

- Weekly monitoring of access and damage to crops, fences, and infrastructure
- Implementation of in-kind support for livestock and beekeeping PAPs
- Onboarding of local workers through employment facilitation partnerships
- Launch of initial training sessions and registration drives

Post-Construction Phase

- Finalize any pending compensation or damage claims
- Continued Grievance Redress
- Continued support and monitoring for vulnerable groups through targeted visits
- Completion audit and satisfaction survey to measure LRP effectiveness

TABLE 8-9 LRP IMPLEMENTATION TIMELINE

Proposed Timelines:	2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Mobilization												
Final PAP Verification (incl. Vulnerable Groups)												
LRP Disclosure												
Relocation of Assets												
Construction												
Operation												
Disbursement of Compensation Payments												
Local Employment												
In-kind Support Disbursements												
Training Roll-Out and Implementation												
Monitoring and Evaluation												
Grievance Redress												
LRP Completion Audit												

9. ROLES AND RESPONSIBILITIES

This section outlines the roles and responsibilities of key project personnel and teams in relation to the effective and timely implementation of this LRP.

9.1 KEY PROJECT STAFF

Table 9-1 presents the key Project staff and their roles and responsibilities in the LRP development and implementation.

TABLE 9-1 ROLES AND RESPONSIBILITIES

ESMS Team Member / Task Force	E&S Related Roles and Responsibilities
Arturna WPP Project Manager / Construction Manager	<ul style="list-style-type: none"> • Provide strategic oversight and general project management for LRP implementation. • Review and approve the LRP and any necessary updates. • Approve entitlement measures proposed under the LRP. • Ensure that sufficient resources are allocated for LRP delivery. • Periodically review LRP implementation progress reports.
Project Deputy Manager / Community Liason Officer (CLO) also acting as the GBVH Focal Point	<ul style="list-style-type: none"> • Maintain grievance database for land-related complaints.- Collect and process field complaints. • Ensure timely resolution in collaboration with technical managers. • Report unresolved issues related to Employer to supervisors. • Prepare monthly LRP-related grievance reports. • Monitor expropriation, legal processes, and access status. • Ensure and acquisition complaints are resolved per SEP. • Provide technical input for LRP cost adjustments. • Support local stakeholder engagement and LRP communication. • Coordinate grievance resolution at site level. • Ensure timely escalation of unresolved issues.
Project Land Acquisition Team	<ul style="list-style-type: none"> • Team is comprised of: Corporate-level Land Acquisition and Expropriation Mentor; Urban & Regional Planning Solution Partner; and Land Acquisition Expert • Public information meeting with regards to land acquisition process for the Project • Compensation payments for land • Close collaboration with Project CLO's
RAP/LRP Implementation Task Force	<ul style="list-style-type: none"> • Led by RAP specialist • Ultimately responsible for LRP implementation. • Ensure funding for Contractor-led LRP activities. • Align financial flows with LRP timeline and delivery mechanisms.

ESMS Team Member / Task Force	E&S Related Roles and Responsibilities
TEİAŞ	<ul style="list-style-type: none"> • Carry out land acquisition and expropriation procedures in accordance with national legislation. • Coordinate with relevant public institutions (cadastre, municipality, forest authority, etc.) for land access. • Notify and communicate with legally registered landowners and rights holders. • Manage compensation payments for expropriated land and registered assets.
Contractors and Subcontractors	<ul style="list-style-type: none"> • Record and forward all grievances received, including verbal complaints. • Respond to issues in alignment with Contractor procedures and SEP requirements.

All personnel and units involved in LRP delivery are required to operate under the principles of transparency, accountability, and stakeholder responsiveness, and to ensure full alignment with the Project's grievance mechanism and stakeholder engagement strategy.

10. LRP STAKEHOLDER ENGAGEMENT

Effective stakeholder engagement is essential to the success of the LRP. The Project is committed to transparent, inclusive, and continuous engagement with all Project-Affected Persons, particularly those whose livelihoods may be impacted by land acquisition or restricted access to land and resources.

This engagement framework ensures that all PAPs are informed of their rights, entitlements, responsibilities, and available support mechanisms, including the grievance process for raising concerns related to LRP implementation.

10.1 LRP DISCLOSURE

Upon finalization and approval of the LRP, a non-technical summary of the document will be prepared and shared with affected communities in Turkish, using appropriate, locally accessible formats. The disclosure methods will include:

- Distribution of printed brochures and posters in affected settlements
- Verbal presentations during community information meetings by the Project CLO
- Special disclosure meetings for vulnerable groups
- Uploading the LRP to the Project website

These materials will explain:

- The types of impacts covered under the LRP
- LRP Process and Programs
- Eligibility criteria and entitlements
- Cut-off date for eligibility
- All eligible PAPs will be proactively identified and registered for relevant support measures based on the entitlement matrix. No formal application will be required; support will be delivered directly according to verified eligibility records.
- Grievance mechanism and contact points
- Project timelines

10.2 STAKEHOLDER CONSULTATION ACTIVITIES

Following approval of the LRP:

- Community meetings will be held in each affected neighborhood to disclose the LRP in an accessible format.
- The Project's Community Liaison Officers (CLOs) will lead these consultations and remain available throughout the LRP implementation period.
- CLOs will ensure that vulnerable groups (e.g., elderly, women-headed households, informal users) are specifically reached through direct visits or separate small-group sessions.
- Additional LRP consultations will be triggered in case of significant changes to the entitlement framework or newly affected areas due to future expropriations or construction realignments.

Engagement with Regards to Inheritance-Related Compensation Delays

- During the compensation process for a similar project, a limited number of cases were identified where heirs experienced delays in receiving their compensation due to the legal procedures required for inheritance declaration. These delays primarily resulted from the time needed to obtain formal documentation confirming legal entitlement to the assets and compensation payments.
- To resolve this issue, the Project's legal team supported affected households by facilitating the preparation and submission of inheritance declarations. These were subsequently delivered to the rightful heirs through the Community Liaison Officers (CLOs). In addition, clear instructions, accompanied by photographs illustrating the steps to obtain payments from the court, were posted at the village coffeehouse to ensure transparency and broad access to information. As a result of these measures, the heirs were able to complete their applications and receive their compensation payments.
- The project commits to take the same approach as described above, if similar inheritance related delays are encountered for the Arturna Project. Measures will be sufficiently documented and monitored.

10.3 GRIEVANCE MECHANISM

The Project Grievance Mechanism, originally established under the Stakeholder Engagement Plan, will also serve as a tool for receiving, registering, and resolving requests and complaints related to livelihood restoration.

Key Features of the Grievance Mechanism in LRP Context

The Project's Grievance Mechanism (Please refer to SEP) will be an accessible and confidential tool for receiving and resolving complaints specifically related to the Livelihood Restoration Programme (LRP). Importantly, the GM is not intended to be a channel for initiating or requesting livelihood support measures or for validating standard LRP processes. All eligible Project-Affected Persons (PAPs) are automatically identified and registered based on the entitlement matrix, and the implementation of support measures does not require individual requests or applications via the GM.

Likewise, the GM will not be used as a standard tool to confirm acceptance of compensation packages, asset valuations, or other entitlements. Instead, all asset valuation reports and livelihood-related verification forms will be jointly reviewed and signed off by the respective PAPs, community representatives (e.g. Mukhtars), and, where appropriate, an independent third party such as a qualified NGO or monitoring body. The Project team will proactively engage with PAPs during site visits and consultation activities to obtain formal consent and feedback. Feedback loops for such core LRP processes will be built into field implementation and documentation procedures, ensuring that PAPs do not need to rely on the GM to raise questions or express approval.

The GM's role in the context of the LRP will be clearly limited to addressing disputes or complaints, including the following:

- Acceptance and confidential processing of grievances—whether named or anonymous—submitted through established GM channels (verbal, written, or digital).

- Registration and resolution of complaints related to compensation disagreements, asset valuation disputes, transitional or in-kind support concerns, or exclusion from training and employment programmes.
- Commitment to resolve grievances within the agreed timeframes (e.g. within 30 working days), in accordance with the Project's grievance procedure.
- Written notification of grievance outcomes to complainants, with escalation procedures in place for unresolved cases, including review by a grievance committee or referral to an external mediator, if necessary.

Coordination with Relevant Authorities

The CLO team will liaise with Provincial and District Governorates, Forestry Directorates, and Land Registry Offices to ensure alignment in addressing land-related grievances. In the case of future expropriation, the Project will disclose the updated cut-off date and entitlements clearly, and any new grievances will be managed through the same GM system.

Ongoing Stakeholder Engagement

The Project commits to continuous engagement with affected households throughout the LRP implementation, including:

- Follow-up visits for monitoring support delivery
- Adjustments to LRP measures based on community feedback
- Transparent reporting on LRP progress at village level

All community engagement activities, questions raised, and corrective actions taken will be documented and included in quarterly LRP implementation reports submitted to IFC and other stakeholders.

Stakeholder Engagement in LRP Implementation

Effective stakeholder engagement is essential to the success of the LRP. Throughout implementation, the Project is committed to transparent, inclusive, and continuous engagement with all PAPs – particularly those whose livelihoods are impacted by land acquisition or restricted access to resources. The engagement strategy for the LRP ensures that PAPs are well informed of their rights, entitlements, responsibilities, and the available support mechanisms. It also ensures they know how to voice concerns or complaints via the grievance process.

10.3.1.1 INFORMATION DISCLOSURE ON THE LRP

Once the LRP is finalized, the LRP will be shared with all affected communities in user-friendly formats. The disclosure methods will include:

- Distribution of printed **brochures or information booklets** to households in each affected settlement. These brochures will concisely explain the LRP provisions and contact information. Posters may also be placed in prominent village locations summarizing key points.
- **Community meetings:** In each affected settlement in the Arturna AoI meetings will be held. In these meetings, the Project's CLOs (and other social team members) will present the LRP summary verbally, use visual aids or presentations to explain complex concepts,

and answer questions from PAPs. Multiple meetings will be held as needed to reach everyone, including separate sessions for smaller hamlets if required.

- **Special disclosure meetings for vulnerable groups:** recognizing that some individuals (e.g. illiterate elderly, women who cannot easily attend public meetings, people with disabilities) may not get the full message in large meetings, the Project will organize tailored sessions. For example, a women-focused meeting facilitated by female staff, or home visits to disabled persons to explain the LRP one-on-one.
- Uploading the Turkish LRP document to the **Project's website** for wider accessibility. This allows any stakeholder with internet access to review the plan.
- Keeping printed **information sheets at local mukhtar offices and community centers** (such as the village coffee house, mukhtar office or agricultural cooperative). This way, community members can refer back to LRP information at any time. Mukhtars will be given extra copies and briefed so they can help disseminate information as well.

The information shared with PAPs will clearly explain: the types of impacts covered by the LRP (what losses are eligible), the overall LRP process and various programs available, the detailed eligibility criteria and entitlements (who gets what compensation or support), the cut-off date and its significance, the application procedures for assistance (how, when, and where PAPs should come forward to claim support or compensation), the grievance mechanism (how to lodge complaints or ask questions, including contact persons), and the Project timeline for LRP implementation (so people know when to expect certain activities). By communicating all these points, PAPs will have a good understanding of what the project will do and what they need to do to receive their due benefits.

10.3.1.2 STAKEHOLDER CONSULTATION ACTIVITIES

In addition to one-way information disclosure, the LRP implementation will include ongoing consultation with PAPs:

- **Community Consultation Meetings Post-Approval:** Shortly after the LRP is approved, the Project will hold community consultations in each affected settlement. In these meetings, beyond just presenting information, the team will actively solicit PAP feedback. Community members can voice any concerns about the LRP, suggest improvements, or seek clarifications. All questions will be answered on the spot if possible or taken note of for follow-up. The CLOs, supported by the Social Affairs Manager, will ensure the format is open and participatory. These consultations will be documented (attendance, issues raised, responses given).
- **GLAC Disclosure Meetings:** Once RAP/LRP identification and entitlements are finalized, the Project will organize Grievance, Livelihood and Compensation (GLAC) disclosure meetings in the affected communities. These meetings will present PAP entitlements, compensation arrangements, and grievance procedures in a clear and accessible manner. Summaries of the LRP will feed into the GLAC documentation, which will then be disclosed to PAPs.
- **The Project's Community Liaison Officers (CLOs)** will maintain an ongoing presence in the communities throughout the life of the LRP. They will visit the villages regularly, be available at designated times to answer questions, and will provide updates as the project

progresses. This ongoing engagement is especially important for implementing programs like vocational training or for updating people about construction schedules that might affect them.

- **Outreach to Vulnerable PAPs:** As noted, separate or additional consultations will be held to ensure vulnerable individuals are consulted. For example, CLOs may do door-to-door visits for particularly vulnerable households to explain the LRP or check on their situation. Small focus-group discussions might be held with groups like women in a certain hamlet, or sharecroppers, if they have distinct concerns. The project will document these discussions and take into account the input when adjusting implementation.

If there are significant changes to the LRP during implementation – for instance, if the entitlement framework is expanded or if new areas end up being affected due to design changes – the Project will re-disclose and re-consult on those changes. New PAPs (if any) will be informed of their entitlements, and existing PAPs will be told of any updates that concern them. This adaptive consultation ensures transparency even if the project scope evolves.

10.3.1.3 DISCLOSURE AND PUBLICATION

Information about how to submit grievances (contact persons, phone numbers, email, physical offices) will be posted in each village and explained during the LRP disclosure meetings. The LRP brochures will also contain a section on the grievance mechanism. Importantly, the Project's CLOs will actively assist PAPs in writing and submitting grievances, especially those who are not literate or who need help articulating the issue. This hands-on assistance ensures everyone can access the GM easily.

Additionally, the CLO team will coordinate with relevant government authorities to resolve certain grievances. For example, if a grievance relates to a government compensation amount being too low, the CLO or Social Affairs Manager will liaise with the District Governorate or Land Registry to obtain information or advocate on behalf of the PAP where appropriate. The Project recognizes that some land acquisition issues may need collaboration between the Project and state authorities, so a cooperative approach is in place.

If future expropriations or land acquisitions occur beyond the current ones, the Project will announce a new cut-off date for those and integrate those PAPs into the same GM system. New grievances arising from future land takings will be handled with the same rigor and process.

10.3.1.4 ONGOING STAKEHOLDER ENGAGEMENT

Engagement does not end once compensation is paid. The Project commits to continuous engagement with PAPs throughout LRP implementation. This includes:

- **Follow-up visits:** After delivering support (like after training or after a compensation payout), the LRP team will visit PAPs to check on their situation. For example, verifying that a livelihood support measure (like given beehives or livestock feed) is yielding the intended benefit, or that a household has managed to re-establish an income source. These follow-ups help identify if any PAP is struggling and might need additional help.
- **Adjustments based on feedback:** The Project will treat the LRP as a living program – if PAPs collectively voice that something isn't working (say the variety of fodder provided is not preferred by their animals, or the timing of trainings conflicts with farming season),

the Project will adjust the approach accordingly. This adaptive management ensures the LRP remains effective and culturally appropriate.

- **Transparent reporting:** The Project will keep communities informed of LRP progress. This could be through village bulletins or meetings where they share how many people have been compensated, how many attended training, what upcoming activities are planned, etc. Such transparency builds trust and also allows community members to see overall how commitments are being fulfilled.

10.3.1.5 REPORTING AND DOCUMENTATION

All community engagement activities will be documented. The project's social team will record the dates of meetings, list of participants, topics discussed, and any grievances or requests raised. Likewise, any corrective measures taken as a result (for example, adding an extra water tanker to reduce dust after community complaints) will be recorded. This documentation will be compiled into quarterly LRP implementation reports which the Project will submit to lenders like IFC/EBRD and share with relevant stakeholders. These reports allow external stakeholders to monitor whether the Project is doing what it promised and if it's responding to issues promptly.

10.3.1.6 INSTITUTIONAL COORDINATION

Successful livelihood restoration also depends on collaboration with various institutions. The Project will work in partnership with:

- **Public institutions** – e.g., TEİAŞ (Turkish Electricity Transmission Corporation) for coordination of grid connection and related infrastructure (ETL), DSİ (State Hydraulic Works) which is handling expropriation, the Land Registry Directorate for land title matters, the Provincial Agriculture and Forestry Directorate (İl Tarım Müdürlüğü) for agricultural support and training, and the Social Services (Sosyal Hizmetler) agencies for coordinating assistance to vulnerable families. Leveraging these agencies' expertise and programs can enhance LRP measures (for instance, inviting government agronomists to trainings or enrolling vulnerable PAPs in state aid programs)
- **Local organizations** – e.g., Mukhtars of each affected settlement, who are key liaisons and can help verify information and mobilize people for meetings; the Chamber of Agriculture and local cooperatives who can support implementation of certain measures (like organizing farmers for training, or distributing materials). These local bodies ensure community buy-in and culturally appropriate delivery of support.
- **Project-internal teams** – especially the Community Liaison Officers (CLOs), E&S staff, and construction supervisors, who will coordinate LRP activities on the ground and ensure timely communication between PAPs, contractors, and institutional partners.

The Project will establish regular communication with these actors. For example, a coordination meeting might be held monthly with the mukhtars of affected villages to discuss LRP progress and any community issues. In summary, a multi-stakeholder approach is being used to maximize the effectiveness of livelihood restoration interventions.

By actively engaging stakeholders, maintaining open communication, and providing mechanisms for feedback and redress, the Project will foster an environment of trust and

cooperation – which is crucial for the smooth implementation of the LRP and ultimately for the restoration of livelihoods of those affected.

11. LRP BUDGET

The successful implementation of the LRP for the Project will require a well-defined and adequately resourced budget. The budget will reflect the scope, geographic spread, and livelihood typologies identified through detailed fieldwork and consultations conducted in March 2025. It will cover both fixed compensation obligations and flexible support mechanisms tailored to seasonal and informal livelihood practices.

11.1 KEY BUDGET COMPONENTS

Key budget components include the following:

- Cash Compensation for Private Land Loss
 - Compensation for defined affected privately owned parcels (following the finalization of the land acquisition lists of the ETL/ access roads).
 - Full replacement value based on independent valuation.
 - Disbursed via official channels in coordination with the Land Registry Directorate and the Project Owner.
- Compensation for Productive Trees and Crops
 - Valuation of olive trees and cultivated crops.
 - Includes loss due to dust, access, or physical disturbance.
 - Based on formulas approved by the Ministry of Agriculture and Forestry (MoAF).
- Unregistered Asset Compensation
 - Covers informal structures such as fences, irrigation systems, beehives.
 - Requires verification via GPS-tagged photos, field validation, and community statements.
- Informal User Compensation and TLS
 - Provision of transitional livelihood support for informal users of treasury or forest lands.
 - Includes small ruminant grazing and hive relocation assistance.
- Fodder and Animal Feed Support
 - Seasonal in-kind provision (hay, concentrate feed) for small livestock
 - Transport support for herders.
 - Contingency budget for alternate grazing arrangements.
- Construction-Related Damage Repair and Compensation
 - Includes crop damage, asset breakage, and soil degradation.
 - Contractor-financed under supervision and damage verification.
- Preventive costs for dust control (road watering), fencing, and signposting.
- Beekeeper Support Measures
 - Relocation of hives, new site identification.
 - Training for hive health and diversification.
 - Compensation for disruption during construction.
- Training and Capacity Building

- Agricultural extension services for youth and vulnerable groups.
- Topics include olive pruning, livestock nutrition, beekeeping, and marketing.
- Delivered in collaboration with Provincial Directorate of Agriculture and cooperatives.
- Vulnerability Assistance Package
 - Prioritized processing and tailored in-kind support (fuelwood, poultry kits).
 - Extra TLS for female-headed and elderly households.
- Grievance Mechanism Operationalization
 - Dedicated resources for complaint intake, verification, resolution, and reporting.
 - Includes data management and communication costs.
- Monitoring and Adaptive Implementation
 - Continuous tracking of grazing access, crop yield, and seasonal patterns.
 - Stakeholder re-consultation and LRP updates as required.

11.2 BUDGET ALLOCATION AND MANAGEMENT

Enerjisa will ensure sufficient allocation of LRP resources within the overall ESMS budget. A dedicated LRP Implementation Budget Line will be established, managed by the Social Affairs Manager under the oversight of Senior Management. Contingency reserves will be included for unforeseen livelihood disruptions. Regular budget updates will be provided in LRP progress reports.

This comprehensive budget structure is designed to ensure that all Project-Affected Persons (PAPs)—including informal and vulnerable users—receive timely, fair, and meaningful support in restoring their livelihoods.

Estimated Budget

The LRP budget has been calculated based on the number of eligible PAPs in each defined entitlement category and standard unit costs for their losses or supports. Each budget item corresponds to a specific category of impact identified in the entitlement matrix – for example, households experiencing significant land take (e.g. $\geq 20\%$ of their income) are allocated transitional livelihood support, PAPs losing productive trees (such as olive groves) receive compensation per tree, and those with unregistered assets or informal land use are provided lump-sum payments for their losses. These unit compensation rates (e.g. TRY per square meter of land, per fruit tree, per affected asset) are derived from current market values and Turkish valuation guidelines. The estimated quantity of units for each category (such as total land area to be acquired, number of trees affected, or number of eligible households) is based on the asset inventory and PAP census conducted for the Project. Each line item also notes the responsible party for delivery – the Client for core land acquisition compensation and livelihood restoration measures, and Contractor for obligations linked to construction-phase impacts (e.g. compensation for unregistered assets or damage during works) – in line with the Project's implementation arrangements and contractual commitments. Table 11-1 below presents the estimated LRP budget. It should be noted that the budget will be updated following further socioeconomic surveys covering the ETL.

TABLE 11-1 LRP BUDGET ESTIMATE

Budget Item	Unit Cost (TRY)	Estimated Quantity	Subtotal (TRY)
Compensation for Private Land Acquisition	1,430 TRY/m ²	TBD (following the finalization of ETL results of the survey for the ETL route)	TBD
Transitional Livelihood Support (TLS) for Informal Users & Vulnerable Households	11,000	65	715,000
Fodder Support for Seasonal Grazing Loss	2,800	55	154,000
Compensation for Seasonal Crop/Yield Loss (Olives, Cereals)	2,200	820	1,804,000
Compensation for Unregistered Assets (Fences, Hives, Irrigation)	10,000	95	950,000
TLS and Relocation Support for Informal Users (Beekeepers/Grazers)	5,000	700	3,500,000
Temporary Access/Passage Compensation (Mazı, Gökpınar)	10,000	12	120,000
Dust-Related Yield Compensation (Olive Groves near Roads)	10,000	18	180,000
Vulnerability Assistance Package (In-kind & Cash Support)	7,500	100	750,000
Agricultural and Livelihood Trainings (Olive, Beekeeping, Youth)	16,000	12	192,000
Total Estimated Budget: ~ (excluding TBD for private land acquisition)			8,365,000 TRY

Note: The above values are preliminary estimates based on market rates as of Q2 2025. These figures will be refined as necessary following detailed asset verification and ongoing consultation with affected stakeholders to ensure accuracy and adequacy prior to final budget allocation.

12. MONITORING AND EVALUATION

The monitoring and evaluation of the LRP implementation will form a core part of the ESMS for the Project. It will ensure that the project's resettlement and livelihood restoration obligations are being fulfilled transparently, effectively, and in line with IFC PS5 and EBRD ESR5.

12.1 OBJECTIVES OF MONITORING AND EVALUATION

Key objectives in M&E for the LRP include the following:

- Track progress of LRP implementation activities
- Identify implementation challenges and propose corrective actions
- Ensure that LRP outcomes align with stated objectives
- Measure the extent to which livelihoods are restored or improved
- Facilitate adaptive management based on participatory feedback

12.2 MONITORING AND EVALUATION METHODS

Monitoring and Evaluation activities aim to ensure that the LRP is implemented effectively and delivers the intended outcomes for PAPs. These activities are designed not only to measure performance but also to provide a continuous feedback loop for adaptive management and inclusive stakeholder engagement.

A combination of qualitative and quantitative methods will be applied:

- **Desk-based Review of Expropriation Data:** Includes analysis of records from the government authority responsible for expropriation covering status by parcel and settlement, number of affected structures, ongoing legal cases, valuation disputes, and updated expropriation plans.
- **Quantitative Household and Mukhtar Surveys:** Designed to assess income restoration, asset recovery, and access to compensation. Survey instruments will mirror the ESIA baseline tool for comparability.
- **Qualitative Focus Group Discussions and Interviews:** Especially with vulnerable groups, women, seasonal workers, informal users, and youth to assess perceived impacts, risks, and satisfaction with support mechanisms.
- **Grievance Mechanism Review:** Regular review of feedback and grievance databases maintained by the Project CLOs and Employer to identify systemic issues and areas for improvement.
- **Participatory Monitoring Tools:** Use of photo evidence, participatory mapping, and real-time interviews with PAPs to validate impacts and support.

12.3 MONITORING COMPONENTS

The LRP monitoring system is structured around four interrelated components—process, output, outcome, and impact monitoring. Each component tracks a specific dimension of implementation performance and is linked to concrete, project-specific Key Performance Indicators (KPIs) relevant to the Project.

TABLE 12-1 PROJECT MONITORING

Monitoring Type	Focus Area	Key Monitoring Topics	Project-specific KPIs
Process Monitoring	Verifies implementation against schedule, procedures, and quality standards. Enables early detection of delays or bottlenecks.	<ul style="list-style-type: none"> Timely delivery of compensation and Transitional Livelihood Support (TLS) On-schedule distribution of livestock fodder and relocation of beehives aligned with seasonal cycles Roll-out of training and employment facilitation initiatives Timely and equitable grievance processing, documentation, and resolution Coordination with third-party stakeholders (e.g., İŞKUR, Provincial Agriculture Directorate) 	<ul style="list-style-type: none"> % of cash compensation delivered before construction starts % of TLS packages distributed within 1 year of impact % of grievances resolved within 30 working days
Output Monitoring	Tracks the tangible results and quantity of support delivered to Project Affected Persons (PAPs).	<ul style="list-style-type: none"> Number of PAPs receiving each type of LRP support (compensation, TLS, training, job facilitation) Quantity of livestock fodder packages and number of beehive relocations Number of training sessions held (agricultural/vocational), disaggregated by gender Number of brochures distributed and community meetings held Number of PAPs managed to access and withdraw compensation deposited by 	<ul style="list-style-type: none"> % of livestock keepers receiving fodder support % of beekeepers supported through hive relocation Number and % of women/youth participating in training % of completion of water pond and water pipes construction (for relocated animal shelter) % of PAPs managed to access and withdraw compensation deposited by

Monitoring Type	Focus Area	Key Monitoring Topics	Project-specific KPIs
Outcome Monitoring	Assesses short- to medium-term effects of LRP on PAP livelihoods. Focuses on effectiveness of restoration efforts.	<ul style="list-style-type: none"> Degree of restoration in agriculture/livestock activities Change in household income structure (e.g., reduction in informal work/migration) Self-reported improvements in food security and resilience 	<ul style="list-style-type: none"> % of PAP households reporting restored or improved income vs. Baseline % reduction in PAPs relying on seasonal or aid-based income % of livestock keepers resuming pre-project herd size
Impact Monitoring	Evaluates long-term impacts on livelihood security and vulnerability. Typically part of final-year audit.	<ul style="list-style-type: none"> Sustainability of income and coping capacity Women's and youth involvement in economic recovery Recovered/improved access to natural resources (e.g., grazing areas) Beneficiary satisfaction with LRP outcomes 	<ul style="list-style-type: none"> % of women-headed households reporting increased income stability % of PAPs reporting full access to previous grazing/resource areas Monitoring of livestock health and productivity for at least one year post-relocation

12.4 MONITORING NUMBER OF HOUSEHOLDS AND RESPONSIBILITIES

The table below summarizes how often each monitoring component will be conducted, how many households it will cover (approximately), and which party is responsible.

TABLE 12-2 MONITORING NUMBER OF HOUSEHOLDS AND RESPONSIBILITIES

Activity	Number of Households	Responsibility
Progress Reporting	Quarterly	Corporate Social Manager / RAP Expert
Grievance Trend Review	Monthly	Corporate Social Manager
Final LRP Audit	End of Implementation	Independent Third Party Evaluator
Adaptive Review of LRP	As Needed	Enerjisa Üretim

12.4.1.1 EXTERNAL AUDIT AND COMPLETION REPORTING

An independent Completion Audit will be conducted to determine whether the LRP objectives have been met, particularly regarding the restoration of livelihoods and the inclusion of vulnerable and informal users. The audit will assess whether compensation and support measures were delivered in a timely, adequate, and participatory manner. Based on audit findings, the Project may continue monitoring or apply additional corrective measures if residual risks remain.

12.4.1.2 RAP/LRP REVISIONS AND FUTURE EXPROPRIATIONS

Should new reroutes, expansions, or future land acquisition be introduced, the RAP/LRP will be updated accordingly. These updates will use the latest available expropriation data and incorporate new vulnerability assessments and stakeholder input.

This M&E framework is designed to ensure that the Project remains responsive, inclusive, and committed to restoring and improving the livelihoods of all affected people throughout the entire LRP cycle.



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