

Yerköy-Kayseri High-Speed Railway (HSR) Project

Resettlement Action Plan Including Livelihood Restoration

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Abbreviations

Abbreviation	Definition
ABI	Affected Business Interview
AoI	Area of Influence
AYGM	General Directorate of Infrastructure Investments
CHS	Community Health and Safety
CIMER	Presidential Communication Centre
CLO	Community Liaison Officer
CLS	Community Level Survey
CLT	Community Liaison Team
Çınar	Çınar Engineering Consulting Inc.
DSI	State Hydraulic Works
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EM	Entitlement Matrix
EP	Equator Principles
EPFI	Equator Principles Financial Institutions
E&S	Environmental and Social
ETL	Energy Transmission Line
E&S	Environmental and Social
ESS	Environmental and Social Standards
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
ETL	Energy Transmission Line
EU	European Union
FGD	Focus Group Discussions
FI	Financial Intermediaries
GBVH	Gender-Based Violence and Harassment
GLAC	Guide to Land Acquisition
Golder	Golder Associates Turkiye Ltd.
GM	Grievance Mechanism
HLS	Household Level Survey
HR	Human Resources
HSE	Health and Safety and Environment
HSR	High-Speed Railway
H&S	Health and Safety
IFC	International Finance Corporation
IFI	International Financing Institutions
ILO	International Labour Organisation
IOI	Institutional and Organizational Interviews
JV	Doğuş-Çelikler-Özkar Joint Venture
KII	Key Informant Interviews

kW	Kilowatt
kW(e)	Kilowatt electric
KWh	Kilowatt hour
LRP	Livelihood Restoration Plan
M ²	Meter square
MoAF	Ministry of Agriculture and Forestry
MoEUCC	Ministry of Environment, Urbanization and Climate Change
MoTI	Republic of Türkiye Ministry of Transport and Infrastructure
N/A	Not Applicable
NGO	Non-governmental Organization
OHS	Occupational Health and Safety
PAP	Project Affected Person
PAH	Project Affected Household
PAS	Project Affected Settlement
PPM	Public Participation Meeting
Project	Yerköy-Kayseri Railway High-Speed Project
PS	Performance Standard
RAP	Resettlement Action Plan
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
SSI	Social Security Institution
TCDD	Republic of Türkiye State Railways
TURKSTAT	Turkish Statistical Institute
UN	United Nations

Glossary of Terms¹

Associated facility—Facilities that are essential to the construction or operation of an IFI-financed project but are not themselves financed by International Financial Institutions (IFIs). The IFC policy on involuntary resettlement may apply to resettlement induced by such facilities.

Compensation—Payment in cash or in kind for an asset or a resource that is acquired or temporarily affected by a project at the time the asset needs to be replaced.

Cut-off date—Date of completion of the census and assets inventory of persons affected by the project. Persons occupying the project area after the cut-off date are not eligible for compensation and/or resettlement assistance. Similarly, assets (such as built structures, crops, fruit trees, and woodlots) established after the date of completion of the assets inventory, or an alternative mutually agreed upon on the date (conditional), will not be compensated.

Economic displacement—Loss of income streams or means of livelihood resulting from the land acquisition or obstructed access to resources (land, water, forest, or other resources) resulting from the construction and/or operation of a project or its associated facilities.

Eligibility—Refers to criteria identifying which affected persons are entitled to receive compensation, resettlement assistance and/or other benefits because of resettlement. Usually established either by law or via policies of International Financial Institutions (IFIs).

Entitlements—The compensation offered to persons, households, groups and/or communities affected by the Project. This includes financial compensation, preferential right to certain employment, the right to participate in livelihood restoration programmes, housing, service provision, transport assistance, and other short-term assistance required to move from one site to another.

Entitled PAP— The Persons with the rights provided under the RAP.

Land expropriation—Process whereby a public authority, usually in return for compensation, requires a person, household, or community to relinquish rights to land that it occupies or otherwise uses.

Project-affected household—Any household which, because of the implementation of a project, loses the right to own, use, or otherwise benefit from a built structure, land (residential, agricultural, or pasture), annual or perennial crops and trees, or any other fixed or moveable asset, either in full or in part, permanently or temporarily.

Project-affected person—Any person who, because of the implementation of a project, loses the right to own, use, or otherwise benefit from a built structure, land (residential, agricultural, or pasture), annual or perennial crops and trees, or any other fixed or moveable asset, either in full or in part, permanently or temporarily. Within the scope of this report, PAPs are considered in two groups according to their impact on the land acquisition:

- Direct-PAPs: Owners, users, or beneficiaries of the affected private and/or public lands.
- Indirect-PAPs: People who live in project affected settlements (PASSs) or people who are indirectly affected due to Project activities (accessibility, irrigation and such) but are not addressed directly.

Project-affected settlements—The villages or neighbourhoods where the lands that are the subject of the project's land use are located.

Physical displacement—Loss of shelter and/or assets resulting from the acquisition of land associated with a project that requires the affected person(s) to move to another location permanently.

¹ Reference to IFC Handbook for Preparing a Resettlement Action Plan

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Replacement cost—The rate of compensation for lost assets must be calculated at full replacement cost, that is, the market value of the assets plus transaction costs. About land and structures, IFC defines “replacement costs” as follows:

- agricultural land: the market value of the land of equal productive use or potential located in the vicinity of the affected land, plus the cost of preparation to levels similar to or better than those of the affected land, plus the cost of any registration and transfer taxes;
- land in urban areas: the market value of the land of equal size and use, with similar or improved public infrastructure facilities and services preferably located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;
- household and public structures: the cost of purchasing or building a new structure, with an area and quality like or better than those of the affected structure, or of repairing a partially affected structure, including labor and contractors’ fees and any registration and transfer taxes.

In determining the replacement cost, depreciation of the asset and the value of salvage materials are not considered, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset.

Resettlement Action Plan (RAP)—The document in which a project sponsor or other responsible entity specifies the procedures that it will follow on how to identify and mitigate potential adverse impacts, compensate for losses, and provide development benefits (to ensure that their current living standards are kept the same or improved) to persons and communities affected by an investment project.

Stakeholders—Any and all of the individuals, groups, organizations, and institutions interested in and potentially affected by a project or having the ability to influence a project.

Unviable land— The name of the remaining part of the expropriated property which is not suitable for cultivation/benefit under certain conditions.

Vulnerable groups—People who by virtue of gender, ethnicity, age, physical or mental disability, economically disadvantaged, or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits.

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CHAPTER 1. INTRODUCTION

1.1 General

This Resettlement Action Plan (RAP) has been prepared to minimize the physical and economic resettlement impacts of the land acquisition process required for the construction of the Yerköy-Kayseri High Speed Railway Project. A total of 2338 parcels are needed entirely or partially for the construction of the components of the project. There are 2095 private lands and 243 public lands in the expropriation corridor containing the needed lands. Although physical resettlement has been minimized, 5 houses still need to be relocated. No workplace relocation is required in the parcels affected by the project's land acquisition.

1.2 Background of the project

The transportation corridors formed by the high-speed railway lines, which are being planned in an integrated manner, will gain strategic importance to increasing human and goods flows. With the provision of a railway connection with the project, transportation through highways will decrease and transportation standards will increase.

With the commissioning of the Ankara-Sivas Railway lines, which are under construction together with the Yerköy-Kayseri High-speed Railway (HSR) Project planned in this context, a fast and reliable transportation network will be available for freight and passenger transportation on the Ankara-Yozgat-Kayseri axis. With the improving transportation standards, economic and commercial relations will be facilitated and increased both on a regional and national scale.

The Project owner is the Republic of Türkiye Ministry of Transport and Infrastructure (MoTI), Directorate General of Infrastructure Investments (AYGM). The Construction Contract was signed between Doğuş-Çelikler-Özkar Joint Venture (shortly JV) and AYGM. After the completion of the construction for the Project, the Project will be commissioned with the transfer of the Project by AYGM to Turkish State Railways (TCDD) including all the structures and other elements included in the Construction Contract.

The tender for the engineering study of the Project, which was organized by General Directorate of TCDD for the construction of the 139 kilometres (86 mi) long Yerköy-Kayseri HSR Project, on November 21, 2014 and ALTINOK Consulting Engineering Limited Liability Company the won the tender on August 14, 2015 and the contract was signed. , On October 13, 2015 site delivery process was realized.

On the 16th of December 2021 the tender for the turn-key, design, build and finance of the Yerköy-Kayseri HSR Project was held and Doguş-Çelikler-Özkar Joint Venture was awarded the contract on 24th of December 2021. The financing process is currently ongoing. Following the financial close, the construction will commence.

The Project will be executed under Public Tender Law, where the Republic of Türkiye – Ministry of Treasury and Finance is the Borrower, and the Directorate General of Infrastructure Investments (AYGM) of the Ministry of Transport and Infrastructure is the Employer and the Project Owner.

Loans will be provided from international financial institutions for the completion of 100% of the project. For this reason, it was aimed to follow a process that complies with international environmental and social standards (ESS) from the very beginning. These international organizations have important standards regarding physical and economic displacement experiences during the land acquisition process. This Resettlement Action Plan & Livelihood Restoration Plan joint report will be in effect throughout the life cycle of the project to address the International Finance Corporation (IFC) standards.

1.3 Project Description

With the planned Yerköy-Kayseri High-speed Railway Project, transportation will be available in terms of both freight and passenger transportation on the Yozgat-Kayseri axis. The 139.545 km railway route will pass through Yozgat Province (Yerköy and Şefaatlı Districts), Nevşehir Province (Kozaklı District), and then pass again through Yozgat Province (Yenifakılı and Boğazlıyan Districts) before entering

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Kayseri Province (Kocasinan District). Transportation will be provided with two separate lines as arrival and departure. With the commissioning of the Project, Ankara-Sivas Railway line, which is under construction, will be connected to Kayseri by making a connection from Yerköy.

The provinces and districts that Project will pass through between 0+000 km and 139+545 km are given in detail below.

- Yozgat Province Yerköy District (0+000 km – 20+200 km)
- Yozgat Province, Şefaati District (20+200 km + 52+700 km)
- Nevşehir Province, Kozaklı District (52+700 km – 68+300 km)
- Yozgat Province, Yenifakılı District (68+300 km – 91+400 km)
- Yozgat Province, Boğazlıyan District (91+400 km – 94+600 km)
- Kayseri Province, Kocasinan District (94+600 km – 139+545 km)

Within the scope of the Project, construction of the structures such as bridges, overpasses, underpasses, culverts and tunnels are planned. Two stations and one siding are planned within the scope of the Project.

The construction phase of the Project will be planned as 1800 days. Following the construction completion, the Project will be commissioned with its transfer from AYGM to MoTI Turkish State Railways (TCDD) including all the structures and other elements included in the Construction Contract.

The 139.545 km long Yerköy-Kayseri High-speed Railway Project will start from Yerköy district of Yozgat Province and will pass through Şefaati, Kozaklı, Yenifakılı, Boğazlıyan, Kocasinan Districts respectively (see **Error! Reference source not found.**). The Project will be connected to the Ankara-Sivas Railway which is currently under construction at Yerköy Station exit and be connected to Kayseri Northern Passage Railway at Kayseri Province. The Project will have two stations between these connection points, namely Şefaati Station and Yenifakılı Station. The 79.0 km-length part of the railway route will be within the provincial borders of Yozgat (Yerköy, Şefaati, Yenifakılı and Boğazlıyan Districts), 15.6 km-length part will be within Nevşehir Province (Kozaklı District) and 44.945 km-length part will be within Kayseri Province (Kocasinan District).

1.4 Construction Components of the Project

1.4.1 Project Components

All Project components including the temporary facilities that will be established and operated/used throughout the construction phase of the Project were considered in identification of the nearest settlements to the Project footprint.

The Project includes approximately 140 km railway and in total 359 Project units including 15 tunnels, 6 escape tunnels, 18 bridges, 118 underpasses, 18 overpasses, 6 cut and cover tunnels and 184 culverts.

Table 1-1: Project Structures

Bridge	18
Overpass	18
Underpass	118
Culvert	184
Tunnel	15 (9 NATM and 6 Cut&Cover)
Escape Tunnel	6 NATM

Stations

One of the two stations planned to be built within the scope of the project is located in the districts of Şefaattli and the other in Yenifakılı.

Bridges

Within the scope of the project, 18 bridges will be built to pass the structures such as streams and highways on the route. The lengths of the bridges planned to be built on the project route and their positions on the route are given in Appendix C1.

Underpasses and Overpasses

Underpasses and overpasses have been planned to ensure the continuity of the fields and highways on the railway route and to make agricultural crossings. The lengths of the 118 underpasses and 18 overpasses planned on the project route and their positions on the route are given in the Appendix C2 and C3.

Culverts

It is planned to construct 176 culverts within the scope of the project, where small water features are crossed. Technical details of the said culverts are given in Appendix C4.

Tunnels

The parts that cannot be excavated due to topographical conditions will be crossed by tunnels. A total of 15 tunnels; cut-and-cover or drilled. The length of the tunnels is 16,301m in total. Apart from that, 6 escape tunnels with a total length of 2.658 km are also planned for the project. Technical details for the tunnels are given in Appendix C5.

1.4.2 Associated Facilities

In addition to the main components, associated components will be used for the construction and operation phases. These facilities may be used temporarily or permanently but, in any case, may have an impact on livelihoods. Therefore, within the scope of ESIA and this RAP, land use for the following temporary components has been considered:

- Camp sites
- Quarries
- Borrow sites
- Storage Area
- Batching plants
- Mobile crushing plants
- Dump sites (Excess excavated material storage area)

The Energy Transmission Line (ETL) required for the railway line will be supplied from the substations located around the line route, and a network system will be established by erecting electricity poles. However, the ETLs that will have to be built in about 3 years have not been designed yet. During the design of these lines, it is planned to make route selections along public lands and road routes as much as possible and to avoid private parcels. It is committed that the expropriation, which will be made in case of need, will be carried out within the framework determined in the RAP report in accordance with the IFC PS5 rules. To this, an addendum report of RAP, including the assessment of potential additional land acquisition impacts or potential impacts on livelihood, will be prepared when the ETL designs are finalized.

Within the scope of the project, it is planned to establish 9 camp sites in the following locations. Locations of all other associated facilities have been shown in Table 3-1 and Project Layout (Figure 1-1). Potential impacts for these locations are considered in ESIA Report. Impacts of land take on settlements are also evaluated within the scope of RAP.

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Table 1-2 Locations of associated components

Settlement	Substations	Camp Site	Quarry & Borrow Sites	Storage Area	Concrete Batching Plant	Mobile crushing plants
Yozgat Yerköy						
Yamuklar		X				
Cakcak			X			
Karaosmanoğlu		X		X	X	
Yüzüncü Yıl				X		
Delice			X	X		
Küçükfelek			X			
Kördeve			X			X
Aşağıelmahacılı			X			
Yozgat Şefaati						
Başköy				X		
Çaydoğan	X					
Kazlıuşağı		X			X	
Tahiroğlu				X		
Hamzali				X		
Kabacıoğlu			X			
Yozgat Yenifakılı						
Fakılı		X			X	
Mehmet Akif Ersoy				X		
Yazlak				X		
Yozgat Boğazlıyan						
Özler-Fetih			X	X		
Nevşehir Kozaklı						
Kanlıca				X		
Üçkuyu			X			X
Kayseri Kocasinan						
Boğazköprü	X	X		X	X	
Düver		X			X	
Kalkancık		X		X	X	
Molu			X			X

Settlement	Substations	Camp Site	Quarry & Borrow Sites	Storage Area	Concrete Batching Plant	Mobile crushing plants
Yemliha			X			
Paşalı	X					
Yuvalı			X			
Total	3	7	11	12	6	3

Source: ESIA, 2022

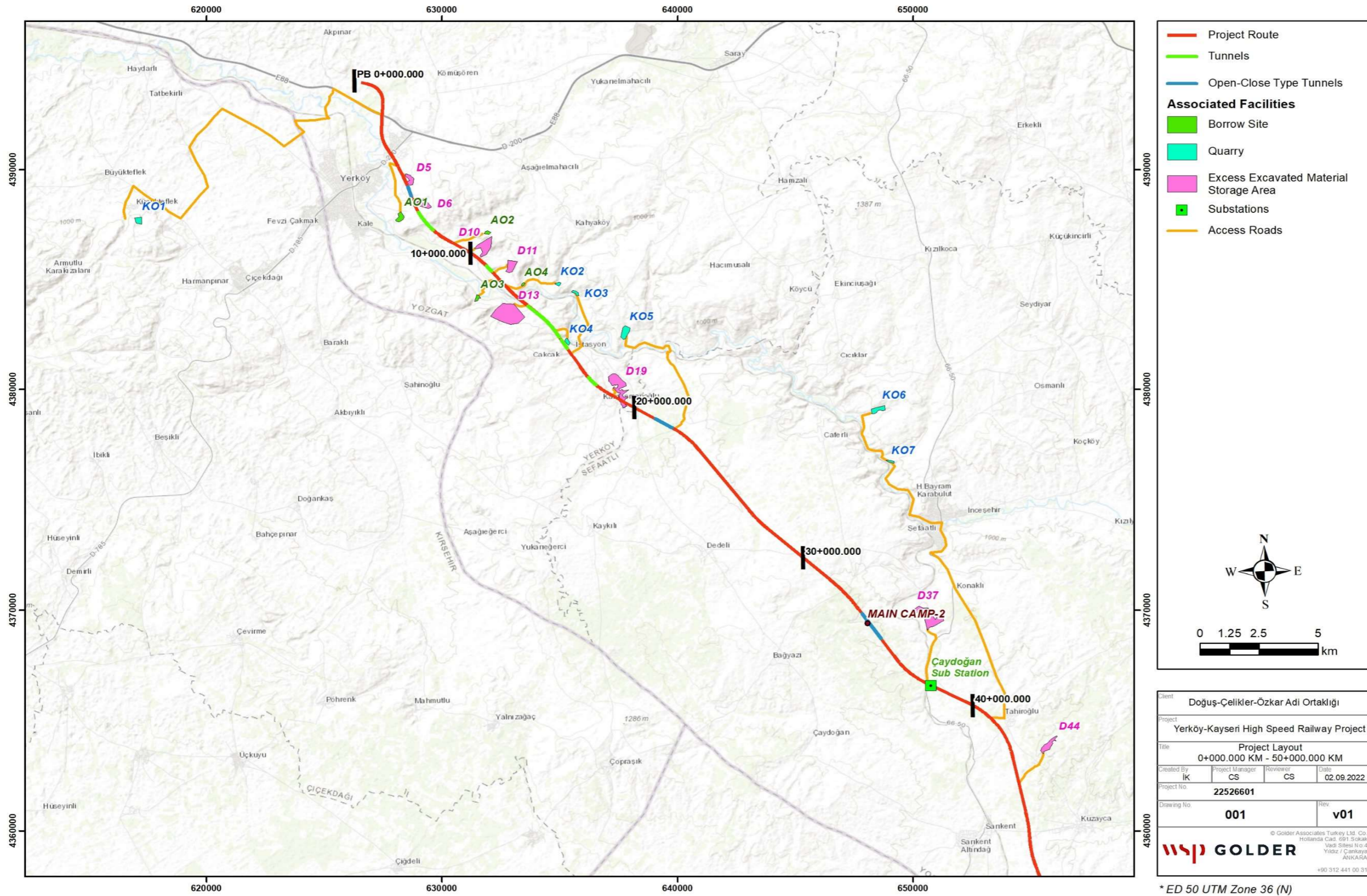


Figure 1-1 Project Layout 1 (Source: ESIA, 2022)

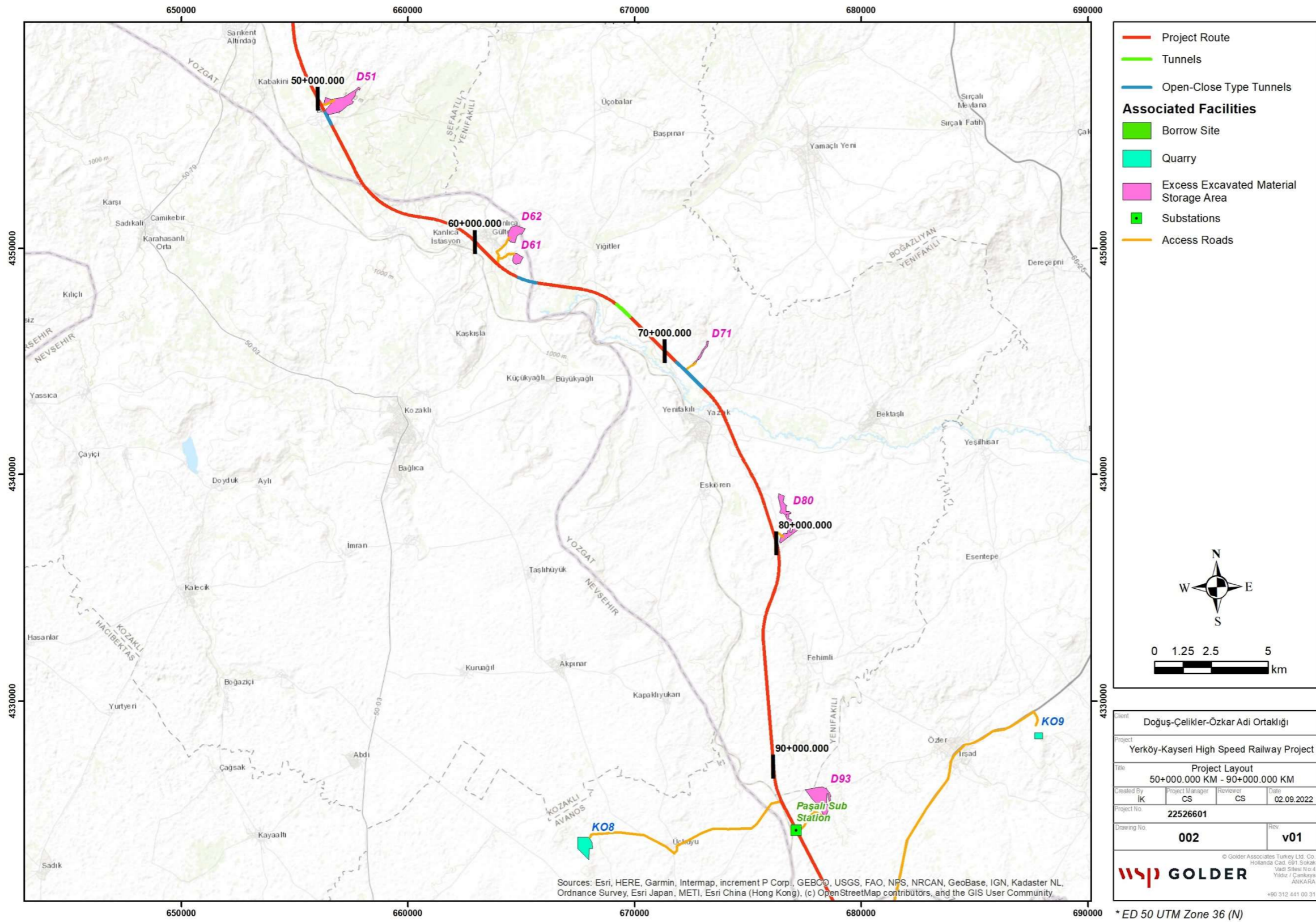


Figure 1-2 Project Layout 2 (Source: ESIA, 2022)

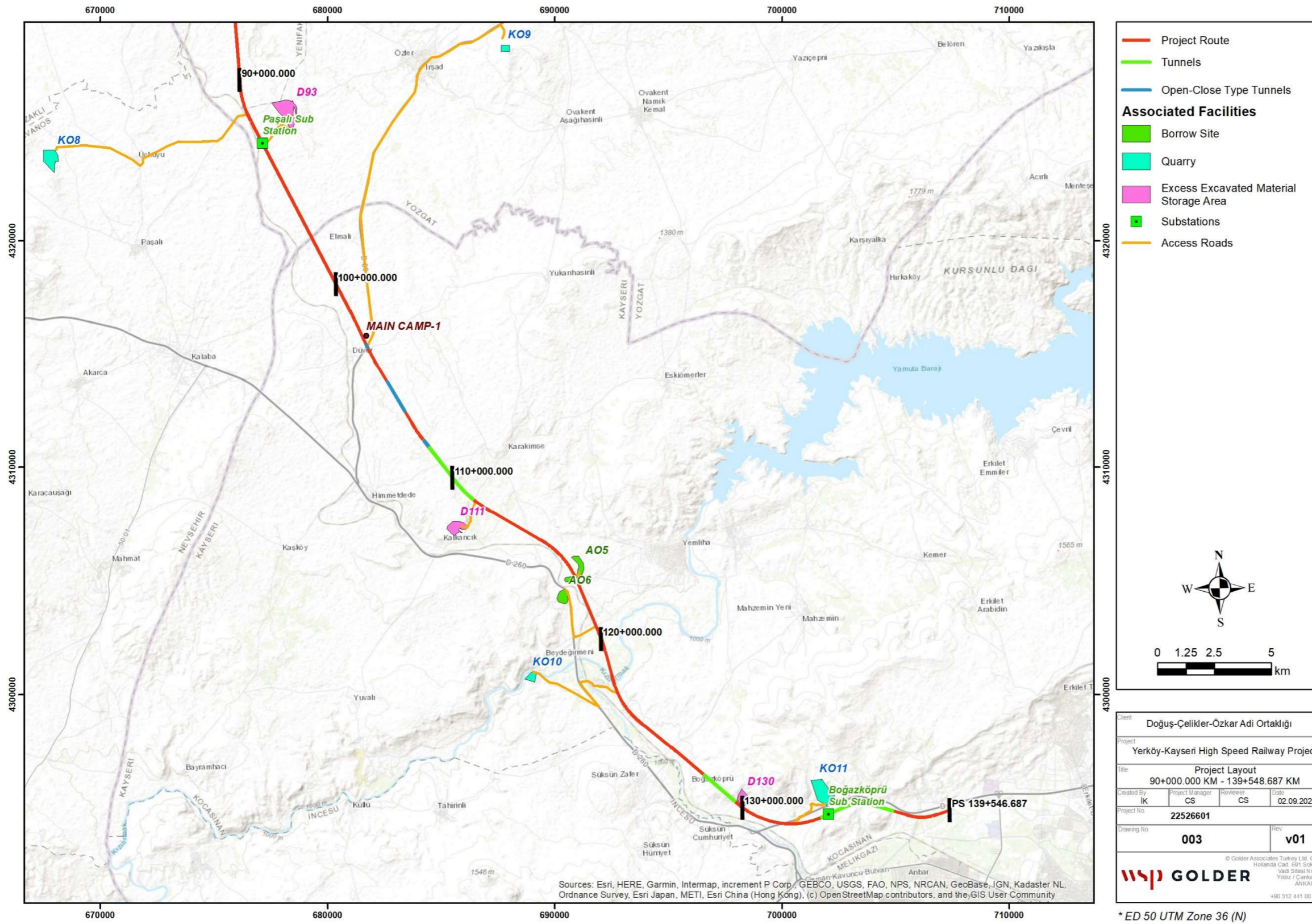


Figure 1-3 Project Layout 3 (Source: ESIA, 2022)

1.5 Scope and Objectives of RAP

The impacts of the Project land acquisition are set out in the ESIA and the basic principles of reducing these impacts are specified. This RAP provides detailed information about the impacts of the Project's land requirement on the affected people/assets and further describes the approaches and measures to be adopted to prevent or minimize these impacts.

The local socio-economic context of the RAP is based on the findings of the field survey conducted in June 2022. RAP has been prepared to define and discuss the resettlement impacts associated with the Project activities.

The Project acts in accordance with all IFC E&S Performance Standards, mainly in Performance Standard 5 within this report, to minimize the impacts on the affected people and explains how to implement measures to minimize the resettlement impacts of the Project and monitor the effectiveness of mitigation measures through this RAP. The main objectives of IFC E&S performance standards are:

- To avoid, and when avoidance is not possible, minimize physical displacement by exploring alternative project designs,
- To avoid forced eviction,
- To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from the land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected,
- To store or improve, the livelihoods and standards of living of displaced persons,
- To store or improve, living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

Within the scope of the Project, physical resettlement has already been tried to be avoided as much as possible during the route selection phase and physical displacement is minimized. Route revisions made due to E&S reasons are given in Affected Buildings section.

The planned route has been chosen to ensure that people's income sources are affected at a minimum level. However, there are very few affected residences, non-residential buildings and agricultural lands (See CHAPTER 5. AFFECTED SETTLEMENTS, HOUSEHOLDS, LANDS, ASSETS, LIVELIHOODS AND IMPACT ASSESSMENT AFFECTED SETTLEMENTS, HOUSEHOLDS, LANDS, ASSETS, LIVELIHOODS). In this context, the main purpose of RAP is to minimize or provide mitigating measures that may cause physical and economic displacement problems arising from the land requirement of the Project. For this main purpose, this document provides:

- A preliminary analysis of the potential land acquisition-based impacts,
- Description of the approach that will be adopted in the RAP,
- When avoidance is not possible, minimizing physical and economic displacement by exploring alternative project designs,
- Measures to improve living conditions for potentially physically and/or economically displaced persons,
- Identifying the PAP groups/types that have been and will be physically and/or economically displaced,
- Anticipation, identification and avoidance, or where avoidance is not possible, minimizing adverse social and economic impacts arising from the land acquisition or possible restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected.

1.6 Evaluation of Alternatives

In the "Crossing Survey Report" prepared by General Directorate of Turkish State Railways Administration Department of Survey, Project and Investment on 09.12.2015, alternatives were

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evaluated and an approach to minimizing the effects was adopted. Within the scope of the Project, physical resettlement has already been tried to be avoided as much as possible during route selection phase and physical displacement is minimized. Precautions were taken and retaining walls were planned to avoid the effects of structures on the affected lands. For details see Section 5.1. Affected Buildings. The planned route has been chosen to ensure that people's income sources are affected at a minimum level. However, there are very few affected residences, non-residential buildings, and agricultural lands. For details please see CHAPTER 5. AFFECTED SETTLEMENTS, HOUSEHOLDS, LANDS, ASSETS, LIVELIHOODS AND IMPACT ASSESMENT.

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CHAPTER 2. REGULATORY FRAMEWORK

This Chapter describes the legal framework that will be effective throughout the land acquisition and complementary RAP works. In this context, the Turkish legislations, International Finance Corporation (IFC) Performance Standards, and Equator Principles will be taken into consideration.

2.1 National Legal and Regulatory Framework

2.1.1 Turkish Constitution

The Turkish Constitution, Article 46, under Subsection 3 of the Section 3 with the heading of “Social and Economic Rights and Responsibilities”, addresses expropriation issues. The article states that whenever a development project serves the public interest, the government is authorized to initiate and execute an expropriation process. All hydropower, airport, highway and other roads, and similar large-scale infrastructure projects are considered to be in the public interest and provide the basis for Article 46. Article 46 is dedicated to the Expropriation Law.

The specific article of the Constitution states that, except in special cases, the compensation value and the decreed increased value will be paid in full and cash to the users. The compensation of the farmers farming the acquired land is paid in full and cash, in any case. Private users on public lands are not addressed by local laws or regulations unless they have an official rental agreement with the government.

Even when land is acquired for a public interest, expropriation agencies cannot benefit from the expropriation of private lands and assets without paying into a bank account the value of the expropriated assets in advance of land entry.

Articles 44 and 45 of the Constitution indirectly relate to resettlement activities. Article 44 addresses land ownership and stipulates the responsibility of the government to protect the landless and those with inadequate land. Article 45 describes the responsibility of the government to support those working on agricultural and stockbreeding activities. Article 56 reaffirms the right of all to live in a healthy environment.

2.1.2 Expropriation Law (No. 2942)

If and when it is required for the public interest, Expropriation Law sets the procedures of the expropriation of immovable owned by real persons or legal identities subject to private law, the calculation of the expropriation fee and the registration of the immovable asset and its appurtenances in the name of the expropriation administration.

The relevant articles of the Law that will be referred to during the Project’s land acquisition activities are explained briefly in the following sections.

Article 3 - Basis for Expropriation

For the implementation of large projects that concern issues such as energy, irrigation, afforestation etc., administrations may expropriate by paying the expropriation fee for the immovables, resources and their easement rights in cash or as a down payment in equal instalments, as required for the conduct of public services or interventions they are obliged to provide according to laws.

Article 4 – Establishment of Easement Right

An easement is a legal right to use of land of another, without the right to possession of that land, or to take any part of the soil or produce of such land. By Article 4 of the Law No: 2942, instead of expropriating an immovable property, an easement can be granted for a certain portion, elevation and depth of the immovable property or for the resource in Türkiye, if adequate for the purpose. Therefore, easement rights can be established for the immovable property in favour of the administration without the need for changing its owner in the title deed office to keep the integrity of the land.

However, if the use of the property right of the lands is not violated, the provision of no expropriation regarding the lands is also clearly stated in the same article. Article 4 of the Expropriation Law suggests "Provided that the use of the property rights of the owners are not prevented and the necessary

measures are taken in terms of life and property safety, all kinds of bridges, viaducts and similar transportation lines and subways, tunnels and similar rail transport systems can be built under or above the lands, based on the public interest. If the use of the property right of the land is not prevented, no expropriation is made regarding the land." For that particular Project, easement right will be established in the tunnels of the project.

Article 5 – Authorities that Decide on Public Interest

Article 5 of the Law specifies the authorized entities that can take the public interest decision. In the case of the Project, this decision will be acquired by AYGM.

Article 7 – Initial Procedures to be Performed for Expropriation and Administrative Annotation

The administration that is to perform the expropriation prepares or commissions a scaled plan indicating the borders, surface area and type of the immovable assets of resources on which expropriation is to be constituted or appurtenances are to be constituted by way of expropriation, enables that the owners of the expropriated immovable asset, the ownerships if no title deed registrations are present and their addresses by binding them to documents through an inquiry it would conduct on the land registry, tax and population registry records as well as additional inquiries.

After the administration decides on expropriation, the related annotation is dropped into the title deed offices where the mentioned immovable asset is registered. If the owner changes after the annotation notification date, the title deed administration is obliged to notify the administration of any changes to occur in the ownership or the rights in kind that are separate from the ownership.

If the document to be obtained from the court indicating that a request for the identification of the expropriation fee and the registration in the name of the administration as per Article 10 is not submitted to the title deed offices within six months starting on the annotation date, this annotation is automatically dropped from title deed records by the title deed offices.

Article 8 – Procurement Procedure

According to Article 8, after the expropriation decision is taken, the administration will appoint one or more valuation commissions (consisting of at least 3 people) to value immovables. Additionally, one or more negotiation commissions (again consisting of at least 3 people) will be assigned for negotiations.

After the administration has notified the owner of its intent to take over the immovable, shall the owner or its representative apply to the administration (within 15 days after notification) with the intent of selling the immovable, negotiation meetings are held on the date identified by the commission and if an agreement is reached on an amount that is not more than the estimated value, an official agreement protocol is signed. With this sign-off, all rights are agreed to be transferred to the administration and any further legal attempt at any objection will not be considered.

The administration prepares the amount agreed in the protocol within forty-five (45) days and asks the owner to transfer the ownership rights in the name of the administration on the date specified in the title deed. The expropriation fee is paid as soon as the transfer of rights is realized.

In cases where an agreement is not reached or transfer is not realized, action is taken in court either for Article 27 (Urgent Expropriation) or Article 10 (Determination of Land Value and Registration Case) of this Law.

Article 10 – Identification of the Expropriation Compensation by Court and Registration of Immovable in the Name of the Administration

Article 10 states that, if the expropriation cannot be realized through procurement for any reason, the administration applies to the court of the first instance in the locale of the immovable and requests that the expropriation compensation for the immovable asset be identified and a decision be made for its registration in the name of the administration in return for the payment of this fee.

Within 30 days of the application of the administration, the Court notifies the owner of the immovables through an annotated invitation on the date of hearing. To those whose addresses could not be found after inquiries, an announcement is made according to Notification Law (No. 7201) inviting them to

attend the hearing. The Court also publishes information on the expropriation at least once in a local newspaper (if there is any) issued in the location of the immovable and in one of the newspapers circulated across Türkiye.

On the day of the hearing, the judge invites the parties to reach an agreement on the value of the immovable. If an agreement is reached, the judge considers this compensation amount to be the expropriation fee. In cases where an agreement is not reached, the judge schedules a site survey (within ten days) to identify the value of the immovable asset and a date for the second hearing (within thirty days after the expedition).

On the second hearing, if the parties fail to agree on the value once again, the judge will assign a new expert committee for the valuation within fifteen days and then identifies a fair and equitable expropriation fee by referencing both the reports and statements of the parties and experts. The identified fee is the expropriation fee of the immovable, resource or its easement rights. The Court grants fifteen days to the administration for the fee to be deposited in a bank on behalf of the owner. In cases where the right holder could not be identified, the court decides on the registration of the immovable in the name of the administration under the circumstances that the bank receipt indicating the amount was blocked to be given to the right holder to be revealed in the future and that this decision is notified to the title deed department and the bank where the fee was deposited. The provision on registration is definitive and the parties reserve their rights for appeal pertaining to the fee.

Article 11 – Principles for the Identification of the Expropriation Fee

This article states that “The expert committee to be formed as per Article 15 will go to the location of the immovable or resource to be expropriated with the court delegation, hear the statements of related parties present and draft a justified report that identifies the expropriation fee”.

The identification of the value of the immovable does not consider any value increase caused by the public works and services realized through expropriation as well as any profit that would be caused by future uses.

During the establishment of easement rights, shall there be any value decreases in the immovable or the resource due to expropriation will be justified. This decrease in value is the easement expropriation cost. Valuation procedures and principles are presented in detail under the title of CHAPTER 3. LAND NEED AND ACQUISITION PROCESS.

Article 12 – Partial Expropriation

The value of the partially expropriated immovable is defined in this Article, whereas it also states that if the part of the immovable excluded from expropriation is suitable for utilization under the public works legislation, the expenses and cost required for the restoration of any installations to a usable status will be calculated and added to the expropriation fee.

The value of the immovable property that is partially expropriated shall be estimated as follows:

- a) Provided that there does not exist any change in the value of the non-affected part of the immovable property, the value of the partially expropriated immovable property shall be equivalent to the proportion to be expropriated at the amount determined for that immovable property according to the provisions of Article 11.
- b) If there is a decrease in the value of the non-affected part, the value of the partially expropriated immovable property will consist of the expropriation fee determined for the affected part of the immovable property in compliance with paragraph (a) plus the amount corresponding to the decrease of the value of the non-affected part.

Shall the remaining part of a partially expropriated immovable is not suitable for utilization, this part also may be expropriated upon the written application made by the legal owner within thirty days of the notification of the expropriation decision in cases where no lawsuits were filed in the administrative court against the expropriation procedure.

Unviable lands:

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If the remaining part of the expropriated property is not economically suitable for cultivation/benefit or is not accessible, an application for expropriation of the remaining property must be made within thirty days after the submission of a written notice without the need to file a lawsuit in the administrative court (pr.7). However, AYGM proactively includes unviable lands (small and/or misshaped) in the expropriation amount right from the beginning.

Article 14 – Right to a Lawsuit

A lawsuit for cancellation of land acquisition decision in the administrative court or for correction of the material errors may be filed against the expropriation procedure within thirty days as of the date of notification issued by the court as per Article 10 - the date of notification is replaced by the date of the announcement in the newspaper by the court for those who could not be notified- by the owner of the immovable asset subjected to expropriation.

Article 18 – Dispute on the Ownership

The administration identifies whether there are any disputes on the immovable to be expropriated by performing an inquiry at the title deed offices, cadastral offices and civil courts in the location of the immovable. Shall the inquiries indicate that there is a dispute on its ownership or that it was subject to a lawsuit, the entirety of documents prepared as per Article 10 is submitted to the civil court of first the instance of the location of the immovable and is requested that the expropriation fee of the immovable is determined as well as its registration is made in the name of the administration in return for the payment to be made to the right holder as soon as they have been determined as per the ongoing dispute case.

The initial and consequent instalments of the expropriation fee identified by the court are deposited in the time deposit accounts with quarterly terms each at the bank designated by the court.

The process to be followed to resolve the disputes on ownership will be in line with the procedures defined in the relevant legislation.

Article 25 – Limitation of Rights and Transfer of Ownership to the Administration

The expropriation procedure is initiated through the notification conveyed by the Court as per the Article 10, regarding exercising of rights and fulfilment of obligations. The transfer of ownership to the administration is realized based on the decision for registration taken by the Court.

The owner of the immovable loses his/her rights to engage in activities such as construction or cultivation or to make fundamental changes in the current structure of the immovable after the date of the registration decision taken by the Court. The value of activities performed after this date is not considered.

An additional paragraph added in 2013 states that for large projects such as dams, irrigation networks and pipelines, highways, railways, harbours and airports, the decision for the public interest is announced in the mukhtar's office of the neighbourhood and/or village where the immovable to be expropriated is located. After the last day of the announcement (public interest), the cost of the fixed installations on the immovable and the trees planted are not considered in the identification of the expropriation fee. This limitation for the immovable may not be more than five years after the announcement has been made.

Article 27 – Urgent Expropriation

For the expropriation of immovable required in cases of need or urgency for the defence of the country or in extraordinary situations decided by the President or envisaged in special laws as part of the enforcement of the Law on the Obligation for National Defence number 3634, the immovable asset at stake may be confiscated using the administration depositing the amount for the value of the said immovable asset identified by the court as per the principles in Article 10 (Amended statement: 24/04/2001 - 4650/Article 15) and via the experts selected as per Article 15 at the bank stated in the invitation and announcement made according to Article 10 (Amended statement:24/04/2001 - 4650/Article 15) within seven days upon the request by the related administration with the procedures other than the value appreciation to be completed later on.

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Urgent Expropriation, Article 27 of the Law

- In cases where a resolution will be issued by President or in extraordinary cases prescribed by special laws,
- as for the expropriation of immovable property, immovable property can be seized by the court by depositing in the name of the owner the value of that immovable property as determined by experts to be selected as per Article 15 within the framework of principles in Article 10 into the bank as specified in the invitation and notice to be made according to Article 10 within seven days upon the request of the relevant administration on the condition that actions other than valuation are completed later on.

In terms of urgent expropriation, land valuation performed by experts appointed by the court is only a determination and is not decisive. After this price is determined and deposited by the Administration into the account number as determined by the court, actions stipulated in Articles 8, 9 and 10 shall apply.

Article 30 – Transfer of an Immovable Owned by an Administration to Another Administration

This article articulates that immovable, resources and easement rights owned by public legal persons and agencies may not be expropriated by another public legal person or agency.

The administration that requires the immovable, resource or easement rights identifies the fee according to Article 8 of Expropriation Law. It lodges a written application at the administration owning the asset by stating the amount it would pay based on this fee. If the owner of the asset fails to abide by the transfer and respond within sixty days, the conflict is settled via an affirmed decision within two months after being inspected by the relevant administrative office of the Council of State upon application by the receiving administration.

If the parties fail to reach an agreement on the price, the receiving administration lodges an application at the court according to the procedure written in Article 10 within thirty days of the notification date of the Council of State decision asking for the expropriation fee to be identified. In the adjuration process to be conducted in this case, the court does not enforce the provisions of the Law dated 9/6/1938 and number 3533.

A period of fifteen days is granted to the receiving administration for the fee identified as the expropriation fee as per the procedure envisaged in Article 10 to be deposited in the bank specified by the administration to be given to the asset-owning administration and the receipt of the fee deposited to be submitted. This period may be extended as necessary only once by the court. The court decides on the registration of the immovable asset in the name of the administration and the expropriation fee to be paid to the asset-owning administration upon the submission of the receipt indicating that the expropriation fee was deposited by the receiving administration in the bank in the name of the asset-owning administration and this decision is notified to the title deed department and the bank where the money was deposited. The provision on registration is definitive and the parties reserve their rights for appeal concerning the fee.

The immovable, resource and the easement rights thus taken over are deemed to have been received via expropriation and they cannot be used for transfer purposes or any public purposes other than those allowed by the transferring administration. Otherwise, the transferring administration may receive the immovable back as per Article 23. This matter is annotated in the field of declarations in the title deed log.

2.1.3 Resettlement Law (No. 5543)

Resettlement activities are regulated by Resettlement Law No. 5543 and Regulation for the Execution of Resettlement Law. Resettlement Law deals with the families applying to related governmental agencies in the Project region and requesting government-assisted resettlement. Resettlement assistance from the government is provided for entitled families while expropriation compensation payments are paid to all individuals possessing immovable properties in the Project area.

The Resettlement Law provides for government-assisted resettlement in rural and urban areas. However, this law can only be used by the Ministry of Environment, Urbanization and Climate Change

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(MoEUCC) and the institutions authorized by it. AYGM and TCDD are not among the authorized institutions.

2.1.4 Forest Law (No. 6831)

By the Forest Law, the Project must obtain permission from the Ministry of Agriculture and Forestry (MoAF) to perform activities in forests or lands classified as forests and is required to indemnify damages to public forests resulting from the construction of the railway.

The use of forestry and pastureland is regulated by Forest Law No.6831 and Pasture Law No. 4342. Registration of the ownership or easement rights will be carried out following Cadastral Law No. 3402, and Land Registry Code (Official Gazette No. 28738).

According to Law (17.06.2004 article 5192/1), the Ministry has the authority to permit the use of forestland. This permission cannot be longer than 49 years.

2.1.5 Pasture Law (No. 4342)

According to this Law based on the views of the Pastureland Commission the Governors in Project affected provinces have the authority to permit altering the classification of pasturelands.

Neither the right of the public nor of the specific users of pastures is recognized under the local legislative framework. Compensation will be paid for pasture lands to the relevant public agencies. However, in institutions subject to the general budget such as AYGM, no payment is made for these parcels.

2.1.6 Cadastral Law (No. 3402)

The Cadastral Law determines the boundaries and legal status of immovable assets based on the national coordinate system and the cadastral or the topographic cadastral maps to register land and to constitute the basis of the spatial information system as the Civil Law (No. 4721) stipulates.

2.1.7 Agricultural Reform Law (No. 3083)

The Agricultural Reform Law regulates several issues for lands that are irrigated and that have been determined by the President. The Law covers matters regarding land consolidation and allocation of land for other purposes rather than agriculture in case of need. It is stipulated in the Law that in areas where agricultural production has no longer economic viability due to fragmentation, land consolidation works will be realized to prevent fragmentation that will result in affecting both on the livelihood and the work force of any family.

2.1.8 Notification Law (No. 7201)

The Notification Law No. 7201, with its amendments in 2003, 2008 and 2011, provides the basis for a process of notification for property owners. It consists of specific procedures to be followed to reach a range of public and private owners, including those whose addresses are unknown. According to the Law, notification provisions include mail to known addresses; seeking support from local authorities; publication through an advertisement placed in a national newspaper published throughout the country in significant numbers; and electronic communications. The Law guides communicating with different categories of shareholders, including resident owners, absentee owners, owners outside Türkiye, and various public agencies. The specificity and broadness of the Law support international policies' emphasis on communications and consultation.

The Notification Law details the process of notification for landowners and land users whose address is unknown as determined by the Notification Officer. According to the modifications made in the Law in 2011 (Article 10), the notification can be made wherever appropriate for the affected owner and/or to the last address known. If the person cannot be reached, notification is sent to the last known residence and is directed to the village or municipal quarter mukhtars.

2.1.9 Land Registry Code (Official Gazette No. 28738)

This code aims to keep the land registry records in order concerning Civil Law (No. 4721). It comprises of the principles and procedures pertaining to ownership, limited real and individual rights of immovable assets, and their entry, amendment, cancellation and rectification to the land registry.

Some other national laws indirectly related to land acquisition and RAP/LRP are also applied when necessary:

- Regulation on Control of Soil Contamination and Point Source Contaminated Lands (Official Gazette dated 08.06.2010 and numbered 27605)
- Control of Excavated Soil, Construction and Demolition Wastes (Official Gazette dated 18.03.2004 and numbered 25406)
- Soil Protection and Land Use Law (Official Gazette dated 19.07.2005 and numbered 5403)
- 'Regulation on Building in Disaster Areas (Official Gazette dated 14.07.2007 and numbered 26582)
- Regulation on Building Earthquake in Türkiye (Official Gazette dated 18.03.2018 and numbered 30364)
- Law on Protection of Personal Data (No: 6698)

2.2 International Standards

2.2.1 IFC Performance Standards

IFC's Sustainability Framework articulates the Corporation's strategic commitment to sustainable development and is an integral part of IFC's approach to risk management. The Sustainability Framework comprises IFC's Policy and Performance Standards on Environmental and Social Sustainability, and IFC's Access to Information Policy. The Policy on Environmental and Social Sustainability describes IFC's commitments, roles, and responsibilities related to environmental and social sustainability. IFC's Access to Information Policy reflects IFC's commitment to transparency and good governance in its operations and outlines the Corporation's institutional disclosure obligations regarding its investment and advisory services. The Performance Standards are directed towards clients, guiding how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business sustainably, including stakeholder engagement and disclosure obligations of the client about project-level activities. In the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced.

According to the Guidance Note 5 of IFC, where land acquisition and resettlement are the responsibility of the government, the client will collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with this Performance Standard. In addition, where government capacity is limited, the client will play an active role during resettlement planning, implementation, and monitoring². For this reason, this RAP will also reveal the task sharing between AYGM and JV.

IFC uses the Sustainability Framework along with other strategies, policies, and initiatives to direct the business activities of the Corporation to achieve its overall development objectives. The Performance Standards may also be applied by other financial institutions. Together, the eight Performance Standards establish standards that the client is to meet throughout the life of investment by IFC:

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
- Performance Standard 2: Labour and Working Conditions

² IFC Guidance Note 5 (2012) https://www.ifc.org/wps/wcm/connect/61320ff7-0e9a-4908-bef5-5c9671c8ddfd/GN5_English_2012.pdf?MOD=AJPERES&CVID=mRQjWGZ

- Performance Standard 3: Resource Efficiency and Pollution Prevention
- Performance Standard 4: Community Health, Safety, and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Performance Standard 7: Indigenous Peoples
- Performance Standard 8: Cultural Heritage

The fifth standard in this list form the basis of this RAP.

PS 5: Land Acquisition and Involuntary Resettlement³

Performance Standard 5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons that use this land. Involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) because of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement.

This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail. JV will collaborate with the AYGM to achieve the objectives of IFC PS 5.

This Performance Standard applies to physical and/or economic displacement resulting from the following types of land-related transactions:

- Land rights or land use rights acquired through expropriation or other compulsory procedures per the legal system of the host country,
- Land rights or land use rights acquired through negotiated settlements with property owners or those with legal rights to the land if failure to reach settlement would have resulted in expropriation or other compulsory procedures,
- Project situations where involuntary restrictions on land use and access to natural resources cause a community or groups within a community to lose access to resource usage where they have traditional or recognizable usage rights,
- Certain project situations requiring evictions of people occupying land without formal, traditional, or recognizable usage rights,
- Restriction on access to land or use of other resources including communal property and natural resources such as marine and aquatic resources, timber and non-timber forest products, freshwater, medicinal plants, hunting and gathering grounds and grazing and cropping areas.

According to the standard, in the case of physical displacement, the Client will develop a Resettlement Action Plan that covers, at a minimum, the applicable requirements of this Performance Standard regardless of the number of people affected. This will include compensation at full replacement cost for land and other assets lost. The Plan will be designed to mitigate the negative impacts of displacement; identify development opportunities; develop a resettlement budget and schedule and establish the entitlements of all categories of affected persons (including host communities). Particular attention will be paid to the needs of the poor and the vulnerable. The client will document all transactions to acquire land rights, as well as compensation measures and relocation activities.

If people living in the Project area are required to move to another location, the client will (i) offer displaced persons choices among feasible resettlement options, including adequate replacement housing or cash compensation where appropriate; and (ii) provide relocation assistance suited to the needs of each group of displaced persons. New resettlement sites built for displaced persons must offer

³ IFC Performance Standard 5 (2012) https://www.ifc.org/wps/wcm/connect/75de96d4-ed36-4bdb-8050-400be02bf2d9/PS5_English_2012.pdf?MOD=AJPERES&CVID=jqex59b

improved living conditions. The displaced persons' preferences concerning relocating in pre-existing communities and groups will be taken into consideration. Existing social and cultural institutions of the displaced persons and any host communities will be respected.

In the case of physically displaced persons under paragraph 17 (i) or (ii), the client will offer the choice of replacement property of equal or higher value, security of tenure, equivalent or better characteristics, and advantages of location or cash compensation where appropriate. Compensation in kind should be considered in lieu of cash. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.

PS 1: Assessment and Management of Environmental and Social Risks and Impacts⁴

Performance Standard 1 establishes the importance of (i) integrated assessment to identify the environmental and social impacts, risks, and opportunities of projects; (ii) effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them; and (iii) the client's management of environmental and social performance throughout the life of the Project. Performance Standards 2 through 8 establish objectives and requirements to avoid, minimize, and where residual impacts remain, to compensate/offset for risks and impacts to workers, Affected Communities, and the environment. Where environmental or social risks and impacts are identified, the client is required to manage them through its Environmental and Social Management System (ESMS) consistent with Performance Standard 1. Under this standard, JV has been preparing ESIA and ESMP documents per international standards.

Another issue that draws attention within the scope of PS 1 and is important for the Project is the role sharing between the private sector and the government.

2.2.2 Equator Principles 4⁵

The Equator Principles (EP) is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.

As per the fourth version of the EPs (July 2020), all Equator Principles Financial Institutions (EPFIs) must implement EP 4 by 1 October 2020. EP 4 comprises 10 principles⁶. Principles relevant to the RAP, as listed below:

- Principle 1: Review and Categorization
- Principle 2: Environmental and Social Assessment
- Principle 3: Applicable Environmental and Social Standards
- Principle 4: Environmental and Social Management System and Equator Principles Action Plan
- Principle 5: Stakeholder Engagement
- Principle 6: Grievance Mechanism
- Principle 7: Independent Review
- Principle 8: Covenants
- Principle 9: Independent Monitoring and Reporting
- Principle 10: Reporting and Transparency

The relevant criteria for the RAP are under Principles 3, 5, 6 and 9.

Principle 3: Applicable Environmental and Social Standards

⁴ IFC Performance Standard 1 (2012) https://www.ifc.org/wps/wcm/connect/8804e6fb-bd51-4822-92cf-3dfd8221be28/PS1_English_2012.pdf?MOD=AJPERES&CVID=jiVQlfe

⁵ The Equator Principles, July 2020, www.equator-principles.com

⁶ <https://equator-principles.com/wp-content/uploads/2020/05/The-Equator-Principles-July-2020-v2.pdf>.

The Assessment process should, in the first instance, address compliance with relevant host country laws, regulations and permits that pertain to environmental and social issues.

EPFIs operate in diverse markets: some with robust environmental and social governance, legislation systems and institutional capacity designed to protect their people and the environment; and some with evolving technical and institutional capacity to manage environmental and social issues.

Principle 5: Stakeholder Engagement

For Projects with potentially significant adverse impacts on Affected Communities, the client will conduct an Informed Consultation and Participation process. The client will tailor its consultation process to:

- the risks and impacts of the Project,
- the Project's phase of development,
- the language preferences of the affected communities,
- their decision-making processes,
- and the needs of disadvantaged and vulnerable groups.

Principle 6: Grievance Mechanism (GM)

Grievance mechanisms are required to be scaled to the risks and impacts of the Project, and will seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate, readily accessible, at no cost, and without retribution to the party that originated the issue or concern. Grievance mechanisms should not impede access to judicial or administrative remedies. The client will inform Affected Communities and Workers about the grievance mechanisms during the Stakeholder Engagement process.

Principle 9: Monitoring and Reporting

To assess Project compliance with the Equator Principles after Financial Close and over the life of the loan, the EPFI will require independent monitoring and reporting. Internal and external monitoring activities are planned for this RAP.

2.3 Gap Analysis between National Legislation and International Standards

There are some gaps between international standards (IFC, EBRD and Equator Principles) and national legislation regarding the preparation of RAP. RAP includes additional measures to eliminate gaps such as Census and Baseline information, Cut-Off Dates, Full Replacement Value and Compensation for lands and fixed assets, Requirement to prepare a Resettlement Action Plan, Measures for Vulnerable Persons, Monitoring and Evaluation (M&E), Information Disclosure, Project-level Grievance Mechanisms (GM), etc. The main gaps between Turkish Law and IFC Policies are summarized in the table below. The table also contains the Client's mitigation measures.

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Table 2-1 The main gaps between Turkish Law and IFC Policies

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
Avoidance and Minimization	According to IFC PS 5 involuntary resettlement should be avoided where feasible or minimized.	There is no provision regarding avoiding and minimization of resettlement in Turkish Expropriation Law. However, physical displacement of local communities is not preferred by the state because of its high social and economic costs.	There is a legal gap, but there is no gap in practice.	JV has prepared a RAP and defined the entitlements. JV and AYGM will act together in their implementation. Route selection criteria addressed to avoid potential resettlement.
Census and Baseline information and cut-off-dates	According to PS 5, when land acquisition or restrictions on land use are unavoidable, the Borrower will, as part of the environmental and social assessment, conduct a census to identify the persons who will be affected by the Project, to establish an inventory of land and assets to be affected, to determine who will be eligible for compensation and assistance, and to discourage ineligible persons, such as opportunistic settlers, from claiming benefits.	Turkish Law requires preparation of inventory of assets. Land acquisition through expropriation requires the preparation of a census (full count) of affected immovable assets, and a full list of their owners.	National requirement is limited to census of immovable assets and legal titleholders. Census and baseline information on Project affected populations as defined by IFC PS5, including tenants, users of communal land, and land holders/occupants without legal or customary title are not required.	The inventory of assets will be prepared by AYGM. AYGM will identify the users, tenants and informal users of the affected parcels in all settlements and ensure compensations are paid under construction responsibility before starting the construction. Census and Baseline studies can be carried out by JV on behalf of AYGM. The cut-off date is the date when the "asset inventory observation" is made and the assets on the land are recorded.
Requirement to prepare a Resettlement Action Plan	According to IFC PS 5, in the case of economic and / or physical displacement, the Borrower will develop a Resettlement Action Plan.	No legal provisioning forces the Project proponents to prepare resettlement action plan under Turkish Law.	Resettlement planning is a key gap, since resettlement-related documentation only includes cadastral information, asset list and compensations. Livelihood	JV has prepared this RAP to address economic and physical displacement in line with IFC PS5.

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
			impacts and losses are not addressed.	
Full Replacement Value and Compensation	<p>According to PS 5, when land acquisition or restrictions on land use (whether permanent or temporary) cannot be avoided, the Borrower will offer affected persons compensation at replacement cost, and other assistance as may be necessary to help them improve or at least restore their standards of living or livelihoods.</p> <p>PS 5 states that the Borrower will offer the choice of replacement property of equal or higher value, with security of tenure, equivalent or better characteristics, and advantages of location, or cash compensation at replacement cost.</p> <p>Economically displaced persons who are without legally recognizable claims to land will be compensated for lost assets other than land (such as crops, irrigation infrastructure and other improvements made to the land), at full replacement cost.</p>	<p>Valuation of agricultural land depends on capitalization of annual net income calculated by taking market prices into account.</p> <p>Buildings are compensated by use of their cost of construction given by reference values defined by MoEUC and market value. However, depreciation and demolition costs are deducted from calculated values.</p>	<p>Lands and buildings are not compensated at full replacement value.</p> <p>Compensations of trees and other fixed assets are paid following national Land Expropriation Law in cash to property owners. This payment is not a full replacement cost as it deducts certain items (depreciation, cutting costs, etc.).</p>	<p>This approach identifies the final value required to provide compensation following national requirements, however, it does not meet full replacement value as required by PS5, and as such additional compensation is required to meet replacement value for lands, trees, and fixed assets including the buildings.</p> <p>This gap will be covered through the RAP Fund of the Project.</p>
Loss of Business	In cases where land acquisition or restrictions on land use affect commercial structures, affected business owners will be compensated for the cost of re-establishing	National legislation provided compensation only for the loss of property and/or structures.	National legislation does not have provisions for the compensation of business owners for the loss of	To meet the requirements of PS5, land acquisition effects on business activity have been evaluated within

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
	commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery, or other equipment.		income caused by expropriation.	the scope of this RAP and additional entitlements have been defined. Preventing loss of business also prevents workers from losing jobs and wages. However, workers were considered a vulnerable group.
Compensation for Loss of Communal Assets	For persons whose livelihoods are natural resource-based and where project-related restrictions on access are envisaged, implementation of measures will be made to either allow continued access to affected resources or provide access to alternative resources with equivalent livelihood-earning potential and accessibility. Where appropriate, benefits and compensation associated with natural resource usage may be collective in nature rather than directly oriented towards individuals or households.	Communal assets are compensated according to Article 30 of Expropriation Law. Article 30 of Expropriation Law No. 2942 articulates that immovable, resources and easement rights owned by public legal persons and agencies may not be expropriated by another public legal person or agency. Properties owned by public institutions cannot be expropriated but only can be a subject to transfer. If there is no transfer in question allowed the dispute is solved in the Supreme Court. There is no compensation for displaced persons benefiting from pasture lands and forest lands.	Communal users of public lands and common properties such as pastures, forestry lands, treasury lands or lands under the jurisdiction of other state bodies (municipalities, etc.) are not recognized and/or compensated.	If there has been loss of income due to land acquisition in the use of communal assets, community level or household level compensations will be provided from RAP Fund.
Treatment of squatters / informal land users	IFC PS 5 states that Project-related losses of the affected people should be compensated in full and in cash before the actual acquisition of immovable assets or access to land. These users should be added entitled to compensation.	Renters of houses and/or workplaces, tenant users of the land, users of public and forest areas and merchants without immovable property are not entitled to expropriation compensation	There is no compensation in Turkish Law for informal users/squatters on public lands. Eligibility is based on legal ownership of land. Users of such lands are not compensated.	Within the scope of RAP, informal user groups were identified and incorporated into entitlements Informal users of the public agricultural lands will also be compensated for crops through the RAP Fund.

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
Measures for Vulnerable Persons	IFC states that particular attention should be paid to the needs of vulnerable groups, especially those below poverty line, the landless, the elderly, women and children. Livelihood restoration planning should provide special assistance to women, minorities, or vulnerable groups.	Turkish legislation does not specify vulnerable groups under Expropriation Law. However, under the Turkish Constitution, the State guarantees its citizens to continue their lives in peace and security, and also socioeconomically encourages them to reach a higher standard of living. In this context, the State applies several rules and measures to protect and support its needy, weak, helpless, and homeless citizens.	Turkish Land Expropriation Law does not address the vulnerability. While the process considers social issues such as tensions, and neighbourhood relations, it does not specify an approach for vulnerability and does not identify a strategy to ease the transition of vulnerable groups.	Within the scope of RAP, vulnerable groups were identified and entitled.
Transitional Livelihood Support (TLS)	According to PS5, the borrower will provide transitional support to all economically displaced.	Transitional support is available only for the government-led resettlement.	There needs to be a budget available for transitional support.	RAP Fund includes TLS.
Monitoring and Evaluation (M&E)	M&E is required for projects that cannot avoid physical and economic displacement. Resettlement and livelihood restoration of the affected persons should be monitored for such projects.	No provisions for monitoring the implementation or impacts of expropriation or resettlement.	M&E needs to have a plan and a budget.	RAP includes a M&E section.
Information Disclosure	IFC emphasizes disclosure of information and expects the Borrower to provide Affected Communities with access to relevant information on: (i) the purpose, nature, and scale of the Project; (ii) the duration of proposed	Public participation meetings are conducted by the requirements of the national EIA Regulation as part of the EIA process. This allows consultation with the Project-affected communities to a certain extent during the scoping phase of the national EIA process.	Disclosure content is limited to EIA and does not include social issues / concerns.	SEP describes in detail Project disclosure. RAP will be disclosed according to SEP.

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
	<p>project activities; (iii) any risks to and potential impacts on such communities and relevant mitigation measures; (iv) the envisaged stakeholder engagement process; and (v) the grievance mechanism.</p>	<p>Upon completion, EIA disclosure is compulsory. Public disclosure/information meeting is officially announced 10 days before the meeting.</p>		
<p>Project-level Grievance Mechanisms (GM)</p>	<p>Where there are Affected Communities, the client will establish a grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance.</p>	<p>Land acquisition process recognizes the right to object of the PAPs. Objections are recorded and responded to in writing.</p> <p>In the expropriation process under national law, the owner's consent is sought for the immovable property in the first instance but not always consent is achieved, and expropriation becomes compulsory.</p> <p>Expropriation involves compulsory appropriation of the immovable property by the State for public interest. However, Expropriation Law No. 2942 allows that the owner and occupant of the immovable property subject to expropriation and other concerned parties may file actions against the expropriation procedure or appraised values and errors of fact before judicial courts.</p> <p>Reference can also be made to the Law on the Use of the Right to Petition no 3071 and Law on the Right to Information No 4982 Right to Information No 4982 states "Institutions are required to apply administrative and technical measures to provide every kind of information and document, with the exceptions set out in this</p>	<p>There is no grievance mechanism requirement.</p>	<p>The GM will allow the problems of PAPs to be resolved quickly, fairly and transparently without resorting to legal remedies. The functioning of the mechanism is presented in detail in the SEP.</p>

Gap Subject	IFC Standards	Turkish Legislation	Gaps	Responsibilities for filling the gaps
		<p>law, to provide the information for applicants; and to review and decide on the applications for access to information promptly, effectively and correctly.</p> <p>There is the Presidential Communication Centre (CIMER) which is a central unit where public complaints are handled.</p>		

CHAPTER 3. LAND NEED AND ACQUISITION PROCESS

3.1 Land Need of the Project

Some lands are needed for the implementation of the Yerköy-Kayseri HSR Project. For the construction of the 139,545 m long railway, required a total of 2338 parcels. 92% of these are private lands owned by individuals (See Figure 3-1).

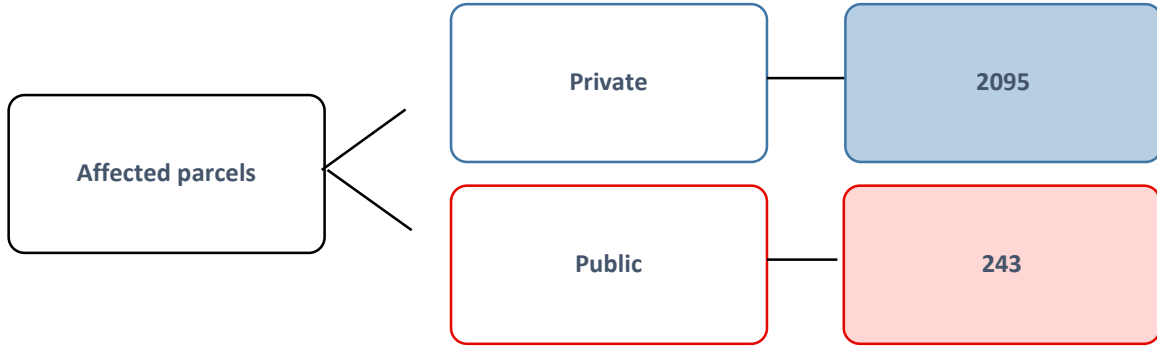


Figure 3-1 Classification of affected parcel lands

The affected lands are located in 36 settlements in 3 provinces. Distribution of parcel numbers by settlements is presented in Table 3-1.

Table 3-1 Numbers of affected parcels per settlements

Province	District	Settlement	No. of affected parcels	No. of Private lands	No. of Public lands
YOZGAT	YERKÖY	YAMUKLAR	42	40	2
		CAKCAK	29	11	18
		ESKİYERKÖY	23	11	12
		KAHYA	9	6	3
		KARAOŞMANOĞLU	35	30	5
		YÜZÜNCÜ YIL	142	120	22
		DELİCE	44	39	5
	ŞEFAATLİ	HAMZALI	56	54	2
		KUZAYCA	148	81	67
		AKÇAKOYUNLU	71	71	0
		ALİFAKILI	19	19	0
		BAŞKÖY	42	33	9
		CAFERLİ	10	10	0
		CANKILI	9	9	0
		ÇAYDOĞAN	22	21	1
		DEDELİ	40	40	0
		KAZLIUŞAĞI	127	127	0
		TAHİROĞLU	113	108	5

Province	District	Settlement	No. of affected parcels	No. of Private lands	No. of Public lands
	YENİFAKILI	YİĞİTLER	109	109	0
		FEHİMLİ	90	73	17
		MEHMETAKİFERSOY	83	80	3
		YAZLAK	120	111	9
	BOĞAZLIYAN	ÖZLER-FETİH	13	9	4
NEVŞEHİR	KOZAKLI	KANLICA	111	107	4
		KARASENİR	100	97	3
KAYSERİ	KOCASINAN	BOĞAZKÖPRÜ	73	63	10
		BEYDEĞİRMENİ	35	28	7
		DÜVER	140	136	4
		ELMALI	66	66	0
		HİMMETDEDE	73	71	2
		KALKANCIK	22	22	0
			29	29	0
		KARAKİMSE	9	9	0
		MAHZEMİN	41	36	5
		MOLU	8	6	2
		OYMAAĞAÇ	58	55	3
YEMLİHA	177	158	19		
TOTAL			2338	2095	243

The settlements affected by the project are marked on the map below according to the number of affected parcels.

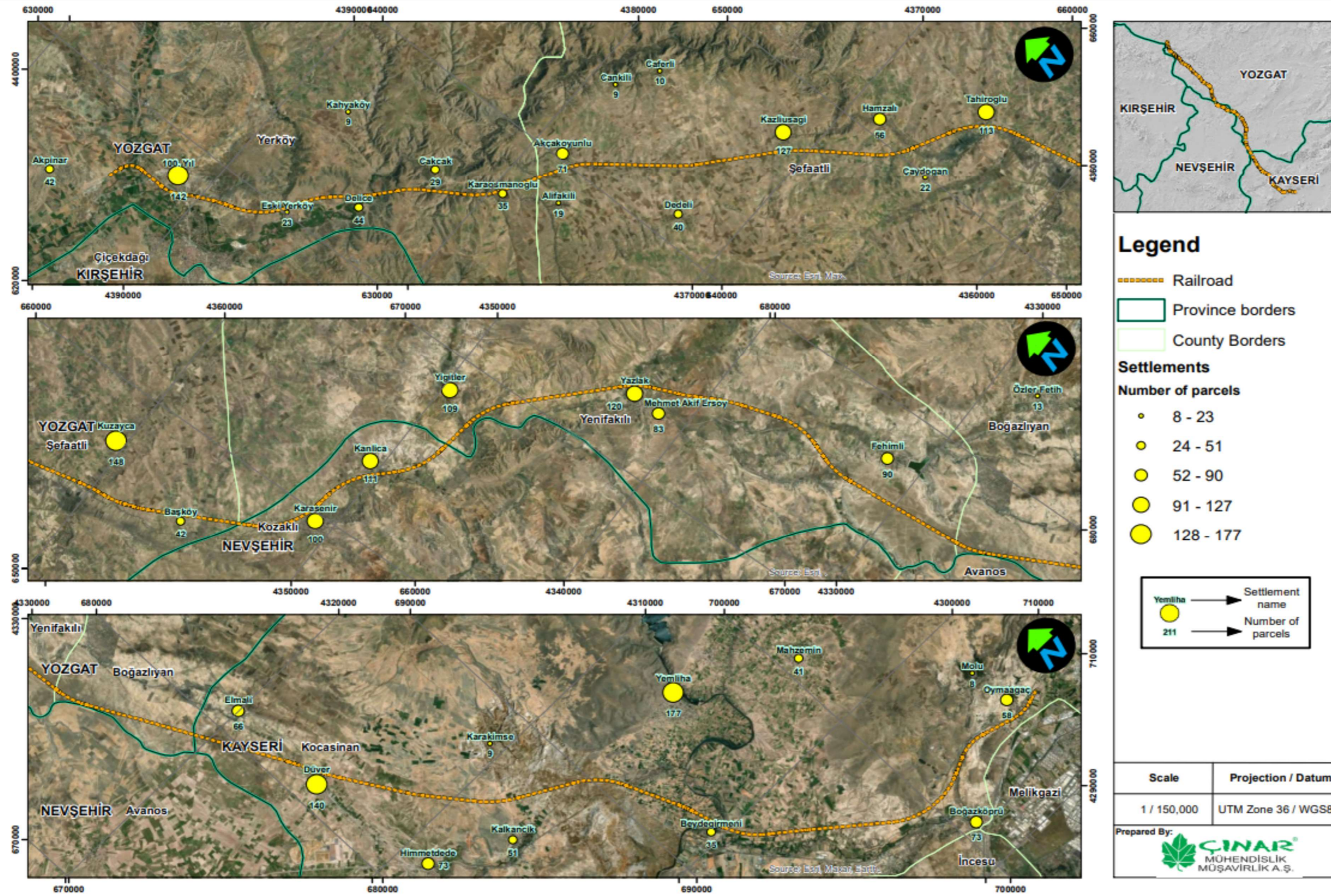


Figure 3-2 PASs by number of affected total parcels

3.2 Acquisition of Private Lands

Although the lands that will be affected by the project have been identified, the expropriation process has not yet started. Public benefit and urgent expropriation decision was taken by TCDD for the project on 6 April 2018. These decisions show the legal compliance of the project. However, as per the legislation, these decisions must be taken again by AYGM with the transfer of the project to AYGM. Once the detailed engineering studies are approved, the necessary decisions will be taken immediately. As of this date, as the first stage of the expropriation process, the preparations for the Census and Asset Inventory suitable for PS5 will be started. Based on past project experiences, AYGM can access all users' information through field studies and Farmer Registration System (ÇKS), Beekeeping Registration System, Animal Registration System, etc. records.

Project construction could be only conducted after the owner or users are offered a compensation package in line with the requirements of IFC PS5, and the compensation is paid.

According to the Turkish Republic Expropriation Law (No: 2942, Year: 1983), the land acquisition stages will take place as presented in Figure 3-3. AYGM will also include RAP stages in this flow for a land acquisition process in line with IFC standards.

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Figure 3-3 Land take and delivery process

There are three types of land rights to be obtained within the scope of the Project. These are;

- **Permanent Acquisition or Ownership right:** Ownership rights mean permanent land acquisition. The land expropriation is permanent, and the ownership right is registered under the name of the administration. Since a permanent facility will be built on the transferred land, the former owner can not use the land.
- **Permanent Easement Right:** The parcel is not divided; this right keeps the original owner as title deed holder but establishes right (as annotation) in favour of the administration.

Since the permanent facility (tunnels or viaducts) passes under or above the transferred land, the landowner will be able to continue using the land with certain restrictions (such as not being able to build houses).

- **Land Rentals through Lease Contracts:** In case of any temporary land need (e.g., for the camp site, storage area) land can be rented for a certain period under the terms and rates mutually agreed between the Contractor and the landowner. After the contract expires, the land will be reinstated and returned to its owner in its original condition.

3.3 National Valuation Methodology

Under the Turkish legal framework, a valuation committee consisting of a minimum of three persons internally appointed by the agency responsible for land acquisition determines the estimated value of the immovable property to be expropriated, having regard to the information and documents to be obtained from expert persons, institutions and authorities.

3.3.1 Valuation for lands (Permanent Acquisition)

3.3.1.1 Agricultural lands

Net Income Capitalisation is the valuation method used for calculating compensation about the loss of agricultural land in Türkiye.

The net income from Project affected agricultural land is determined based on the following steps:

- Gross income is calculated by multiplying the quantity of the annual crop produced by each land parcel by the crop unit price (e.g., a price per kg) for the relevant valuation year.
- Net income is obtained by subtracting the production costs associated with the annual crop from each land parcel, from the gross income for that crop.

The net income is then multiplied by the capitalisation rate, to obtain the national valuation of the compensation.

The formula used during valuation of the agricultural lands is $R / F = K^7$

The capitalisation rate is a key metric for the valuation of agricultural land. The net income of affected agricultural land is multiplied by this rate to determine its current value. The average capitalisation rate is calculated by dividing the yield of the crop (determined by the Ministry of Agriculture and Forestry annually, and its Provincial Administrations, each year) by the crop unit price. The independent asset valuation surveyors will then adjust the value of the land parcel depending on the specific characteristics (positive and negative) of the agricultural land being valued. Positive land characteristics will decrease the capitalisation rate, while negative characteristics will increase it.

Factors that positively affect the capitalisation rate (i.e., decrease the capitalisation rate) and therefore increase the calculated value of the agricultural land parcel are as follows:

- Proximity to a city or town;
- Proximity to access roads (land, railway, airway);
- Favourable transportation conditions;
- Buildings (if any) in good condition;
- Undivided land;
- Smooth and well-shaped land;
- Security and safety of land;
- Ease of purchasing and selling;
- Land having title deed registration;
- Cadastral surveys⁵⁶ completed for land;
- High population densities;

⁷ R: Net income (gross income - production costs)

F: the capitalisation rate (risk related to the capital invested in agricultural land)

K: Value (national valuation of compensation)

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- Easily changeable rotational cultivation system (applicability of crop diversity); and
- Favourable irrigation conditions, if it is irrigated land.

Factors that negatively affect the capitalisation rate (i.e. increase the capitalisation rate) and therefore decrease the calculated value of the agricultural land parcel would be the inverse of those listed above.

To ensure the net income capitalisation valuation has been correctly implemented, the independent asset valuation surveyors visit the land parcels to be expropriated to identify both the current land use, and to determine all the factors that may affect the final calculated value of the land parcel as defined in national legislation. This approach identifies the final value required to provide compensation in accordance with national requirements, however, it does not meet full replacement value as required by PS5, and as such additional compensation is required to meet replacement value for agricultural land. The method to meet the compensation requirement in the replacement price is described in CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY section.

Unviable Lands

If the Project divides a land parcel to the extent that the remaining part(s) are not suitable for further use or access is restricted, then this is becoming an issue in terms of economic benefits or accessibility conditions. For such cases, during the land acquisition process, AYGM pro-actively takes action; evaluates the conditions and will take action prior. AYGM proactively includes unviable lands (small and/or misshaped) in the expropriation amount right from the beginning.

3.3.1.2 Non-agricultural lands

'Market Comparison Valuation Method' is the methodology used for calculating the value of non-agricultural land parcels in Türkiye. This valuation method for non-agricultural land parcels, defined explicitly in national legislation, is calculated by comparing the land parcel being valued to the sale prices of non-agricultural land parcels with similar characteristics.

3.3.2 Valuation for permanent easement

By national legislation, an easement can be granted for a certain portion of a land parcel (or elevation/depth over/underground level) instead of expropriation. Easement agreements do not require the owner of the land to be changed in the name of the administration, and that the integrity of the land is maintained (agricultural and non-agricultural land).

The easement cost is calculated, in accordance with national legislation, as the difference between the value of the land before and after the investment. The loss in value of the land due to the easement will be derived from the lost economic potential of the land.

It should be noted the court practises (precedents) restrict the permanent easement value to 50% of permanent acquisition value for non-agricultural lands and that 35% for agricultural lands.

3.3.3 Valuation for standing crops

The valuation for affected crops is calculated based on the actual annual crop unit price values which can vary from year to year. The actual seasonal crop values are announced by the Ministry of Agriculture and Forestry and announced annually. However, the product unit prices published in the official gazette belong to the previous year and the inflation rate has been high in Türkiye and throughout the world in recent periods.

Allowing the harvest of standing crops as much as possible is the primary method.

3.3.4 Valuation for affected trees and other fixed assets

As per the Expropriation Law, a full tree count is carried out as part of the asset inventory update for each land parcel. This count records the type, age and diameter of all trees and other fixed assets in the expropriation corridor for the Project preferably with the property owners where possible. The national valuation method for compensating the value of a tree, is based on the following two criteria:

- Timber value; and
- Number of fruits produced by the tree.

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The calculation of the timber value of a tree, and the average amount of fruit production, is informed by details such as the type, diameter, length and volume of the tree. The annual gross income from the tree is calculated based on the sum of the timber value and the income from the fruit sales (at average regional prices per standardised weight). The net income is then calculated by subtracting the cost of maintaining the productivity of the tree and the surrounding area, from the annual gross income.

The final value calculated for affected trees and other fixed assets meets national requirements, however, it does not meet PS5 requirements, and as such additional compensation is required for affected trees as described in CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY.

3.3.5 Valuation for residential and non-residential structures

The valuation of residential and non-residential structures to be expropriated will be carried out by asset valuation surveyors under national legislation using set unit prices. These valuations will be based on the official unit prices of structures made from different primary materials (such as stone, brick, or wood) published annually by the Ministry of Environment, Urbanisation and Climate Change. These cost prices paid to the owner are prepared in line with the cost method which considers the completion ratio, cost of depreciation and debris.

The final value calculated for residential and non-residential structures for payment to the owner meets national requirements, however, it does not meet PS5 requirements, and as such additional compensation is required for residential and non-residential structures which are to be expropriated. Detailed information on additional compensations, relocation supports, and other entitlements is presented in CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY.

3.4 Acquisition of Public Lands

3.4.1 AYGM will also undertake the acquisition, transfer and entry of land registered with other government departments. Forestlands

Forest land (wholly owned by the Ministry of Agriculture and Forestry) will be purchased through long-term lease (49 years) agreed by the local Forestry Directorates. Subsequent permissions are obtained for AYGM.

3.4.2 Treasury Lands

The acquisition of Treasury land is processed by correspondence and no payment is made for these plots.

3.4.3 Lands belonging to other public institutions

Land owned by other state authorities (such as municipalities, Water and Sewerage Administration, General Directorate of Highways) is subject to Article 30 of the Land Acquisition Law. This process is very similar to private land ownership, but the negotiation is carried out in written correspondence. If the price offer made by AYGM is accepted by the authority, meaning that agreement is reached, then payment is made and title deed transfer to AYGM is completed. In case the owner entity does not consent or respond within 60 days to the petition, AYGM shall approach the Council of State of Appeals (“Danıştay”) to resolve the issue within 60 days (in line with the Article 30 of the Expropriation Law). The relevant public landowner may accept the transfer of right but may object to the land value. In this case, the Article 10 court process will be applied.

3.4.4 Pasturelands

Land allocated for pasture will be acquired through changing the status from pastureland to Treasury land and will be treated as Treasury land.

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3.4.5 Common Lands of the Villages

Land allocated to the villages will be acquired through changing the status from pastureland to Treasury land and will be treated as Treasury land.

3.4.6 TCDD

There will be no land acquisition of TCDD land, with the understanding the land will be transferred back to TCDD after the completion of construction.

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CHAPTER 4. DATA COLLECTION METHODOLOGY

The main strategy of this RAP is to bridge the gaps between national legislation and IFC standards against physical and economic displacement. The socio-economic impacts of the Project's land acquisition were identified to plan the implementations necessary to close these gaps. A participatory approach was adopted in identifying these impacts, and a field study was planned based on consultations with the owners, users, beneficiaries of the lands affected by the land acquisition of the Project, and officials of local institutions and organizations.

A combination of qualitative and quantitative research methods was planned for the field study. The study was conducted in two phases:

- Phase 1: PAS visits, survey, and interviews with PAPs (27 June – 2 July 2022)
- Phase 2: Institution- workplace interviews and gap filling studies for the identified gaps, if any, after the first phase of the fieldwork (29 July – 1 Aug. 2022)

Data sources of field studies include;

- Structured interviews (survey) with directly and indirectly PAPs including residents of the affected houses
- Structured interviews (survey) with representatives (mukhtars) of PASs.
- Structured interviews (survey) with owners of the affected businesses,
- Semi-structured interviews with representatives of local institutions and organizations,
- Non-structured key informant interviews (KII) with PAPs representing different socio-economic impact categories including vulnerable groups.

An additional Woman Focus Group Discussion (FGD) was added to the field plan as a small number of women were reached under HLS.

In this context, questionnaires were prepared for RAP. The target groups and the contents of the questionnaires are presented in the table below.

Table 4-1 Contents and target groups of RAP consultations

Data Collection Tool	Target group	Content
Community Level Survey (CLS)	Mukhtars of the PASs	<ul style="list-style-type: none"> • Information sharing about affected lands including common properties and people • Population • Seasonal labour • Livelihood • Opinions about the project impacts
Household Level Survey (HLS)	-Land (parcel) based directly affected PAPs including residents of the affected houses and formal/informal users of public lands and common properties -Indirectly PAPs who live in PASs	<ul style="list-style-type: none"> • Affected private lands • Affected fixed assets • Affected public land and common property • Household demographic and socio-economic characteristics • Land ownership, agriculture and livestock
Affected Business Interview (ABI) ⁸	Owners of affected business	<ul style="list-style-type: none"> • General legal and economic information about businesses • Issues / plans relating to relocation of the workplace • Information about workers • Effects without relocation
Key Informant Interviews (KII) with	-PAPs who have different livelihood sources	Depending on the impact topic; it is not structured.

⁸ Since there is no relocation, the affected businesses were workplaces where family members worked, and temporary workers were employed in some periods, no interviews were made with the workers. However, workers are among the vulnerable groups of this RAP and are considered under the LRP.

Data Collection Tool	Target group	Content
directly and indirectly PAPs	-Special situations in terms of socio-economic effects (such as workers, fishermen, beekeepers, greenhouse keepers), -Users/beneficiaries of the affected public lands and common properties, -Vulnerable people (elderly, disabled, women, etc.)	
Institutional and Organizational Interviews (IOI)	Representatives of local institutional and organisational stakeholders	Depending on the role of the institution; it is not structured.
Woman Focus Group Discussion (FGD)	Women from affected communities	Unstructured

The sampling technique used to determine the characteristics of the households affected by the project's land acquisition is based on the following numbers.

Although a common sample was determined for social studies, it was tried to reach everyone affected by the land acquisition in the settlements visited. Information about a total of 466 parcels was obtained from people who are "on the lands". Estimated numbers (lands, assets, PAPs, etc.) for the entire project area were determined with the identifications of survey with 286 households representing 466 parcels. The first stage of the expropriation process to identify the entitled PAPs in the entire project area is the Census and Asset inventory work under the responsibility of AYGM. AYGM has project experience in accordance with IFC standards. For this reason, it can reach users of all affected lands (including informal and vulnerable ones) with field studies and ÇKS, Beekeeping Livestock Registration System etc. records.

Table 4-2 Key numbers on land acquisition impact

No. of affected parcels	No. of private parcels	No. of shareholders	No. of public parcels	No. of affected settlements	No. of houses on the affected lands	No. of businesses on the affected lands
2338	2095	8889 ⁹	243	36	19	9

Since a mixed research design that uses quantitative and qualitative methods together was preferred in the field study, the number of quantitative samples (HLS) was determined based on a 95% confidence level and a 6% margin of error. Accordingly, the targeted number of quantitative questionnaires was 260 (286 questionnaires were applied), while the targeted number of qualitative interviews was approximately 50 (50 KIIs were carried out). The number of PAPs currently consulted is 336. See the Table 4-3 for targeted and achieved sample numbers.

As is common, the representation rate increases when the sample is determined based on the number of affected parcels. The number of parcels in which at least one entitled person was reached is 466. This number is higher than a sample based on a 95% confidence interval and a 4% margin of error.

Sampling strategies of RAP field study components and planned-achieved sample sizes are summarized in Table 4-3 below in terms of data collection tools.

Randomly selected names from the expropriation list have been reached for HLS application. However, since the population of the settlements was low, it was tried to reach everyone on the affected lands. Most owners/shareholders do not live in PASs. Since the survey was carried out face

⁹ Repeated names of individuals and institutions are counted unique.

to face, it was possible to reach the landowners and users who are in close contact with the lands and whose livelihood depends on the lands.

To reach people whose livelihoods may be affected due to public lands and common properties affected by the land acquisition of the project, the following groups were discussed with the muhtars and these groups were also included in the HLS application:

- Persons engaged in agricultural activities on public lands and affected by the project
- People whose pasture activities may be affected by the project
- People whose forestry activity may be affected by the project
- Persons whose fishing activity may be affected by the project

Table 4-3 Sampling Strategies According to Data Collection Tools and Sample Sizes

Data Collection Tool	Target group	Strategy	Target number of consultations	Achieved numbers
Community Level Survey (CLS)	All mukhtars of the PASs affected by the land acquisition of the Railway	Full census	36 PASs	36 ¹⁰
	Mukhtars of the PASs - Affected by camp sites - Affected by Quarries - Affected by Batching Plans - Affected by Dump sites	Census		
Household Level Survey (HLS)	-Owners/ shareholders and owner users of the affected lands -Only users of the affected private lands -Formal/informal users of affected public lands	Randomly and purposeful sampling	260 samples for 8889 population (shareholders) with 95% confidence level and 6% margin of error. See the formula below: $\text{Sample size} = \frac{z^2 \times p(1-p)}{e^2} \div \left(1 + \frac{z^2 \times p(1-p)}{e^2 N} \right)$	286 HLS 466 parcels 1119+ PAPs ¹¹
	Owners and users of the affected houses	Full census	Number of houses on affected lands: 19	18
Qualitative Key Informant Interviews (KII)	-PAPs who have different livelihood sources -Special situations in terms of socio-economic effects (such as workers, fishermen, beekeepers, greenhouse keepers), -Residents of the PASs which have high difference between summer and winter populations,	Purposefully selected sampling	Approximate 50 qualitative consultations	50

¹⁰ Muhtar of Yazlak was interviewed, but the headman did not answer the survey questions.

¹¹ Number of household members who live in 286 household

Data Collection Tool	Target group	Strategy	Target number of consultations	Achieved numbers
	-Remarkable households in terms of ecosystem services, -Users/ beneficiaries of the affected public lands and common properties, -Vulnerable people (elderly, disabled, women)			
Affected Business Interview (ABI) ¹²	Owner of the affected business (to be relocated or only affected a part of the facility)	Full census	4 ¹³ (No relocation requirement)	3
Institutional and Organizational Interviews (IOI)	Representatives of national and local institutional and organisational stakeholders	Purposefully selected sampling	Selected institutions and organisations according to needs.	7

In summary, the numbers related to the impact categories determined according to the expropriation list and the RAP implementation are given in the table below.

¹² Since there is no relocation, the affected businesses were workplaces where family members worked, and temporary workers were employed in some periods, no interviews were made with the workers. However, workers are among the vulnerable groups of this RAP and are considered under the LRP.

¹³ A business owner has been visited twice. During the first visit, he refused to talk. He could not be reached on the second visit. However, the workplace facility does not require relocation. The building is not in the expropriation corridor.

Table 4-4 Identification and RAP Field Study Summary

Province	District	Population (TurkStat)	No. of affected settlements	Settlement	No. of affected parcels	Private lands	Public lands	Pasture lands	Forest	House	Commercial structure	Planned Social Field Study Consultations				
												CLS	HLS	KII	ABI	
YOZGAT	YERKÖY	34.888	7	YAMUKLAR	42	40	2	0	0	0	0	1	7	2	0	
				CAKCAK	29	11	18	16	1	3	0	1	5	4	0	
				ESKİYERKÖY	23	11	12	4	0	0	0	1	3	0	0	
				KAHYA	9	6	3	3	1	0	0	1	0	0	0	
				KARASMANOĞLU	35	30	5	5	0	0	0	1	5	3	0	
				YÜZÜNCÜ YIL	142	120	22	0	0	0	0	1	10	6	0	
				DELİCE	44	39	5	4	0	0	0	1	5	0	0	
	ŞEFAATLİ	14.351	11	HAMZALI	56	54	2	0	0	0	0	0	1	7	3	0
				KUZAYCA	148	81	67	0	0	0	0	1	3	2	0	
				AKÇAKOYUNLU	71	71	0	0	0	0	0	1	5	0	0	
				ALİFAKILI	19	19	0	0	0	0	0	1	3	0	0	
				BAŞKÖY	42	33	9	3	0	2	0	1	4	2	0	
				CAFERLİ	10	10	0	0	0	0	0	1	2	0	0	
				CANKILI	9	9	0	0	0	0	0	1	5	0	0	
				ÇAYDOĞAN	22	21	1	0	0	0	0	1	2	0	0	
				DEDELİ	40	40	0	0	0	0	0	1	6	0	0	
				KAZLIUŞAĞI	127	127	0	0	0	0	0	1	11	0	0	
				TAHIROĞLU	113	108	5	0	0	0	0	1	13	1	0	

Province	District	Population (TurkStat)	No. of affected settlements	Settlement	No. of affected parcels	Private lands	Public lands	Pasture lands	Forest	House	Commercial structure	Planned Social Field Study Consultations			
												CLS	HLS	KII	ABI
	YENİFAKILI	5.396	4	YİĞİTLER	109	109	0	0	0	0	0	1	16	1 FGD	0
				FEHİMLİ	90	73	17	6	0	0	0	1	13	2	0
				MEHMETAKİFERSOY	83	80	3	1	0	0	1	1	15	1	1
				YAZLAK	120	111	9	0	0	3	1	1 ¹⁴	16	4	1
	BOĞAZLIYAN	33.817	1	ÖZLER-FETİH	13	9	4	2	0	0	0	1	2	0	0
NEVŞEHİR	KOZAKLI	13.044	2	KANLICA	111	107	4	0	0	0	0	1	15	3	0
				KARASENİR	100	97	3	0	0	0	0	1	17	1	0
KAYSERİ	KOCASINAN	404.780	11	BOĞAZKÖPRÜ	73	63	10	0	0	0	0	1	8	5	0
				BEYDEĞİRMENİ	35	28	7	0	0	0	0	1	5	0	0
				DÜVER	140	136	4	1	0	2	0	1	20	3	0
				ELMALI	66	66	0	0	0	0	0	1	8	1	0
				HİMMETDEDE	73	71	2	0	0	0	0	1	10	4	0
				KALKANCIK	51	51	0	0	0	0	0	1	0	0	0
				KARAKİMSE	9	9	0	0	0	0	0	1	1	0	0
				MAHZEMİN	41	36	5	0	0	0	0	1	6	0	0
				MOLU ¹⁵	8	6	2	2	0	0	1	1	2	0	1
				OYMAAĞAÇ	58	55	3	0	0	0	0	1	9	1	0

¹⁴ He was interviewed, but the headman did not answer the survey questions.

¹⁵ Only easement

Province	District	Population (TurkStat)	No. of affected settlements	Settlement	No. of affected parcels	Private lands	Public lands	Pasturelands	Forest	House	Commercial structure	Planned Social Field Study Consultations			
												CLS	HLS	KII	ABI
				YEMLIHA	177	158	19	1	0	0	0	1	27	1	0
TOTAL			36	TOTAL	2338	2095	243	2095	243	19	93	36	286	50	3

Limitations

Age, gender, employment and education status, and vulnerability category information about the household members was obtained with the HLS application. However, since the household representatives did not want to give the names of the household members, other characteristics of the household members were asked without asking for names.

Women did not want to answer HLS questions due to the high number of the questions parcel-based and related to agricultural activities. Therefore, household-based data were obtained predominantly from male household representatives (97.2%). Therefore, KIIs with women and an FGD were conducted to increase female representation in the RAP.

Although the restrictions are not in force, the Covid-19 conditions continue. For this reason, it was tried to make the interviews mostly in open areas. The weather conditions were suitable for this; face covers were used when necessary.

CHAPTER 5. AFFECTED SETTLEMENTS, HOUSEHOLDS, LANDS, ASSETS, LIVELIHOODS AND IMPACT ASSESSMENT

5.1 Project Affected Settlements (PASs)

The land need of the Project affects 3 provinces, 6 districts and 36 settlements. Detailed baseline information on the populations of the affected settlements is provided in the ESIA. This information is based on official Turkstat data. However, these data do not provide sufficient information about the population and the number of households actually residing in the settlements. For this reason, the information received from the mukhtars with CLSs is presented below.

Table 5-1 Populations of the PASs

Province	District	Settlement	App. number of permanent residents	Permanent population	App. number of temporary/seasonal households	Temporary/seasonal population
YOZGAT	YERKÖY	YAMUKLAR	60	250	65	300
YOZGAT	YERKÖY	CAKCAK	13	50	20	75
YOZGAT	YERKÖY	KARAOŞMANOĞLU	12	5	32	15
YOZGAT	YERKÖY	YÜZÜNCÜ YIL	2000	8000	unknown	unknown
YOZGAT	YERKÖY	DELİCE	40	120	50	150
YOZGAT	ŞEFAATLİ	BAŞKÖY	50	100	85	200
YOZGAT	ŞEFAATLİ	DEDELİ	50	200	50	200
YOZGAT	ŞEFAATLİ	KAZLIUŞAĞI	35	175	4	15
YOZGAT	ŞEFAATLİ	TAHİROĞLU	45	250	20	80
YOZGAT	ŞEFAATLİ	HAMZALI	25	70	30	90
YOZGAT	ŞEFAATLİ	KUZAYCA	250	654	400	2500
YOZGAT	YENİFAKILI	YİĞİTLER	145	227	200	300
YOZGAT	YENİFAKILI	FEHİMLİ	230	720	40	150
YOZGAT	ŞEFAATLİ	MEHMETAKİFERSOY	600	unknown	100	unknown
YOZGAT	YENİFAKILI	YAZLAK	unknown	unknown	unknown	unknown
NEVŞEHİR	KOZAKLI	KANLICA	150	250	250	450
NEVŞEHİR	KOZAKLI	KARASENİR	300	500	700	5000
KAYSERİ	KOCASINAN	BOĞAZKÖPRÜ	60	125	60	125
KAYSERİ	KOCASINAN	BEYDEĞİRMENİ	20	100	unknown	unknown
KAYSERİ	KOCASINAN	DÜVER	120	560	200	1000
KAYSERİ	KOCASINAN	ELMALI	22	80	40	160
KAYSERİ	KOCASINAN	HİMMETDEDE	500	1000	750	3000
KAYSERİ	KOCASINAN	MAHZEMİN	700	2000	700	2500
KAYSERİ	KOCASINAN	OYMAAĞAÇ	120	600	20	80
KAYSERİ	KOCASINAN	YEMLİHA	980	5000	1200	8000
YOZGAT	YERKÖY	ESKİYERKÖY	10	30	unknown	unknown
YOZGAT	YERKÖY	KAHYA	30	100	unknown	unknown
YOZGAT	ŞEFAATLİ	AKÇAKOYUNLU	25	110	5	unknown
YOZGAT	ŞEFAATLİ	CAFERLİ	35	110	20	80

Province	District	Settlement	App. number of permanent residents	Permanent population	App. number of temporary/seasonal households	Temporary/seasonal population
YOZGAT	ŞEFAATLİ	CANKILI	25	110	35	230
YOZGAT	ŞEFAATLİ	ÇAYDOĞAN	25	110	35	300
KAYSERİ	KOCASINAN	KALKANCIK	100	300	50	200
KAYSERİ	KOCASINAN	KARAKİMSE	50	200	60	300
KAYSERİ	KOCASINAN	MOLU	40	400	100	400
YOZGAT	ŞEFAATLİ	ALİFAKILI	50	35	150	2
YOZGAT	BOĞAZLIYAN	ÖZLER-FETİH	260	5000	600	3

Source: CLS, 2022

According to the CLS data, in about 50% of the settlements, the population has decreased in the last five years (See Figure 5-1).

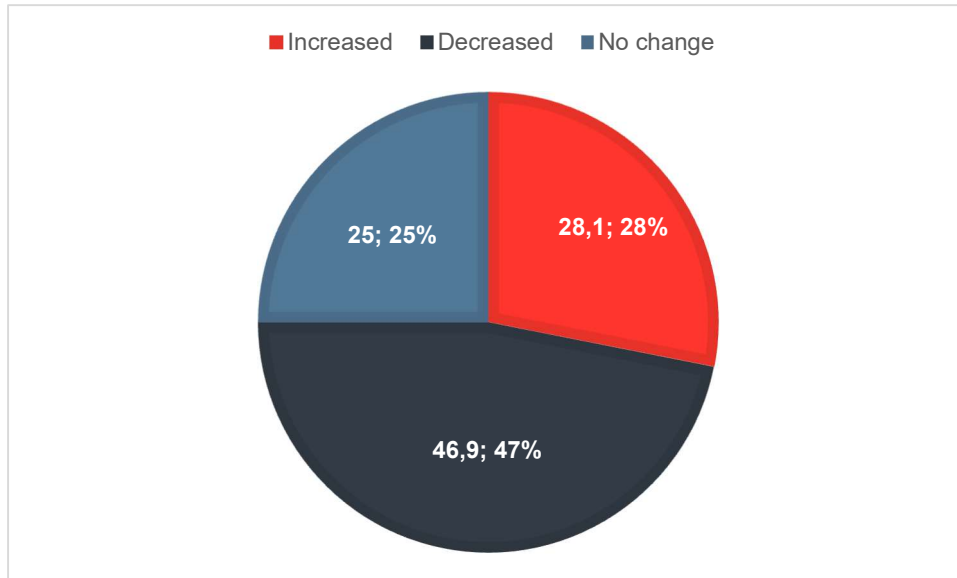


Figure 5-1 Population changes in the last five years (CLS, 2022)

Considering the sectors which the livelihoods of the local people are distributed, it is noteworthy that agriculture and livestock are the dominant sectors (See Figure 5-2).

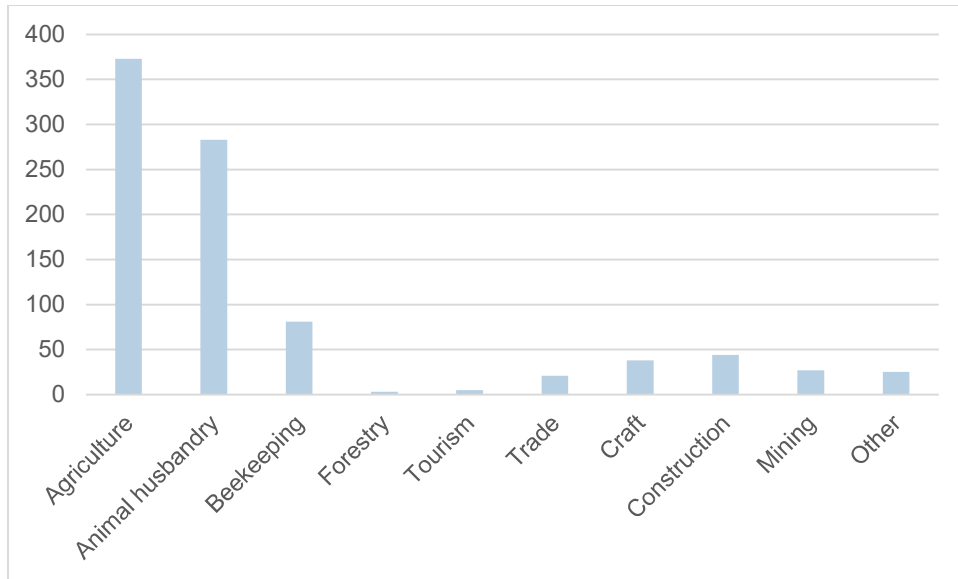


Figure 5-2 Sectoral distribution of livelihoods in PASs (CLS, 2022)

For more baseline information on the socio-economic conditions of PASs, see ESIA.

5.2 Project Affected Households (PAHs)

Households in the vicinity of the Project area is a potential project affected households (PAHs). However, within the scope of the RAP, especially the households affected by the land acquisition of the Project are addressed. Owners, users and beneficiaries of the lands used for the Project are defined as direct-PAHs (directly affected by land acquisition of the Project), indirectly affected communities that live and/or work in PASs are called indirect-PAPs in this RAP.

More than 1119 people live in the surveyed households. Of these, 48% are female and 52% are male (See Figure 5-3).

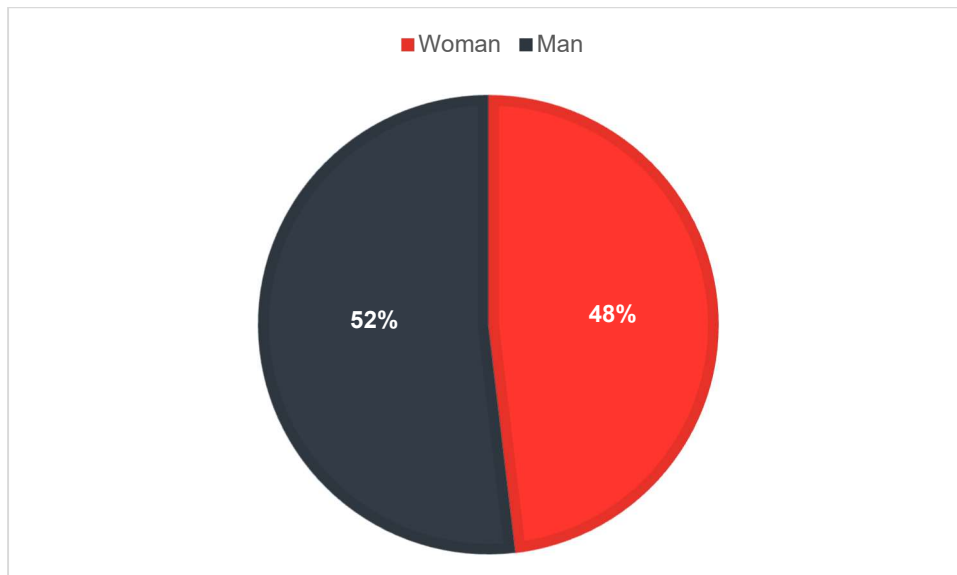


Figure 5-3 Distribution of household members by gender

The distribution of household members according to ages is presented in Table 5-2 below.

Table 5-2 Age distribution of household members

Age group		No. of members of PAHs	Percent
Valid	25 and below	346	31.54
	26-35	107	9.75
	36-45	130	11.85
	46-55	164	14.95
	56-65	187	17.05
	66-75	109	9.94
	75+	54	4.92
	Total	1097	100.00
Missing	No answer	22	
Grand Total		1119	

Source: HLS, 2022

The education level of PAH members is predominantly at the primary or secondary education level. The proportion of uneducated adults is just over 5% (See Table 5-3).

Table 5-3 Distribution of household members by educational level

Level		No. of PAH members	Percent
Valid	A child who has not yet completed a level of education	165	15.11
	Uneducated adult	59	5.40
	Primary or secondary school graduate	513	46.98
	High school graduate	261	23.90
	Graduated from a University	94	8.61
	Total	1092	100.0
Missing	No answer	27	
Grand Total		1119	

Source: HLS, 2022

The distribution of household members in terms of working status is given in Table 5-4. By the household representatives, 30.27% of the household members were defined as housewives and 29.4% as farmers.

Table 5-4 Distribution of household members by working conditions

Type		Frequency	Percent
Valid	Paid	107	9.64
	Self-employed	26	2.34
	Farmer	329	29.64
	Housewife	336	30.27
	Unemployed	62	5.59
	Student, child	250	22.52
	Total	1110	100.00
Missing	No answer	9	

Grand Total	1119	
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Source: HLS, 2022

The main and 3 auxiliary livelihood sources of PAHs (the activities from which they earn the most income) are presented in the table below. A total of 651 responses were received from 286 households regarding main and auxiliary livelihoods. 40.6% of these responses are agriculture (crop production). The ratio of households where agriculture is among their livelihoods is 93.6%. 33.3% of the households are engaged in animal husbandry. The proportion of households with a pension as their primary or supplementary livelihood is 62.4%.

Table 5-5 Main and auxiliary livelihoods

Sources	Responses		Percent of PAHs
	No	Percent	
Agriculture (crop production)	264	40.6%	93.6%
Livestock (animal production)	94	14.4%	33.3%
Pension	176	27.0%	62.4%
Paid work, salary	56	8.6%	19.9%
Workplace and self-employment income	25	3.8%	8.9%
Social support provided by institutions and scholarships	10	1.6%	3.6%
Real estate rents	20	3.1%	7.1%
Financial income such as interest	2	0.3%	0.7%
Rents from machinery and equipment such as tractors	2	0.3%	0.7%
Other	2	0.3%	0.7%
Total Answers	651	100.0%	

Source: HLS, 2022

For more detailed baseline information on PAHs, see ESIA.

5.3 Affected Lands and Land-Based Livelihoods

HLS was conducted to determine the impacts on lands, fixed assets on the lands and livelihoods related to the lands. Owners and/or users of 466 of the 2338 parcels affected by the project were included in the household survey. In other words, the 286 HLS questionnaires conducted during the RAP field study represent a total of 466 parcels. The distribution of the number of parcels affected by the project and the number of parcels in which at least one right holder (owner, user, etc.) was surveyed within the scope of the RAP field study by provinces is as presented in Figure 5-4 and Figure 5-5.

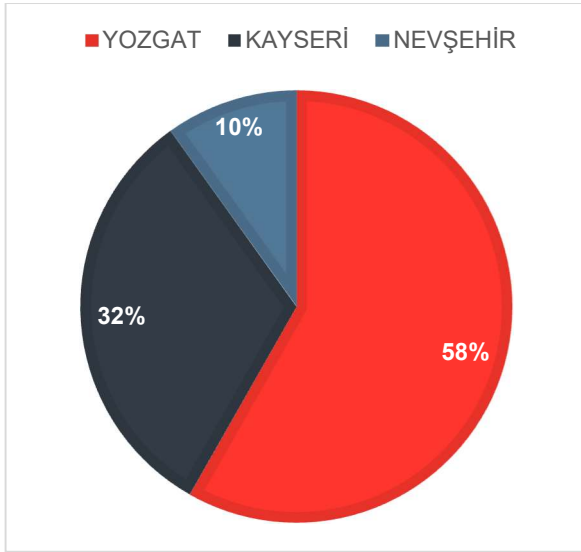


Figure 5-4 Distribution of the number of parcels affected by the project by provinces

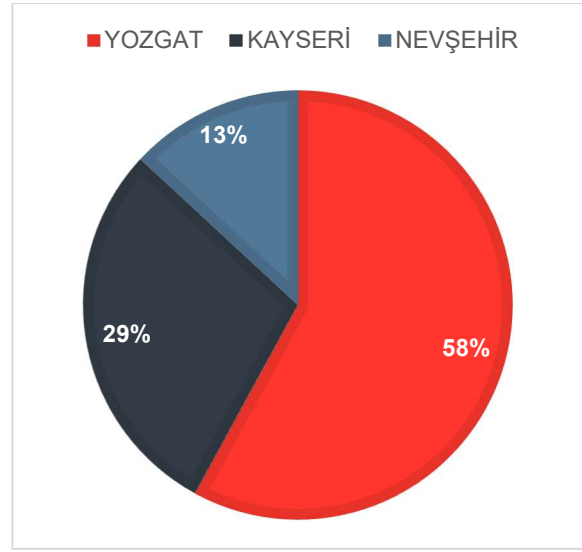


Figure 5-5 Distribution of the number of parcels reached to at least one right holder within the scope of RAP Field Study by provinces

Information about the parcels has been obtained from the landowners, heirs of the landowners, shareholders or only users. When the ownership status of the respondents is examined based on parcels, it is seen that 64.5% of the parcels were surveyed with the owner or shareholder. The number of parcels for which household surveys were conducted with only the user is 91.

Table 5-6 Ownership status of the interviewee based on parcels

Status		No. of Parcels	Percent
Valid	Number of parcels negotiated with owner or shareholder (user or not)	301	64.7
	Number of parcels contacted with the heir of one of landowners (user or not)	49	10.6
	Number of parcels interviewed with only user	91	19.6
	Number of parcels that were interviewed separately with both owner and user	9	1.9
	Number of parcels negotiated separately with more than one shareholder	12	2.6
	Number of parcels negotiated with two different heirs	3	.6
	Total	465	100.0
Missing	Pasture beneficiary only	1	
Grand Total		466	

Source: HLS, 2022

5.3.1 Agricultural Lands and Farming

When the distribution of the parcels whose right holders are reached according to the types of acquisitions within the scope of the project is examined, it is seen that the ownership right will be obtained to a large extent.

Table 5-7 Acquisition types of the parcels subject to survey

Type		No. of Parcels	Percent
Valid	Ownership right	456	98.5
	Easement	3	.6
	Ownership right and Easement	4	.9
	Total	463	100.0
Missing	No info.	3	
Grand Total		466	

Source: Title Deed Records of surveyed parcels, 2022

Thanks to the survey carried out by visiting the settlements, people who are in close relation with the lands and who carry out agricultural activities have been reached. There is agricultural activity in 97.8% of the affected lands surveyed.

Table 5-8 Agricultural activity in affected lands

Agricultural activity		No. of Parcels	Percent
Valid	Yes	449	97.8
	No	10	2.2
	Total	459	100.0
Missing	No answer	7	
Grand Total		466	

Source: HLS, 2022

60% of the cultivated land is irrigable.

Table 5-9 Affected lands by type of agricultural activity

Type		No. of Parcels	Percent
Valid	Non-irrigated	177	38.8
	Irrigated	272	59.6
	Total	449	100.0
Missing	No agricultural activity	10	
	No answer	7	
Grand Total		466	

Source: HLS, 2022

The crops planted in the affected lands are mainly barley, wheat, fodder crops, legumes, sunflower, sugar beet, maize, and fruit, vegetable, and nut varieties. Provinces are similar to each other in terms of products produced.

Table 5-10 Crops planted in affected lands per Provinces

Yozgat	Kayseri	Nevşehir
Wheat, barley, oats	Wheat, barley, rye	Wheat, barley
Sugar beet, corn, sunflower	Sugar beet, corn, sunflower	Sugar beet, corn, sunflower
fodder plant	Alfalfa, fodder crops	Clover

chickpeas, lentils Vegetable, fruit, nut	Chickpeas Zucchini, eggplant Vegetable, fruit, nut	Lentils, beans Pumpkin
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Source: HLS, 2022

More than one lands of some households are affected by the project. These are generally farmers who carry out agricultural activities in very large areas. The share of expropriated areas in the total land assets will be mentioned later.

Table 5-11 Number of affected parcels per household

No. of parcels		No. of household	Percent
Valid	1	169	61.2
	2-3	85	30.8
	4-6	13	4.7
	7+	10	3.6
	Total	276	100.0
Missing	No answer	9	
	Pasture	1	
Grand total		286	

Source: HLS, 2022

Even if they think the project will have positive impacts on the region, 82.5% of HLS respondents think they will be adversely impacted by the project's land acquisition.

Table 5-12 State of thinking that they will be adversely affected by the project due to using of their lands

Negative impact expectation		No. of household	Percent
Valid	Yes	227	82.5
	No	38	13.8
	No idea	10	3.6
	Total	275	100.0
Missing	No answer	12	
Grand total		287	

Source: HLS, 2022

PAH representatives were asked for their opinions on the type of impact on the lands and were given multiple response options. A total of 716 responses regarding the impact of the project on the lands were received from 227 household representatives expecting negative impacts. Land loss in 92.1% of households and division of land in 58.5% of households are two of the sources of problems. The rate of those who think that their products may be affected by dust is 57.6%. The percentage of households that expect an impact on access and irrigation to lands that are not directly affected by the project's land acquisition is 34.9%.

Table 5-13 Project impacts on lands

Impact	Responses		Percent of PAHs
	No	Percent	
Negative impact on agricultural activity due to loss of land	211	29.5	92.1

Problems with access to agricultural areas and irrigation as their lands are divided, additional costs	134	18.7	58.5
Difficulty in irrigation of other lands because of damage to the irrigation system	80	11.2	34.9
Depreciation of the land	125	17.5	54.6
Crop damaged by the dust that will arise due to the construction	132	18.4	57.6
The shape of the remaining piece may not be suitable for agricultural activity	20	2.8	8.8
Other	14	1.9	5.8
Total	716	100.0	

Source: HLS, 2022

Other impacts cited by respondents include:

- Crops can be crushed,
- Structures and assets on the land may be damaged.

When the negative impact of the project on livelihoods is mentioned, the agricultural sector stands out. To determine the impact of the project on agricultural activity, it is necessary to examine the impact of land acquisition on the total land holdings of households. More detailed questions were asked about agricultural activity under the HLS. Since the survey was carried out face to face, it was possible to reach the landowners and users who are in close contact with the lands. 95.5% of the households have their own land.

Table 5-14 Having agricultural lands

Having lands		No.	Percent
Valid	Yes	274	97.2
	No	8	2.8
	Total	282	100.0
Missing	No answer	4	
Grand total		286	

Source: HLS, 2022

The sizes of the lands owned are distributed as follows.

Table 5-15 Sizes of land owned by households

Land size		No	Percent
Valid	Less than 5 decares	5	1.76
	Between 5-10 decares	16	5.63
	Between 11-20 decares	21	7.39
	Between 21-30 decares	22	7.75
	Between 31-40 decares	12	4.22
	Between 41-60 decares	26	9.15
	Between 70-95 decares	25	8.80
	Between 100-150 decares	39	17.25
	Between 160-200 decares	29	10.21

	Between 210-300 decares	31	10.91
	Between 310-600 decares	21	7.39
	Between 610-1000 decares	10	3.52
	More than 1000 decares	17	5.98
	Total	274	100.0
Missing	No agricultural land owned	8	
	No answer	4	
Grand total		286	

Source: HLS, 2022

The lands owned are mostly agricultural (Figure 5-6).

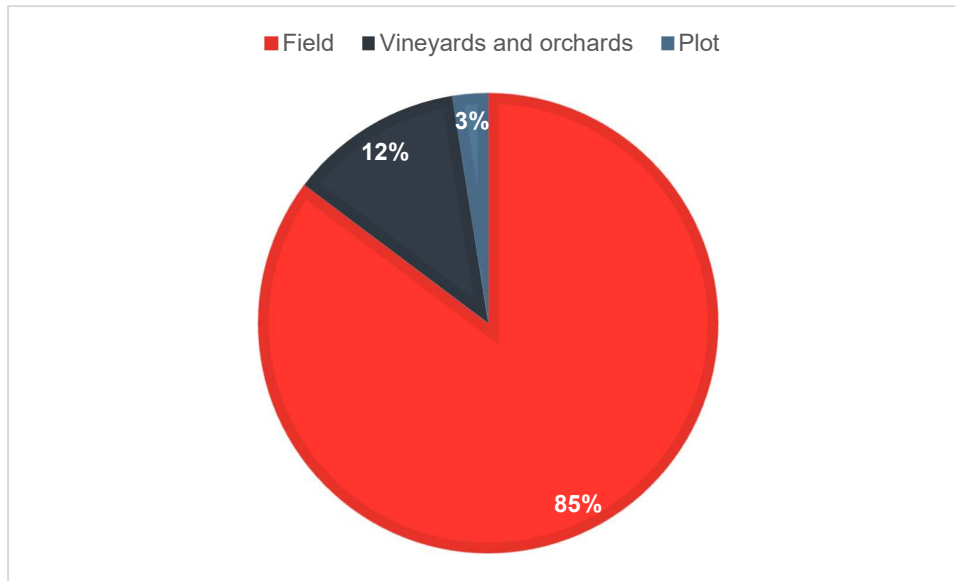


Figure 5-6 Types of lands owned by households (HLS, 2022)

While 84.6% of the sample households carry out agricultural activities on all the lands they own, 12.9% are engaged in agriculture in some of them (Table 5-16).

Table 5-16 Agricultural activity on owned lands

Agricultural activity on owned lands		No.	Percent
Valid	Yes, in all	231	84.6
	Yes, in some	37	13.6
	No agricultural activities on their own land	5	1.8
	Total	273	100.0
Missing	No agricultural land owned	8	
	No answer	5	
Grand total		286	

Source: HLS, 2022

41.9% of the sample households also carry out agricultural activities on lands belonging to others (renting / crop sharing). The total size of these lands is 17,278 declares.

Table 5-17 Agricultural activity on land owned by someone else

Agricultural activity on land owned by someone else		No.	Percent
Valid	Yes	117	41.9
	No	162	58.1
	Total	279	100.0
Missing	No answer	7	
Grand total		286	

Source: HLS, 2022

In addition to the owned and rented lands, 14% of the households in the sample also carry out agricultural activities on public lands. Their total size is close to 4 decares. When all agricultural resources are considered together, the total land size used by the sample households for this purpose is approximately 82,000 decares, while the average size is 294 decares. These data show that agricultural activities are carried out on large lands. The distribution of the households according to the size of the land on which agricultural activities are carried out is presented in Table 5-18.

Table 5-18 Total size of the land on which agricultural activities are carried out

Land size		No	Percent
Valid	Less than 5 decares	4	1.45
	Between 5-10 decares	8	2.90
	Between 11-20 decares	19	6.88
	Between 21-30 decares	14	5.07
	Between 31-40 decares	11	3.98
	Between 41-60 decares	22	7.97
	Between 61-99 decares	20	7.25
	Between 100-155 decares	47	17.03
	Between 160-200 decares	30	10.87
	Between 210-300 decares	40	14.49
	Between 310-600 decares	38	13.77
	Between 610-1000 decares	12	4.35
	More than 1000 decares	11	3.98
	Total	276	100
Missing	No answer or agricultural activity	10	
Grand total		286	

Source: HLS, 2022

Approximately 42% of the lands where agricultural activities are carried out are irrigable land (See Figure 5-7).

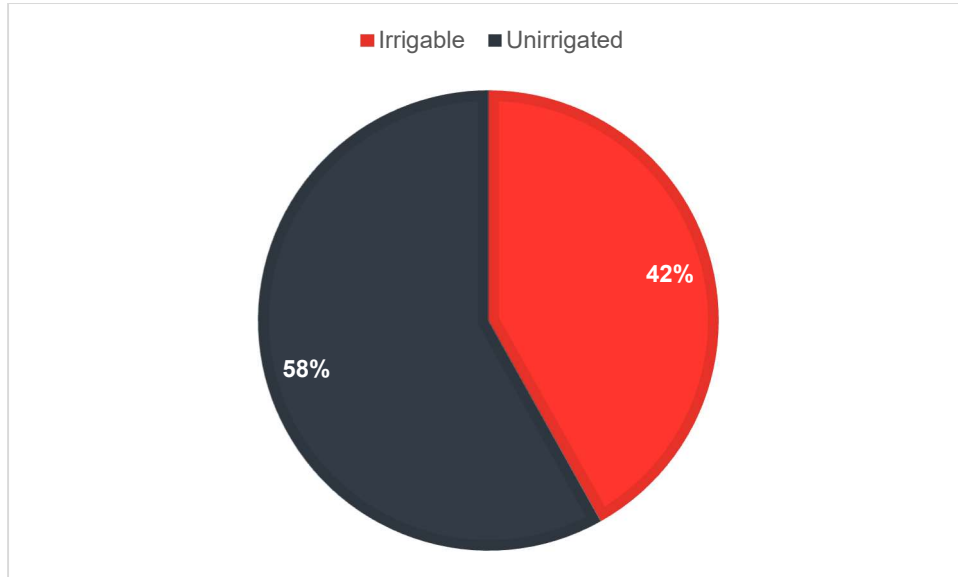


Figure 5-7 Irrigation status of cultivated lands

85.5% of the sample households are members of an agricultural registration system.

The products planted in the lands and sold are listed below. Accordingly, 96.3% of the sample households produce and sell wheat and 78.1% barley. Sugar beet, sunflower and chickpea are other products produced mostly by households for commercial purposes (Table 5-19).

Table 5-19 Products produced for commercial purposes in households

Products	Responses		Percent of PAHs
	No	Percent	
Wheat	260	25.7%	96.3%
Melon watermelon	9	0.9%	3.3%
Barley	211	20.9%	78.1%
Walnuts, almonds	5	0.5%	1.9%
Chickpeas	53	5.2%	19.6%
Rice	1	0.1%	0.4%
Tomato cucumber	19	1.9%	7.0%
Green lentils	40	4.0%	14.8%
Beans, broad beans	14	1.4%	5.2%
Sunflower	101	10.0%	37.4%
Vegetable	23	2.3%	8.5%
Sweetcorn	39	3.9%	14.4%
Forage crops	64	6.3%	23.7%
Pumpkin seeds	10	1.0%	3.7%
Potatoes, Onions	11	1.1%	4.1%
Sugar beet	132	13.1%	48.9%
Grape	12	1.2%	4.4%

Cherry	5	0.5%	1.9%
Other	2	0.2%	0.7%
Total	1011	100.0%	

Source: HLS, 2022

The most significant adverse impact of the project on agricultural activity is the high ratio of expropriated agricultural lands to the total land assets of households. The common approach is that an impact of more than 20% on total land holdings will significantly affect livelihoods. Therefore, in this project, households with more than 20% impact on total agricultural land assets were considered vulnerable.

Table 5-20 Expropriation rates on total land assets

Expropriation rate on total land assets		No	Percent
Valid	under 1%	46	21.90
	Between 1% - 5%	84	40.00
	Between 5% - 10%	35	16.67
	Between 10% - 20%	26	12.38
	More than 20%	19	9.05
	Total	210	100
Missing	No agricultural activity	10	
	Only pastureland impact	1	
	Total land asset unknown	65	
Grand total		286	

Source: HLS and Title Deed Records, 2022

14% of the sample households carry out agricultural activities on public lands. 9 out of 39 people engaged in agricultural activities in public lands stated that the public land where they carry out agricultural activities will be affected by the project. In other words, the rate of PAPs whose agricultural activities on the public land are affected is 3%.

Table 5-21 Using public lands for agricultural purpose

Using public lands		No.	Percent
Valid	Yes, we use public lands, and they will be affected by the project	30	11.0
	Yes, we use public lands, but they will not be affected by the project	9	3.0
	No	240	86.0
	Total	279	100.0
Missing	No answer	7	
Grand total		286	

Source: HLS, 2022

81.5% of the respondents think that they will lose their agricultural income due to the HSR Project.

Table 5-22 Expecting loss of agricultural income due to the project

Income loss expectation	No.	Percent
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Valid	Yes	225	81.5
	No	28	10.1
	Unknown	23	8.3
	Total	276	100.0
Missing	No answer	10	
Grand total		286	

Source: HLS, 2022

5.3.2 Common Properties and Beneficiary

5.3.2.1 Pasturelands and Animal Husbandry

According to the expropriation list, the pastures of 12 settlements are affected by the land acquisition of the project.

Table 5-23 Settlements whose pastures are affected by land acquisition

No	Settlement	Plot	Parcel	Title Deed size (m2)	Type	Ownership type
1	DÜVER	115	69	143,270.5	Pasture	Common property
2	MOLU	106	8	224,745.2	Pasture	Common property
3	YEMLİHA	9844	1	132,984.3	Pasture	Common property
4	ÖZLER-FETİH	131	1	126,100	Pasture	Common property
5	FEHİMLİ	240	3	304,807.7	Pasture	Common property
6	MEHMETAKİFERSOY	584	4	252,008.6	Pasture	Common property
7	CAKCAK	158	72	3,000	Pasture	Common property
8	ESKİYERKÖY	-	315	895,513.2	Pasture	Common property
9	KAHYA	115	26	76,301.58	Pasture	Common property
10	KARAOŞMANOĞLU	-	640	2,442,190	Pasture	Common property
11	YAMUKLAR	335	20	824,42.74	Pasture	Common property
12	DELİCE	-	651	233,541.5	Pasture	Common property

Source: Expropriation List, 2022

More detailed information was provided about the households and animals using the pastures. 35.2% of the sample households are engaged in animal husbandry.

Table 5-24 Households engaged in animal husbandry

Animal husbandry		No.	Percent
Valid	Yes	96	35.2
	No	177	64.8
	Total	273	100.0
Missing	No answer	13	
Grand total		286	

Source: HLS, 2022

The distribution of the households engaged with animal husbandry by the number of cattle they own is presented in the table below. The total population of cattle in settlements with pasture effect is 1200 (CLS).

Table 5-25 Number of cattle in the households

No. of cattle		No.	Percent
Valid	1-5 animals	12	16.22
	6-10 animals	16	21.62
	11-20 animals	14	18.92
	21-40 animals	16	21.62
	41-90 animals	7	9.46
	100-200 animals	9	12.16
	Total	74	100.0
Missing	No activity	177	
	No answer or cattle	35	
Grand total		286	

Source: HLS, 2022

While 73% of the cattle-owning households sell animals, 64% sell animal products. Households also use animal products for household consumption.

Table 5-26 Sales of cattle and animal products

	Do you sell cattle?	N	%	Do you sell animal products?	N	%
Valid	Yes	55	73.3	Yes	48	64.0
	No	20	26.7	No	27	36.0
	Total	75	100.0	Total	75	100.0
Missing	No activity	177		No activity	177	
	No answer or cattle	34		No answer or cattle	34	
Grand total		286		Grand total	286	

Source: HLS, 2022

The distribution of the households engaged with animal husbandry according to the number of sheep and goats is given below. The total number of sheep and goats in settlements with pasture effect is approximately 3000 (CLS).

Table 5-27 Number of small cattle in the households

No. of cattle		No.	Percent
Valid	5-15 animals	5	14.28
	20-50 animals	6	17.14
	60-90 animals	3	8.57
	100-150 animals	6	17.14
	160-200 animals	7	20.00
	250-300 animals	3	8.57

	400-500	5	14.28
	Total	35	100.0
Missing	No activity	177	
	No answer or small cattle	74	
Grand total		286	

Source: HLS, 2022

While 82.9% of the households with small cattle are selling animals, 22.9% of them are selling animal products. Households also use animal products for household consumption.

Table 5-28 Sales of small cattle and animal products

	Do you sell cattle?	N	%	Do you sell animal products?	No	%
Valid	Yes	29	82.9	Yes	8	22.9
	No	6	17.1	No	27	77.1
	Total	35	100.0	Total	35	100.0
Missing	No activity	177		No activity	177	
	No answer or small cattle	74		No answer or small cattle	74	
Grand total		286		Grand total	286	

Source: HLS, 2022

The household representatives were asked about their preferred three animals (cattle/small cattle) feeding methods and 183 responses were received from 96 households engaged in animal husbandry. Accordingly, while the rate of grazing of animals in the pasture is 23.5%, the rate of feeding with forage in the barn is 47.5%. While 44.8% of the households use pastures, 90.6% of them feed their animals with forage in the barn.

Table 5-29 Animal feeding preferences of households

Type	Responses		Percent of PAHs
	No	%	
Village pasture	44	24.00	45.80%
Our own land	29	15.80	30.20%
On someone else's land	14	7.70	14.60%
On public land	9	4.90	9.40%
With animal feed in the barn	87	47.50	90.60%
Total	183	100.00	

Source: HLS, 2022

The representatives of the households that feed their animals with forage at certain times of the year were asked how many months they used this method. While 3 PAPs stated that they do not feed their animals with forage, the rate of those who use forage throughout the year was measured as 52.1%.

Table 5-30 Months when animals are fed with feed

Period		No.	Percent
Valid	Never	3	3.1
	3-4 months	6	6.2

	5-6 months	26	27.2
	7-10 months	11	11.4
	12 months	50	52.1
	Total	96	100
Missing	No activity	177	
	No answer	13	
Grand total		286	

Source: HLS, 2022

Representatives of the households engaged in animal husbandry were asked about their expectations of the pasturelands being affected by the project. 69.1% of the respondents think that the project may harm the pasturelands.

Table 5-31 Expecting adverse impact on used pastures

Expecting impact on used pastures		No.	Percent
Valid	Yes	38	69.1
	No	10	18.2
	Unknown	7	12.7
	Total	55	100.0
Missing	No animal husbandry activity	177	
	No pasture use or answer	54	
Grand total		287	

Source: HLS, 2022

As mentioned before, even though village pastures are not directly subject to land acquisition, 67.7% of the sample think that they may experience a loss of income in livestock activities due to barriers to passage or the impact of forage crops on lands because of the project.

Table 5-32 Expectation of decrease in livestock income due to the project

Expectation of decrease in livestock income		No.	Percent
Valid	Yes	65	67.7
	No	24	25.0
	Unknown	7	7.3
	Total	96	100.0
Missing	No animal husbandry activity	177	
	No answer	13	
Total		286	

Source: HLS, 2022

When the reasons for the impact expectation were asked, a total of 117 responses were received from 96 household representatives (multiple response options). 88.9% of households are concerned about an increase in feed costs. For the strategy for addressing these concerns, see CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY.

Table 5-33 Reasons for loss of income in livestock

Answers	Responses	Percent of PAHs
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	N	Percent	
We'll have to go further to graze our animals	34	29.10%	54.00%
Our feed costs could increase to feed our animals	56	47.90%	88.90%
Our animal watering costs could increase	13	11.10%	20.60%
New shepherd expense	6	5.10%	9.50%
Other	8	6.80%	12.70%
Total	117	100.00%	

Source: HLS, 2022

Other reasons considered for the concern of loss of income in animal production were as follows:

- Our barn will also be expropriated (2)
- Our barn is next to the affected parcel (1)
- Trough locations and paths may change (1)
- We are concerned about past project experiences (2)
- The farmland where I graze animals is affected, pasture access is already restricted (1)
- The lands where we produce feed are affected (2)
- If low expropriation cost is paid, we will be adversely affected (1)

5.3.2.2 Beneficiaries of Forestlands and Natural Resources

Two forests belonging to the Treasury are affected by the land acquisition of the project.

Table 5-34 Affected forestlands

Province	District	Settlement	Plot	Parcel	Ownership
YOZGAT	YERKÖY	CAKCAK	104	58	TREASURY
YOZGAT	YERKÖY	KAHYA	123	1	TREASURY

Source: Expropriation List, 2022

2.1% of the households in the sample benefit from forests. The types of forest benefiting are providing firewood, and collecting (medicinal) plants and mushrooms. These activities are carried out for household consumption.

Table 5-35 Benefiting from forestlands

Benefiting from forestlands		No.	Percent
Valid	Yes	6	2.1
	No	275	97.9
	Total	281	100.0
Missing	No answer	5	
Grand total		286	

Source: HLS, 2022

It has been investigated whether there are families affected by the project because the lands owned or used by them are not affected by the land acquisition but benefit from the forests. The headmen of Tahiroğlu and Kahya villages said that there are households that benefit from the forest, but they do not know whether they will be affected by the land acquisition. Forests in the Tahiroğlu settlement are not affected by the project when there is a forest impact in Kahya. The number of households benefiting from the forest in Kahya is 25. Passages will be provided.

5.3.2.3 Rivers and Fishing

Land acquisition can also have an impact on fishing activity by blocking access to rivers. Headmen were interviewed to identify the potential households to be affected. Two mukhtars declare that they are close to the rivers. However, the mukhtars in question asked, “Could access to this river be blocked by the project?” and “Are there any households in which fishing has a place in their livelihoods?” answered “no” to the questions.

Table 5-36 Impacts on fishing activity

Province	District	Settlement	Is there a river nearby to fish?	Name of the river	Could access to this river be blocked by the project?	Are there any households which fishing has a place in their livelihoods?
KAYSERİ	KOCASİNA N	YEMLİHA	Yes	Kızılırmak	No	No
YOZGAT	YERKÖY	YÜZÜNCÜ YIL	Yes	Delice	No	No

Source: CLS, 2022

5.3.2.4 Beekeeping

Four households engaged in beekeeping were identified in the sample. While one of them sells bees/hives, three of them sell honey. Household representatives do not expect any impact of the project's land acquisition on beekeeping activity.

Table 5-37 Beekeeping activity

Selling honey	N	%	Selling bees/hives	N	%
Yes	3	75.0	Yes	1	25.0
No	1	25.0	No	3	75.0
Total	4	100.0			100.0

Source: HLS, 2022

Open-ended questions were asked to HLS respondents regarding the impacts of the project on agriculture and livestock activities, and interviews were conducted with PAPs (KII). Repeated responses to these interviews are listed under the following categories. The opinions of the community representatives (CLS) and local institution officials (IOI) on the impacts on livelihoods are also added to this list. The problems in the list were evaluated within the scope of RAP and necessary measures were developed. However, some PAPs may not be able to preserve their current livelihoods due to their sensitivity, livelihood patterns, ways of being affected by land acquisition, and exposure to multiple impacts. Therefore, LRP was prepared for residual effects despite the RAP strategy.

Table 5-38 Agricultural income loss categories

Problem	Info source	Land Acquisition and RAP Approach
Loss of productive, irrigable land	HLS, IOI	The lands will be evaluated according to their yield and irrigation potential (See National Valuation Methodology section)
Loss of income due to the decrease in the amount of land	HLS, CLS, IOI	To replace the expropriated lands, expropriation will be provided at full replacement cost (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).

Problem	Info source	Land Acquisition and RAP Approach
		Livelihoods will be supported under the LRP (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP)).
Problems arising from the division of agricultural lands	HLS, CLS, IOI	The depreciation caused by the division of the land is included in the National Valuation. Appropriate agricultural crossings will be provided. Deteriorated irrigation systems will be provided. More efficient use of existing lands will be supported through seminars to raise productivity.
Concerns over the cost of diesel if the crossings are far away	HLS, CLS	Requests received in stakeholder engagement activities will be evaluated. Appropriate agricultural crossings will be provided. More efficient use of existing lands will be supported through seminars to raise productivity.
Difficulties in finding new land, request for granting them public land	HLS	National legislation allows only cash compensation for this project at replacement cost.
Loss of trees and other fixed assets. Additional costs associated with transporting portable ones (such as solar panels)	HLS	Expropriation will be provided at full replacement cost within the scope of this RAP. Transport support will be provided for movable assets (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).
The shape of the remaining land is unusable or small (unviable land)	HLS	AYGM proactively includes unviable lands (small and/or misshapen) in the expropriation amount from the very beginning.
Lands between two railways or railway and highway due to multiple project impacts	HLS	The features of the remaining part are included in the valuation (See National Valuation Methodology). For the right to request the purchase of the unviable part, see Expropriation Law (No. 2942) section and CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY. Livelihoods will be supported under the LRP (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP)).
Concerns about the low expropriation price, past project experiences and the concern of not being able to buy new land with the expropriation price	HLS	To replace the expropriated lands, expropriation will be provided at full replacement cost within the scope of this RAP (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).
Decrease in land value	HLS	The depreciation of the remainder of the land will be included in the valuation (See National Valuation Methodology section).
Access difficulties during construction	HLS	Access will be provided. Temporary access barriers will be compensated (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).

Problem	Info source	Land Acquisition and RAP Approach
Damage to the products by the dust that will arise during the construction	HLS	Measures will be taken regarding the harms and damages (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).
If the passages are narrow, machines and animals cannot pass.	CLS	36 agricultural crossings will be provided with underpasses following the traditional use of the people. These passages were planned to be 4x4 m wide, but after RAP field study they are revised and decided to be between 5x7 meters according to the need for PAPs. See Appendix C for locations of agricultural underpasses.
Costs of livestock activities (shepherd, feed) will increase due to the barriers to passage during the construction period.	HLS	Access will be provided. Temporary access barriers will be compensated (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).
Vegetables will be affected by dust. Yamula eggplant, which is grown intensively in the Kocasinan district, is a special product with geographical indication. This licensed product can easily get sick by being affected by dust.	IOI, KII	Avoiding construction activities or taking precautions against dust during crop sensitive periods.
Access opportunities are needed for women to use the HSR.	FGD	See ESIA
In the past, there were difficulties receive fertilization support because of changes in land type as railway	KII	PAPs whose kind of lands have been changed as railway are considered in Vulnerable Group (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP)).
Irrigation systems will be disrupted.	KII, HLS	Deteriorated irrigation systems will be provided (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY)
Loss of trees will result in loss of income.	KII	Compensation for trees and other fixed assets is paid in accordance with international standards (See CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY).
Older individuals are engaged in small-scale farming. When the fields and gardens of these people are damaged, they have difficulty in establishing the same order again.	KII	Vulnerability Assistance will be provided to vulnerable directly-PAPs (See CHAPTER 7. VULNERABILITY ASSESSMENT and CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY)

Source: RAP&ESIA Field Study, 2022

5.1 Affected Buildings

5.1.1 Residential buildings and affected houses

(1) The expropriation list and (2) the RAP field study, including the map review, were used to identify residential buildings on the project-affected lands. According to the data obtained from all these sources, there are 19 residential buildings on 18 parcels affected by the project's land acquisition. For assessments see Table 5-39. The evaluations in the table are on the current project. However, AYGM and JV continue their revision studies to minimize the economic and physical resettlement.

Table 5-39 Impact assessment on parcels with residential building

No	Info. Source	No. of HLS	Province	Assessment	Type of dwelling	Physical resettlement	Vulnerability
1	Expropriation list	2	Kayseri Kocasinan Düver	300 m ² stone building with 10 rooms. There are add-ons added to the structure that are not included in the deed. Far from the expropriation corridor, no resettlement is required. However, some of its agricultural lands is affected.	Permanent residence	No (our of the corridor)	Dependent vulnerability: There may be a loss of integrity of life and livelihood
2	RAP Field Study	1	Kayseri Kocasinan Düver	2-storey masonry building, stable and permanent residence in the field. The route passes through the end of the parcel, away from the expropriation corridor. No resettlement requirement.	Permanent residence	No (out of the corridor)	No
3	RAP Field Study	1	Kayseri Kocasinan Düver	220 m ² 7-room concrete single-storey building. It is used during agricultural activities. Outside the expropriation corridor. No resettlement requirement.	Temporary use	No (out of the corridor)	No
4	RAP Field Study	1	Nevşehir Kocaklı Kanlıca	A small hut-like vineyard house. One storey structure. Temporary use for agricultural purposes. Far from the expropriation corridor. No resettlement requirement.	Temporary use	No (out of the corridor)	No
5	RAP Field Study	1	Nevşehir Kocaklı Kanlıca	50 m ² concrete structure with 3 rooms. Resettlement of the house was avoided. However, the area around the house is affected. The owner of the house does not want the house to be expropriated, but the avoidance measure will be applied in consultation period with him.	Permanent residence	No (avoidance measure: retaining wall)	Dependent vulnerable groups: Loss of integrity of life and livelihood
6	RAP Field Study	1	Yozgat Yenifakılı Yazlak	140 m ² concrete structure with 6 rooms. Two buildings on the land (house and barn). The barn is inside the corridor. Even if the house is outside the corridor, the deterioration of the integrity of the area will create additional costs. Although resettlement of the house is not required, damage to structures around the house can result in economic displacement. Therefore, a consultative process will be carried out.	Permanent residence	No (out of the corridor)	Dependent vulnerable groups: High loss of integrity of life and livelihood
7	Expropriation list (there are two houses and more structures on the parcel)	1	Yozgat Yenifakılı Yazlak	Some buildings on the parcel are being expropriated. A building is protected by building a retaining wall. A building that is a house stays away from the expropriation corridor. However, the integrity of the livelihood in the land is greatly damaged. It also seems difficult to move the facilities to the vacant and unaffected side of the parcel, as the railroad divides the land in the middle. There is a resettlement process that must be planned in consultation with the owner of the structures. At the same time, the house in parcel no. 439/15 belongs to them. As an extended family, they live in this area and carry out animal husbandry activities. The two houses that do not need to be resettled due to the railway are separated from each other. For details see Appendix B1: Case Study 1 . AYG and JV continue their revision studies to minimize the economic and physical resettlement. A consultative process will be carried out.	Permanent residence	First house: Yes	Dependent vulnerable groups: Physical displacement And High loss of integrity of life and livelihood
8					Permanent residence	Second house: No (out of the corridor)	
9					Permanent residence	No (designed according to the location of the house)	
10	Expropriation list	0 ¹⁶	Yozgat Yenifakılı Yazlak	Impact on the structure is avoided. This building, which is also used as a house by its owner, is also a workplace. Anatolian Night Club (Pavilion). There is an outbuilding next to the two-storey concrete building. The outbuilding is very close to the expropriation corridor. Avoidance measures will be taken.	Permanent residence	No (designed according to the location of the house)	Dependent vulnerability: There may be a loss of integrity of life and livelihood

¹⁶ On the first visit the houseowner was not available so did not want to be interviewed. The owner could not be reached on the second visit.

No	Info. Source	No. of HLS	Province	Assessment	Type of dwelling	Physical resettlement	Vulnerability
11	Expropriation list	1	Yozgat Yerköy Cakcak	5 rooms 120 m ² adobe house. It is outside the expropriation corridor. There may be a loss of integrity of life and livelihood. Reintegration is difficult for elderly PAPs. Therefore, additional vulnerability assistances will be provided.	Permanent residence	No (out of the corridor)	2 Elderly PAPs Dependent vulnerability: There may be a loss of integrity of life and livelihood
12	Expropriation list	1	Yozgat Yerköy Cakcak	150 m ² 5-room adobe house. The house and structures are far from the expropriation corridor. No resettlement is required. A couple who are elderly stay in the summertime.	Seasonal residence	No (out of the corridor)	2 elderly PAPs
13	Expropriation list	1	Yozgat Yerköy Cakcak	The house and structures are far from the expropriation corridor. No resettlement is required. The brothers who are shareholders stay in the summertime.	Seasonal residence	No (out of the corridor)	No
14	Expropriation list	1	Yozgat Şefaati Başköy	It is used by its owner for a short time during the harvest period. He lives in Ankara. There are no shareholders. There are currently 2 tents of seasonal agricultural workers on the land. The house is in the expropriation corridor. Relocation is required.	Temporary use	Yes	Dependent vulnerabilities: Seasonal agricultural workers
15	Expropriation list	1	Yozgat Şefaati Başköy	43 years old reinforced concrete house: 5 rooms. Licensed. There is a tandoor oven and a cellar in the outbuilding. There is a poultry house, water tank, and irrigation system. The owner uses the house as a permanent residence. There are no shareholders. The house is in the expropriation corridor. Relocation is required. However, AYGM and JV continue their revision studies to minimize physical and economic resettlement.	Permanent residence	Yes	Dependent vulnerabilities: Physical displacement
16	RAP Field Study	1	Kayseri Kocasinan Oymaağaç	Resettlement of large structures is avoided. However, there are small structures within the expropriation corridor. The road connection is broken. Resettlement could be required. However, AYGM and JV continue their revision studies to avoid resettlement. The process will be completed in consultation. Even if there is no physical resettlement, there will be additional costs as the integrity of life and livelihood is impaired.	Temporary use	No (Design studies continues to avoid resettlement)	Dependent vulnerable groups: Loss of integrity of life and livelihood
17	RAP Field Study	1	Kayseri Kocasinan Oymaağaç	Resettlement of large structures is avoided. However, other facilities remain within the expropriation corridor. Even if there is no physical resettlement, there will be additional costs as the integrity of life and livelihood is broken. Revision works on the route are still continuing in a way that will minimize economic and physical resettlement. Impacts will be evaluated in consultation.	Permanent residence	No (Design studies continues to avoid resettlement)	Dependent vulnerable groups: High loss of integrity of life and livelihood
18	RAP Field Study	1	Kayseri Kocasinan Düver	The building is in the expropriation corridor. Physical resettlement is required.	Permanent residence	Yes	Dependent vulnerabilities: Physical displacement
19	RAP Field Study	1	Kayseri Kocasinan Düver	The building is in the expropriation corridor. Physical resettlement is required.	Permeant residence	Yes	Dependent vulnerabilities: Physical displacement

According to the evaluations, 5 houses may need to be resettled. While one of them is used as a temporary residence, the others are used as permanent residence. Compensation strategies for physically displaced persons are presented in CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY. These are also among the vulnerable groups of the RAP and are considered under the LRP. Although the houses are not directly affected, the households that may need additional difficulties and costs due to the deterioration of the integrity of life and livelihood around the houses are also included in the vulnerable groups (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP)).

The evaluations in Table 5-39 are summarized in Table 5-40.

Table 5-40 Summary of impact assessment on affected houses

Impact	Permanent residence	Temporary use /seasonal residence
Physical resettlement	4	1
Loss of integrity (potentially)	4	1
High loss of integrity	4	0

5.1.2 Commercial buildings and affected businesses

(1) Expropriation list, (2) RAP field study including map analysis were used to identify commercial buildings located on project-affected lands. According to the data obtained from all these sources, there are a total of 10 commercial buildings in 8 parcels affected by the land acquisition of the project. Avoidance measures have been taken for all facilities within the expropriation corridor. There is no loss of business effect for the inactive structures on the affected parcels or the structures far from the expropriation corridor. However, there are cases that are active and despite the avoidance measures, the owner of the facility/business has loss of business concerns (See Table 5-41). Owners of facilities/workplaces that have the possibility or concern of loss of business were included in the HLS and ABI studies and examined in detail (See Appendix B. **Relocation Case Studies**).

Table 5-41 Affected lands with commercial buildings

No	Info. Source	Province - District	Type		Assessment	Relocation	Loss of business	Surveys	
			Title	Actual				HLS	ABI
1	Expropriation list and RAP Field Study	Yozgat – Yenifakılı Yazlak	MASONRY 2 FLOOR HOUSE, MASONRY 1 FLOOR HOUSE	2 flour Restaurant and Anatolian entertainment venue (Pavillion)	It is used both as a home and a workplace. Resettlement was avoided. Renovation and additional costs may be required. The building, which is also considered within the scope of affected residential buildings because it is also used as a house, will already be evaluated among vulnerable groups whose livelihood integration is disrupted in case of additional costs.	No (designed according to the location of the house)	No but additional costs may occur	0 ¹⁷	0 ¹⁸
2				Petrol station (inactive)				The inactive petrol station is far from the expropriation corridor.	No (out of the corridor)
3	Expropriation list	Yozgat – Yenifakılı Yazlak	MASONRY MILKING SHED AND FIELD	Livestock Facility Including Stables, Milking House, and Houses	The houses and animal pens of an agriculture and livestock business constitute a large family facility. When some of the structures in the two plots are affected, the whole living and livelihood area is affected. Since the railway splits the facility into two, there is no suitable area for the buildings to be reassembled. For more details see Appendix B1: Case Study 1 .	No ((designed according to the location of the house))	Yes	1	1
4	Expropriation list	Yozgat – Yenifakılı Yazlak							
5	Expropriation list	Yozgat – Yenifakılı Yazlak	MASONRY FLOUR FACTORY AND LAND	Inactive Flour Factory and Land	The building belonging to a bakery company is outside the corridor. The business is active but no impact is expected.	No (out of the corridor)	No	0	0
6	RAP Field Study	Yozgat – Yerköy Yüzüncüyıl	Plot	Wedding Hall	Avoidance measures were taken by constructing a retaining wall for a wedding hall. However, the owner of the business still has the concern of loss of business. For more details see Appendix B2: Case Study 2 .	No (avoidance measure: retaining wall)	Yes	1	1
7	RAP Field Study	Yozgat – Yerköy Yüzüncüyıl	Railway	Inactive facility	Inactive. No loss of business.	Yes (inactive)	No	1	0
8	Expropriation list	Yozgat - Yenifakılı Mehmet Akif	ONE STORE YOUNG ANIMAL STABLE and Other structures	Inactive facility	The building belonging to a Milk and Dairy Products business is located on the affected parcel. However, the business is not active. Resettlement was avoided with a retaining wall.	No (avoidance measure: retaining wall)	No	0	0
9	RAP Field Study	Kayseri - Kocasinan Oymaağaç	Field	Hangar	It is used as a hangar. Loss of business is prevented by compensation at full replacement payment. The parcels next to it are used as warehouses. Therefore, additional costs may occur. The use of the warehouse may not be continued.	Yes	No but additional costs may occur	1	0
10	RAP Field Study	Kayseri - Kocasinan Molu	Pen and its land	Pen and its land	Pen and its land. It is inactive. Only easement right will be established as it is a tunnel area.	No (easement)	No	0	0

¹⁷ He didn't want to be interviewed

¹⁸ The owner could not be reached

The resettlement of a building at 72+292 km in Yozgat Yenifakılı Yazlak was also avoided. As a result of this avoidance, the relevant parcel was excluded from the list.



Figure 5-8 A building on a parcel out of expropriation list in Yozgat Yenifakılı Yazlak'ta 72+292 km (no resettlement need)

In summary, according to Table 5-41, 10 commercial buildings were identified on the affected lands. The relocation of particularly active ones was avoided. The number of companies at risk of physical and economic displacement because of concerns is 2 (For details see Appendix B1: **Case Study 1** and Appendix B2: **Case Study 2**). Their status will be examined by AYGM. Revision studies are continuing to minimize the workplace relocation of AYGM and JV.

In addition, there is a vineyard that is covered under affected businesses due to the type of impact on agricultural lands, although its facilities are not affected. As a women's business producing award-winning wines, care will be taken not to be adversely affected by the project (For details see Appendix B3: **Case Study 3**).

5.2 Community facilities, utilities, and public amenities

Among the structures affected by the project's land acquisition are two communal facilities belonging to public institutions. These structures are outside the expropriation corridor or in an avoidable position. In addition, it was learned that the structures were not in active use during the RAP field study. Therefore, there is no adverse impact (See Table 5-42).

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Table 5-42 Affected parcels with community facilities, utilities, and public amenities

	Province- District	Settlement	Facility	Owner	Evaluation
1	Yozgat - Yerköy	Yüzüncüyıl	SPORTS HALL WITH GARDEN	General Directorate of Sports	The parcel, which includes a sports hall belonging to the General Directorate of Sports, is affected by the land acquisition of the project at a rate of approximately 10% and the facility is not affected. The football field, located next to the facility and away from the expropriation corridor, is used by young people. However, there is no regular use of the sports hall.
2	Yozgat - Yerköy	Yüzüncüyıl	BEYAZITOĞLU FARMLAND AND FACILITIES	Treasury	There is a facility called Beyazıtöğlü Farm on a Treasury land affected by the land acquisition. The facility is outside the expropriation corridor. According to the RAP observations and the headman's meeting, the facility is not in active use.
	Yozgat - Yerköy	Yüzüncüyıl			
	Yozgat - Yerköy	Yüzüncüyıl			
	Yozgat - Yerköy	Yüzüncüyıl			
	Yozgat - Yerköy	Yüzüncüyıl			

5.3 Affected Fixed Assets

5.3.1 Structures

When asked if there are buildings and structures on the project affected lands, 297 responses were received from 286 households. While 66.4% of the PAH representatives declared that there was no structure on their affected lands, 19 people stated that there were houses on their affected lands, and 4 people stated that there was a workplace in the affected lands. It was tried to reach all the households with houses or workplaces in the affected lands, and everyone was reached except the owner of a house and a house-business as presented the section above. 30.2% of the structures in the affected parcels are other structures such as wells, garages, water wells, which are non-residential and non-commercial. 32.5% of the households have such structures in their affected parcels.

Table 5-43 Buildings and structures on affected lands

Answers	Responses		Percent of PAHs
	N	Percent	
Yes, there is a house/dwelling	19	6.4%	6.9%
Yes, there is a commercial facility/building ¹⁹	4	1.7%	1.8%
Yes, there are non-residential and non-commercial structure(s)	90	30.2%	32.5%
No structure	184	61.7%	66.4%
Total	297	100.0%	

Source: HLS, 2022

When analysed on a parcel basis, a total of 123 fixed structures were determined in 466 parcels within the sample. Average of expropriation ratio by area of the project is 39.78%. It can be expected that approximately 49 of these structures could be within the expropriation corridor.

According to HLS application, the rate of having structures in the affected lands is 26.39%. The distribution of the structures identified in the sample according to their types is presented in Table 5-44.

Table 5-44 Non-residential and non-commercial fixed structures identified in affected lands

Structure type	No
Barn, stable, animal shelter	11
Base station	2
Pergola	2
Fence, wire fence	8
Warehouse	1
Electrical infrastructure, transformer	4
Energy transmission line, pole	3
Garage	1
solar panel	4
Retaining wall	1
heating room	1
Shack	3

¹⁹ Affected Business Interviews (ABI) were also conducted for the 3 affected businesses.

coop	5
Water well	37
Irrigation systems (above ground, underground)	39
Toilet	1
Total	123

Source: HLS, 2022

The age distribution according to the answers received from the respondents who knew the ages of the structures is as follows. The average age of the structures is 16.

Table 5-45 Ages of non-residential and non-commercial fixed structures identified in affected lands

Years	No
5 years old and newer	14
Between 6-10 years old	19
Between 11-20 years old	19
Between 21-30	7
Between 31-50	5
50+	5

Source: HLS, 2022

63.8% of the structures on the land are registered (See Table 5-46). During the Census study to be carried out by AYGM, all fixed assets in the affected lands will be counted regardless of whether they are registered, and an asset inventory will be prepared.

Table 5-46 Registration status of non-residential and non-commercial fixed structures identified in affected lands

Registered?	No	Percent
Yes	60	63.8%
No	34	36.2%
Total	94	100.0%

Source: HLS, 2022

5.3.2 Trees

It was asked whether there were trees in the parcels under the HLS. According to the information obtained from the sample, it has been determined that there are trees in 15% of the affected parcels.

Table 5-47 Parcels with trees

Tree		No. of Parcels	Percent
Valid	Yes	69	15.0
	No	392	85.0
	Total	461	100.0
Missing	Pastureland	1	
	No answer	4	
Grand Total		466	

Source: HLS, 2022

CHAPTER 6. RESETTLEMENT AND COMPENSATION STRATEGY

Involuntary Resettlement policy applies to a wide variety of project effects, and the scale of displacement associated with those effects will vary from project to project. Common types of resettlements and the issues associated with them include:

- Rural resettlement
- Urban resettlement
- Linear resettlement
- Site-specific Resettlement

Linear resettlement describes projects having linear patterns of land acquisition (highways, railways, canals, and power transmission lines). In sparsely populated rural areas, a linear project may have minimal impact on any single landholder. Compensation is characterized by a large number of small payments for the temporary loss of assets such as standing crops. If well designed, linear projects can easily avoid or minimize the demolition of permanent structures. Linear resettlements differ from site-specific resettlement because of the problems that frequently arise when resettlement actions have to be coordinated across multiple administrative jurisdictions and/or different cultural and linguistic areas.²⁰

In the implementation phase of the RAP, in cases where the entitlements in this RAP are insufficient, it is accepted as the basic principle that the people do not come to a worse socio-economic condition than their current situation due to the Project activities. They should maintain their current conditions or get them better.

Strategies that will play a role in reducing the impacts of land acquisition are as follows:

- Physical and Economic Resettlement
- Vulnerability Assistance (See CHAPTER 7. VULNERABILITY ASSESSMENT)
- Livelihood Restoration Plan (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP))
- Mitigation Measures

When the physical and economic resettlement is managed in accordance with this RAP, permanent and temporary livelihood losses are prevented. However, some PAPs/PAHs may have to cope with more devastating effects than others due to their special circumstances. These individuals have been identified as vulnerable groups. Residual effects of RAP application are eliminated with Vulnerability Assistance and LRP applications for these vulnerable groups.

²⁰ IFC Handbook for Preparing a Resettlement Action Plan

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Figure 6-1 Legs of resettlement and compensation strategy

Mitigation measures are the recommendations presented in the ESIA report regarding all the social and environmental impacts of the project. Mitigation measures also serve to reduce the negative impact of the project on livelihoods by reducing the impacts of the project on soil, water resources, flora and fauna, population, livelihoods, etc.

Cash compensation requirement:

The approach to compensation is based exclusively on cash compensation (plus other transactional, transitional and livelihood support measures), and does not include provision for land-for-land compensation. Because land is available on the open market for PAPs to purchase using their cash compensation, with no barriers for PAPs to use the open market to buy replacement land. Additionally, national legislation allows only for cash compensation for this project, and so preference has been given to applying an approach to compensation that is consistent with the national approach, rather than introducing alternative systems.

Cut-off-date:

The cut-off-date is the date when the "asset inventory observation" is made and the assets on the land are recorded.

Addendums to RAP&LRP:

If an undefined impact is encountered, RAP recommendations will be followed, and support strategies will be developed.

- PAPs who are included by revisions will be entitled to compensation and supports within the framework of the principles in this report.
- Addendum to RAP will be prepared to identify people affected by additional project components or changes in the design and identified PAPs will be entitled to compensation and measures in comply with this RAP.
- If necessary, additional work is carried out for revisions. New right holders could be identified during monitoring and evaluation activities and measures will be developed within the framework of RAP principles.

JV will prepare Addendum to RAP for Project components that are not covered by this report in case of revisions (design changes). PAHs/PAPs detected in the addendums are also eligible for entitlements in this RAP.

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Any insufficient measure to minimize the impacts or restore livelihoods that are identified during internal and/or external monitoring will be further followed for improvement in due course as necessary. In addition, any request will be addressed through the GM.

6.1 Physical Resettlement Strategy

Principles and commitments of Physical Resettlement Strategy presented below.

6.1.1 Census and asset inventory in IFC standards

National requirement is limited to census of immovable assets and legal titleholders. Census and baseline information on Project affected populations as defined by IFC PS5, including tenants, users of communal land, land holders/occupants without legal or customary title are not required. Based on past project experiences, the Project shall obtain through field studies the ÇKS, Livestock and Beekeeping Registration System records

The inventory of assets will be prepared by AYGM. The Project will identify the users, tenants and informal users of the affected parcels in all settlements and ensure compensations are paid under construction responsibility before starting the construction. Census and Baseline studies can be carried out by JV on behalf of AYGM.

6.1.2 Avoiding Physical Resettlement / Relocation

According to IFC PS 5, Land Acquisition, Restrictions on Land Use and Involuntary Resettlement, the Client shall consider feasible alternative project designs and sites to avoid or minimise land acquisition or restrictions on land use, other assets and natural resources while balancing environmental, social, and financial costs and benefits, and paying particular attention to gender impacts and impacts on vulnerable persons. Where it cannot be avoided through design, displacement shall be minimized and appropriate measures to mitigate adverse impacts on affected persons and host communities shall be carefully planned and implemented.

AYGM has gained experience in developing and managing HSR projects within the framework of international E&S standards. Therefore, efforts are made to avoid resettlement. Avoidance practices will be feasible and in consultation with PAPs. Avoidance measures are presented in Affected Building Section.

6.1.3 Entitlements and eligibilities

Cash compensations at full replacement cost

According to national legislation, structures that have depreciated from the moment of their construction will be compensated by deducting depreciation. However, to meet replacement value as required by PS5, the cost of depreciation and demolition must not be deducted from the valuation. Additional compensation for depreciation will be provided to owners as defined in Entitlement Matrix.

Cash compensation for full replacement value (payment of expropriation compensation to the beneficiary, including incomplete production and depreciation costs) will be paid from RAP-LRP Fund. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not considered, nor is the value of benefits to be derived from the Project deducted from the valuation of an affected asset. Payment of expropriation compensation to the beneficiary, including incomplete production and depreciation costs, is not provided by AYGM. The gap will be paid from the RAP-LRP Fund.

For affected houses, the difference between Turkish laws and international requirements is since 4% to 95% of the expropriation price paid for the structures (according to age) is deducted from depreciation and debris²¹. References for valuation for the buildings are announced annually by the Ministry of Environment, Urbanization and Climate Change. The decrease in the real estate value because of the aging of the buildings and the rates used in the calculation vary according to the type of buildings and the area they serve. Considering the characteristics and ages of the houses, some of which are

²¹ <https://vergidosyasi.com/2020/06/24/bina-asinma-payi-oranlari/>

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seasonal, affected by the project building material is concrete and average age is 22. Accordingly, the amortization share discount applied is 20% on average.

Replacement house rather than cash compensation

There could be PAPs who prefer a replacement house rather than cash compensation as it is difficult for them to find a similar house in the area where they reside. Potential sellers in the settlement, headman, local public institutions will be contacted to provide these people with a replacement house instead of cash compensation.

Real estate research assistance

Project will assist owners of the dwellings in purchasing residential houses available locally. Assistance to find a proper accommodation will be provided for the residents of the affected houses.

Right to use all recovered materials

Before the building collapses, households have the right to use all recovered materials, including, but not limited to, windows, doors, kitchens, bathrooms, metal parts, woods in their homes.

Moving support

Moving support will be provided in-kind during the physical resettlement of PAHs whose permanent residence is affected by the project's land acquisition.

Rent assistance

After the expropriation decision is taken, the households that will need physical resettlement and do not have another house to settle in (permanent residence) will be informed. After the expropriation fee is paid, these households will be given time to build a new house (if they want to build new house with expropriation payment), if it is not less than six months. If construction must start before this time is granted, a rent assistance will be provided in cash to the households for six months.

Negotiations for resettlement

During the expropriation process, owners and users of the residential and commercial buildings will be notified then informed through negotiations that their property will be permanently acquired and needs to be evacuated as per the construction schedule. If needed, the property owners will be assisted as per the EM.

Livelihood support and restoration opportunities

Those who are physically displaced must allocate some of their income to moving, to buy new items, etc. For this reason, livelihood supports, and restoration opportunities will be provided to physically displaced persons in line with LRP (See CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP))

Institutional cash supports

In addition, within the scope of the Social Assistance and Solidarity Encouragement Law No. 3294, AYGM and JV will be the intermediary to canalise in providing in-kind and cash support to the household.

Compensations for the houses affected by tunnels

Resettlement principles are applied for houses that are in danger of collapse due to tunnel construction.

National legislation provides compensation for land and structures that may be devalued due to the presence of an underlying tunnel. Prior to construction commencement, AYGM will identify properties most at risk of devaluation. Structures, identified as being "at-risk", owners of these structures will be provided with repair compensation under RAP.

A pre-assessment will be made by the Project and reported with evidence to identify pre-project conditions on tunnel areas within a range to enable a fair evaluation process for any damage that is claimed to happen because of tunnel construction. The GM will be part of this exercise to enable PAPs raise their concerns and requests. The Project will take the responsibility to ensure that Project standards will continue in resolution of potential impacts and complaints that may arise during operation.

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Compensation for affected business to be relocated

National legislation does not make provision for the compensation of business owners for loss of income caused by expropriation, only the loss of property and/or structures. To meet the requirements of PS5, if temporary or permanent land acquisition affects commercial structures and therefore a business activity, the affected business owner will be addressed by RAP-LRP Fund. This compensation covers additional costs such as the cost of re-establishing commercial activities elsewhere (relocation), lost net income during the re-establishment period (to a replacement commercial structure), and the costs of the transfer and reinstallation of the plant, machinery or other equipment. However, the resettlement of workplaces was avoided.

6.2 Economic Resettlement Strategy

Principles and commitments of Economic Resettlement Strategy presented below.

6.2.1 Census and asset inventory in IFC standards

National requirement is limited to census of immovable assets and legal titleholders. Census and baseline information on Project affected populations as defined by IFC PS5, including tenants, users of communal land, land holders/occupants without legal or customary title are not required. The inventory of assets will be prepared by AYGM in line with PS5 (including informal users of public lands and vulnerable direct-PAPs).

6.2.2 Avoiding Economic Resettlement

Avoiding damage to cultivated crops (waiting for the harvest)

The construction calendar will be shared with the mukhtars of the PASs by the Project, so that the farmers can harvest their crops. Waiting for the standing crops to be harvested is the priority method. When this is not possible, compensations will be provided for standing crops.

Avoiding construction activities or taking precautions against dust during crop sensitive periods

Requests received from GM will always be evaluated so that the products on the project routes are not damaged by dust. Subcontracting contracts will contain relevant commitments.

Yamula eggplant, which is grown intensively in Kocasinan district, is a special product with geographical indication. The crop planted in the fourth month yields up to the 10th month. This licensed product, which has a high added value in terms of regional economy, can easily get sick by being affected by dust. If there is a red spider attack with dust effect, the product cannot be taken. In the event of a red spider attack, the cost of herbal medicine is approximately doubled. The medicine effect lasts for about 15 days and it is not possible to take the product during this time. While it is possible to fight the dust coming from the soil of the region in this way, it may not be possible to save the product if the dust originating from the material to be transported from the quarries is affected. There are similar risks for other vegetables. For this reason, additional measures will be taken in areas that are not dust resistant. Despite this, complaints received from GM will be evaluated and crop payment will be provided for harm caused by dust.

Avoiding damage to irrigation systems

Damage to the irrigation systems in the area subject to expropriation affects the irrigation of the remaining areas. For this reason, deteriorated irrigation systems will be fixed. Irrigation systems will be repaired. Necessary measures will be taken to ensure that subcontractors do not damage irrigation systems and will be guaranteed by contracts.

6.2.3 Entitlements and eligibilities

Cash compensations at full replacement values of lands

Compensation of lands is paid in accordance with national Land Expropriation Law in cash to property owners. This payment is not a full replacement cost as it does not include the costs necessary to purchase a new real estate. But the only thing missing for compensation in the replacement value of "sole lands" expropriation carried out under national law is that it does not include the costs to buy a

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new land. Therefore, an additional payment to the expropriation payment of all acquired and non-acquired affected lands will be covered from the RAP-LRP Fund as the expense of buying a new land.

Replacement Cost related to transactions covers real estate transaction cost (2.0%) which is a defined term in “Act of Fees” and includes title deed registration fee, revolving fund when a transfer in title deed takes place. In addition, there, an additional 0.5% for any effort spent by the landowners in terms of time and activities. Landowners will be paid from RAP-LRP Fund.

Alternatively, in case the project has new land needs, the transaction costs can be added up into the unit land value to top-up replacement cost for lands that will reduce number of transactions.

Cash compensations at full replacement values of trees and other fixed assets

Compensation of trees and other fixed assets are paid in accordance with national Land Expropriation Law in cash to property owners. This payment is not a full replacement cost as it deducts certain items (depreciation, cutting costs, etc.). However, outstanding full replacement payments will be provided from the RAP-LRP Fund. Cash compensation for affected trees at full replacement value will be provided. It is expected that additional payment approximately 15% of expropriation amount collected will be made from RAP-LRP Fund for compensation at replacement cost. For affected trees, the difference between Turkish laws and international requirements is due to the deduction of 10% as “wood cutting” value from the expropriation value paid for trees. The values of tree are announced annually by the Ministry of Agriculture and Forestry. Expropriation fees paid for fixed structures also are paid by deducting depreciation and debris cost. For this reason, an additional payment is planned for the compensation of all fixed assets including trees (excluding houses), to reach the expropriation costs to replacement value as per international standards. The amount payable will be the deduction amounts specified in the valuation reports.

There are structures on affected lands and especially around houses that are affected by land acquisition. These are barn, coop, and water well, watering trough etc. The cost of these structures is paid by adding to the expropriation price. However, outstanding full replacement payments will be provided from the RAP-LRP Fund. Cash compensation for affected fixed assets at full replacement value will be provided. It is expected that additional payment amount collected will be made from RAP-LRP Fund for compensation at replacement cost. The amount payable will be the deduction amounts specified in the valuation reports.

Compensation for unregistered fixed assets

According to national laws, all assets and users/owners will be identified within the asset inventory survey. Compensation strategy has already been discussed.

If loss of income is detected or the owner has any vulnerability or the household’s livelihoods are limited, compensation of the unlicensed affected assets that are not paid will be made from the RAP-LRP Fund in case of GM application.

Cash compensation for unviable lands

If the remaining part of the land is “unviable” after partial permanent expropriation, the remaining parts may be expropriated under law by AYGM as per the “unviable lands acquisition criteria”. However, AYGM proactively includes unviable lands (small and/or misshapen) in the expropriation amount from the very beginning.

Crop payments to crop owners for standing crops

The construction calendar will be shared with the mukhtars of the PASs by AYGM, so that the farmers can harvest their crops. If there is standing crop on expropriated lands just before the construction activities and the construction cannot wait for certain reasons, the cost of the crops will be paid to the user by the Project.

Crop owner allowed harvesting their standing crops prior to Contractor’s entry into land plot. If harvest is not possible due to the urgency of construction activities, cash compensation at market value of annual crops to crop owner determined by Ministry of Agriculture and Forestry will be paid. Instead of using the previous year’s unit prices, the crop compensation rates will be updated in line with the inflation rate.

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It is important to identify the users who will experience loss of agricultural income due to land acquisition, rather than landowners. The crop payment is paid to the crop owner, not the landowner if they are different.

Providing access roads to the lands, forests and pastures

Access roads to the agricultural lands, forests and pastures will be provided according to demands of local communities. Technical and feasible measures will be explored to provide access to pastures, forests and agricultural lands, and proper passages will be provided to restore access.

Crop payment for unviable lands

Access to agricultural lands will be provided. Temporary access barriers due to construction work may cause some lands to become unviable hence crops not to be raised and/or harvested. In such cases, compensation is provided to crop owners.

If the land outside the construction area becomes unviable for agricultural activity throughout the construction period, the claim (of actual land user) received via GM for payment for standing crops on unviable lands will be evaluated by AYGM. The crop payment of the part of the land that cannot be harvested due to construction works is covered by the Project.

Crop payment for informal users

According to Census data, standing crop determination will be made by construction sub-contractors before entering the land and crop payments will be deposited to tenants, informal users of communal lands, land holders/occupants without legal or customary title from RAP-LRP Fund. Informal users can reach JV through GM for compensation for the products damaged due to the construction activities of the Project.

Compensation for harms and damages

Damages caused by construction activities to products and assets outside the construction area are compensated by sub-contractor firms. JV's subcontractor agreements will include compensation for harms and damages commitment and liability for each and every project standard that JV is committed to.

Seminars for raise productivity

The division of agricultural lands by railway creates difficulties in agricultural activities. Therefore, the Project will organize seminars for raise productivity in all PASs for more effective use of the remaining lands.

Movable asset transportation support

Support will be provided for the transfer of portable assets such as solar energy panels and base stations to another land. At the request of the owners, the movable assets in the affected land can be moved by the JV to another land in the same city.

Animal feed support

Technical and feasible measures will be explored to provide access to pastures and animal feeding areas, and proper passages will be provided to restore access. If access for animal husbandry activities cannot be provided during the construction period, land users whose main livelihood²² is dependent on livestock will be provided with feed support. This support can be provided in the form of direct provision and distribution of fodder in cooperation with cooperatives and related institutions.

If the access to pasture areas is provided through passage gaps, there is no need for compensation, if the passage to pastures is open and safe for human and animal health. However, if the partial transition is far from traditional use and it poses a danger to human and animal health, the feed support specified in the previous bullet should be provided.

²² Animal husbandry is the second most important source of livelihood among the households forming the sample.

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45% of the animal owners in the sample declared that they use pasture. In case the pasture access is disrupted due to the construction activities of the project, the roughage needs of the animals will not be met. Therefore, roughage (dry grass and wheat silage) support will be provided for the days when the passage of pasture is prevented.

Table 6-1 Cattle daily feed consumption amount²³

Weight	Milk Yield	Dry Grass	Wheat Silage	Dairy Feed
500 kg	15 kg	5	16	5,5
550 kg	15 kg	5	17	6
550 kg	20 kg	5	18	7,5
600 kg	25 kg	5	19	8,5
600 kg	30 kg	6	18	9,5
650 kg	35 kg	6	19	10,5

The amount of roughage (grass and silage) to be given to the cows is calculated as 1 kg of hay for 25 kg of live weight. Accordingly, a 550 kg cattle should consume 22 kg of roughage daily. Wheat hay kg price in 2021 is 1.10 TRY. Accordingly, the daily roughage cost of an animal is 24.2 TRY. The average daily roughage consumption for small cattle is 3.5 kg (3.85 TRY).

Vulnerability Assistance

When the members of independent vulnerable groups such as women heads of households, elderly PAPs, people with disability etc. want to reach a service related to Project directly or indirectly but have difficulty reach it due to their vulnerability, they can request assistance such as meeting with bank or notary employee, signing a document, reaching an information, transportation, access to professional, lawyer, estate agent etc. from the local units of the Project (For details see CHAPTER 7. VULNERABILITY ASSESSMENT).

Vulnerable PAPs identified in the Census study will be provided with specific information about their entitlements from RAP and LRP.

Requests are received by CLOs at site visits or through the GM and evaluated by the PIU in terms of tie of project and vulnerability.

Compensation for economically affected business

National legislation does not make provision for the compensation of business owners for loss of income caused by expropriation, only the loss of property and/or structures. To meet the requirements of PS5, if temporary or permanent land acquisition affects commercial structures and therefore a business activity, the affected business owner will be addressed by RAP-LRP Fund. Renovations due to the impact of the project and disassembly, assembly, transportation etc. costs will be provided by the Project, if necessary.

6.3 Identification Summary

Some numbers used to estimate the approximate number of entitled PAPs were identified or estimated as follows.

²³

<https://aydin.tarimorman.gov.tr/Belgeler/%C4%B0%20M%C3%BCd%C3%BCrl%C3%BC%C4%9F%C3%BC%20Bas%C4%B1%C4%B1%20Yay%C4%B1nlar/Hayvanc%C4%B1%C4%B1k/rasyon.pdf>

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Table 6-2 Identification summary²⁴

Category		Identified numbers	Estimated numbers
Affected lands			
Affected settlements (PASs)		36	36
Affected private lands		2095	2095
Owners of the affected lands		8889	8889
Users (owner of the crops) of the affected private lands		280	1500
Users (owner of the crops) of the affected public lands		9	150
Formal/informal owners of the trees on the affected lands		69	350
Number of unviable lands		20	206
Beneficiaries of the affected common properties	Pastureland	44	282
	forestland	6	25
	river	0	0
The total population of cattle in settlements with pasture effect		1200	1200
The total population of small cattle in settlements with pasture effect		3000	3000
Number of fixed assets in expropriation corridor		49	245
Number of unregistered fixed assets in expropriation corridor		18	89
Number of lands with trees		69	350
Affected houses			
Number of affected lands with residential buildings		18	18
Number of houses on affected lands		19	19
Number of households need physical resettlement	Total	5	5
	Permanent residence	4	4
	Temporary use / seasonal residence	1	1
Number of households whose integrity of life and livelihood was disrupted even though resettlement was not required		9	9
Number of parcels with residential and commercial buildings/purpose together		2	2
Affected businesses			
Affected lands with commercial buildings		8	8
Number of buildings on affected parcels		10	10
Number of businesses to be relocated		0	0
Number of businesses not to be relocated but may have additional expenses because of the project		4	4

²⁴ Estimated numbers are approximate for the preparation of the RAP-LRP fund and do not reflect the exact numbers.

6.4 Entitlements Matrix

According to the data obtained from the RAP preparation studies, there are different types of rights holders who are affected by land acquisition in different ways. The entitlement matrix (EM) offers compensation measures in the light of the above-mentioned strategic instruments in *Table 6-*.

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Table 6-3 Entitlement Matrix (EM) of RAP

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
1	Owners of the dwellings	5 dwellings to be resettled	Loss of house	<ul style="list-style-type: none"> ■ Compensation for loss of structure; Cash compensation for full replacement value (payment of expropriation compensation to the beneficiary, including incomplete production and depreciation costs). ■ Before the building collapses, households have the right to use all recovered materials, including, but not limited to, windows, doors, kitchens, bathrooms, metal parts, woods in their homes. ■ Damages that may occur in houses because of tunnel construction are repaired or resettled. ■ Livelihood supports and restoration opportunities ■ These principles will also apply if the informal owners of the houses are identified. ■ There could be PAPs who prefer a replacement house rather than cash compensation as it is difficult for them to find a similar house in the area where they reside. Potential sellers in the settlement, headman, local public institutions will be contacted to provide these people with a replacement house instead of cash compensation. 	<p>Compensation for dwellings will be paid from Expropriation Budget of AYGM. However, full replacement cost that the legal legislation does not cover will be provided from RAP-LRP Fund.</p> <p>JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.</p> <p>The PAPs who prefer a replacement house rather than cash compensation as it is difficult for them to find a similar house in the area where they reside will be assisted to find new house by JV.</p> <p>Additionally, physical displaced PAHs which loss of their permanent residence is covered by LRP.</p>
2	Residents of the affected houses	5 resident households	Physical displacement	<ul style="list-style-type: none"> ■ Moving support; Transport expenses are covered, or transportation support in-kind is given. ■ People living in dwellings will be informed three months before construction to ensure they can find another accommodation. Besides, assistance to find a proper accommodation will be provided. 	<p>After the expropriation decision is taken, the households that will need physical resettlement and do not have another house to settle in (permanent residence) will be informed. After the expropriation fee is paid, these households will be given time to build a new house (if they want to build new house with expropriation payment), provided that it is not less than</p>

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
				<ul style="list-style-type: none"> ■ Rent assistance for resident homeowners who want to build new house with the expropriation payment. ■ A member of household could be employed in the Project. ■ Livelihood supports and restoration opportunities 	<p>six months. If construction must start before this time is granted, rent assistance will be provided in cash to the households for six months.</p> <p>Moving support will be provided in-kind during the physical resettlement of PAHs whose permanent residence is affected by the project's land acquisition.</p> <p>Additionally, physical displaced PAHs which loss of their permanent residence is covered by LRP. Households will be informed about resettlement by AYGM, including LRP opportunities.</p> <p>JV is responsible for providing entitlements and PIUs will play a role in facilitating PAPs including have traditional relationship access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.</p>
3	Owners of the businesses and commercial buildings to be relocated	No commercial/industrial facility was identified to be relocated.	Loss of business	<ul style="list-style-type: none"> ■ Cash compensation at full replacement cost is paid to the owner of the building. ■ Before the building collapses, owners have the right to use all recovered materials, including but not limited to, windows, doors, kitchens, bathrooms, metal parts, woods in their structures. ■ The delivery of the materials of business owner will be supported. ■ Material support can be provided to build the building in another close area that is not affected by the Project within the scope of negotiations with the business building owner. ■ Support will be provided on legal consultancy (lawyer) costs and new expenses for necessary permits, EIA documents, etc. 	<p>Compensation for buildings will be paid from Expropriation Budget of AYGM. However, full replacement cost that the legal legislation does not cover will be provided from RAP-LRP Fund.</p> <p>The delivery of the materials and mechanics will be supported from RAP-LRP Fund.</p> <p>Support will be provided from RAP-LRP Fund to make the necessary preparations in advance so that the activity of affected business does not stop.</p> <p>JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.</p>

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
				<ul style="list-style-type: none"> ■ Avoiding activity stoppage: Support will be provided to make the necessary preparations in advance so that the activity of affected business does not stop. ■ Consultation and planning with business owners to avoid disruption of activity. ■ Preliminary preparations to be carried out during the restoration of affected facilities cause additional costs. Any additional expenses that will prevent the interruption of activity will be paid from the RAP-LRP Fund or addressed in-kind. 	RAP principles also apply to workplaces that cannot be identified within the scope of RAP but need to be relocated.
4	Owners of businesses not to be relocated but may have additional expenses	4 business owners	Additional costs of affected businesses	<ul style="list-style-type: none"> ■ The necessary time will be given to the businesses to re-establish the facilities affected by the project's land acquisition. ■ Avoiding activity stoppage: Support will be provided to make the necessary preparations in advance so that the activity of affected business does not stop. ■ Consultation and planning with business owners to avoid disruption of activity. ■ Preliminary preparations to be carried out during the restoration of affected facilities cause additional costs. Any additional expenses that will prevent the interruption of activity will be paid from the RAP-LRP Fund or addressed in-kind. 	<p>There is no business that needs relocation. This article has been added to meet future needs, if necessary.</p> <p>Collaboration will be ensured so that affected business does not stop the activity. PIU will be responsible of the collaboration and consultation with business owners.</p> <p>Support will be provided from RAP-LRP Fund to make the necessary preparations in advance so that the activity of affected business does not stop in the scope of LRP.</p> <p>JV is responsible for providing entitlements of business owners and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process. RAP principles also apply to workplaces that cannot be identified within the scope of RAP.</p>

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
5	Owners of the affected lands	8889 owners/ shareholders of 2095 private lands.	Loss of private lands	<ul style="list-style-type: none"> ■ Cash compensation at full replacement cost is paid to the right owners. ■ If the remaining part of the land is “unviable” after partial permanent expropriation, the remaining parts may be expropriated under law as per unviable land acquisition criteria.²⁵ However, AYGM proactively includes unviable lands (small and/or misshapen) in the expropriation amount from the beginning. 	<p>Compensation for lands will be paid from Expropriation Budget of AYGM. However, full replacement cost that the legal legislation does not cover will be provided from the RAP-LRP Fund.</p> <p>AYGM will take a role in informing the public about the issue and the Project will prepare GLAC and distribute it to all settlements by JV.</p> <p>In the full replacement cost, the compensation is paid, including the transaction costs necessary to purchase a new property. However, sometimes the owners do not prefer to buy land with the expropriation payment. The project supports the replacement of lost lands due to the project's goal of protecting livelihoods and ensuring sustainability. JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.</p>
6	Formal and informal users (owner of the crops) of the private and	2338 lands	Loss of crops	<ul style="list-style-type: none"> ■ Crop owner allowed to harvest their standing crops prior to Contractor's entry into the needed land. ■ Cash compensation at market value of annual crops to crop owner determined by Ministry of Agriculture and Forestry. ■ It is important to identify the users who will experience loss of agricultural income due to land acquisition, rather than landowners. 	<p>The construction calendar will be shared with the mukhtars of the PASs by AYGM, so that the farmers can harvest their crops. If there is standing crop on expropriated lands just before the construction activities, the cost of the crops will be paid to the crop owner.</p> <p>National requirement is limited to census of immovable assets and legal titleholders. Tenants, users of communal land, land holders/occupants without legal</p>

²⁵ If the remaining part of the expropriated property is not suitable for cultivation/benefit, expropriation of the remaining property must be made within thirty days after the submission of a written notice without the need to file a lawsuit in the administrative court (Expropriation Law Article 12, pr.7).

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
	public lands			<ul style="list-style-type: none"> ■ Access will be provided. Temporary access barriers due to construction work may cause crops not to be harvested. In such cases, compensation is provided to crop owners. ■ Seminars for raise productivity ■ Compensation for harms and damages: Damages caused by construction activities to products and assets outside the construction area are compensated by sub-contractor firms. 	<p>or customary title have not been identified. It is AYGM's responsibility to bring Census data in line with national standards to international standards. AYGM will identify the users, tenants and informal users of the affected parcels in the PASs under construction responsibility of AYGM.</p> <p>Access to agricultural lands will be provided. Temporary access barriers due to construction work may cause some lands to become unviable hence crops not to be raised and/or harvested. In such cases, compensation is provided to crop owners.</p> <p>The division of agricultural lands by railway creates difficulties in agricultural activities. Therefore, the Project will organize seminars for raise productivity in all PASs for more effective use of the remaining lands.</p> <p>JV's subcontractor agreements will include compensation for harms and damages commitment and liability.</p>
7	Formal/informal owners of the trees on the affected lands	App. 350 parcels	Losses of trees	<ul style="list-style-type: none"> ■ Compensation of trees and other fixed assets are paid in accordance with national Land Expropriation Law in cash to property owners. ■ Outstanding full replacement payments will be provided from the RAP-LRP Fund. Cash compensation for affected trees at full replacement value will be provided. 	<p>A special commission within Ministry of Agriculture and Forestry determines the values of the trees. These payments made by the administration are not a full replacement cost as it deducts certain items (cutting costs, etc.). It is expected that additional payment amount collected will be made from RAP-LRP Fund to make compensation at replacement cost for trees. The amount payable will be the deduction amounts specified in the valuation reports.</p> <p>JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of</p>

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
					this responsibility will be the good execution of the RAP disclosure process.
8	Formal/informal owners/users of the fixed assets on the affected lands	App. 245 affected fixed assets	Losses of fixed assets	<ul style="list-style-type: none"> ■ Compensation of fixed assets are paid in accordance with national Land Expropriation Law in cash to property owners. ■ Outstanding full replacement payments will be provided from the RAP-LRP Fund. Cash compensation for affected fixed assets at full replacement value will be provided. ■ Fixed assets that are not licensed according to national laws may not be compensated. If loss of income is detected or the owner has any vulnerabilities or the household's livelihoods are limited, compensation of the unlicensed affected structures that are not paid will be made from the RAP-LRP Fund in case of GM application. ■ Households have the right to use all of the recovered materials. ■ Support will be provided for the transfer of portable assets such as solar energy panels and base stations to another land. ■ Deteriorated irrigation systems will be fixed or construction will be assisted. 	<p>Compensation for lands in which expropriation process has begun will be paid from Expropriation Budget of AYGM. However, full replacement cost that the legal legislation does not cover will be provided from RAP-LRP Fund. It is expected that additional payment amount collected will be made from RAP-LRP Fund to compensation at replacement cost for fixed assets.</p> <p>At the request of the owners, the movable assets in the affected land can be moved by the JV to another land in the same city.</p> <p>JV will ensure that the GM is always open for those seeking access to their entitlements in this RAP during construction.</p> <p>JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.</p>
9	Beneficiaries of the affected common properties (pastureland,	17 PASs	Loss of common property areas and access	<ul style="list-style-type: none"> ■ Access to pastures will be provided ■ If access for animal husbandry activities cannot be provided during the construction period, land users whose livelihood is dependent on livestock will be provided with feed support. ■ If the access to pasture areas is provided through passage gaps; there is no need to compensate the herders if the passage to pastures is open and safe for human and animal health. However, if the partial transition is far 	<p>Technical and feasible measures will be explored to provide access to pasture areas, and proper passages will be provided to restore access after construction by JV.</p> <p>If road access could not be provided, feed support will be provided from RAP-LRP Fund. This support can be provided in the form of direct provision and distribution of fodder in cooperation with cooperatives and related institutions.</p>

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
	forestland, river)			from traditional use and it poses a danger to human and animal health, the feed support specified in the previous bullet should be provided partially.	JV will ensure that the GM is always open for those seeking access to their entitlements in this RAP during construction. JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process.
10	Affected settlements (PASs)	36 PASs	Impacts on access roads and services commonly use	<ul style="list-style-type: none"> The current infrastructure and services will be protected and regulated so as not to bring economic losses to its users. Technical and feasible measures will be explored to provide access to lands, and proper passages will be provided to restore access after construction. 	Infrastructure and roads damaged in past construction activities will be repaired by JV with instruction of AYGM. JV will ensure that the GM is always open for those seeking access to their entitlements in this RAP during construction.
11	Potential PAPs	NA	Undefined impacts	<ul style="list-style-type: none"> If an undefined impact is encountered, RAP recommendations will be followed, and support strategies will be developed. PAPs who are included by revisions will be entitled to compensation and supports within the framework of the principles in this report. Addendum to RAP will be prepared to identify people affected by additional project components and identified PAPs will be entitled to compensation and measures in comply with this RAP. 	New right holders (formal or informal) could be identified during monitoring and evaluation activities and measures will be developed within the framework of RAP principles. JV will Addendum to RAP for Project components that are not covered by this report in case of revisions (design changes). Any insufficient measure to minimize the impacts or restore livelihoods that are identified during internal/external monitoring will be further followed for improvement in due course as necessary. In addition, any request will be addressed through the GM.

No	PAP Category	RAP findings	Type of losses	Entitlements	Responsibilities
12	Independent Vulnerable PAPs	848	Being more affected by the project due to available vulnerability	<ul style="list-style-type: none"> ■ Vulnerability assistance will be provided, including various types of service support ■ Livelihood Restoration Plan (LRP) will be open for independent vulnerable direct-PAPs such as women heads of households, elderly PAPs, people with disability etc. ■ It is very important for Vulnerable PAPs to reach stakeholder engagement channels. Therefore, additional measures will be taken. ■ Local employment opportunities will be provided for unemployed and poor peasants. ■ Women: Equality in the number of men and women will be paid regard in benefiting from LRP. ■ It is very important for Women to reach stakeholder engagement channels. 	<p>Vulnerability Assistance will be provided by local office of PIU. Details are presented in CHAPTER 7. VULNERABILITY ASSESSMENT section.</p> <p>JV is responsible for providing entitlements of formal and informal PAHs and PIU will play a role in facilitating PAPs access to their entitlements. The first stage of this responsibility will be the good execution of the RAP disclosure process with measures for PAPs with independent vulnerabilities and women.</p> <p>CLT will organize activities for vulnerable groups and women have access to stakeholder engagement opportunities.</p> <p>The Project will organize the training activities respecting the equality of women and men.</p>
13	Dependent Vulnerable PAPs	1307	Being more affected by the project due to project related vulnerability	<ul style="list-style-type: none"> ■ Additional supports will be provided within the scope of LRP such as; <ul style="list-style-type: none"> — TLS — Local employment — Resource efficiency project — Agricultural project assistance — Real Property Tax support — Retrospective fertilizer and diesel support — Agricultural preparation and integrity support — Agricultural trainings — Social Security Institution (SSI) insurance support 	<p>The LRP has been prepared under this RAP. LRP supports will be covered by AYGM from the RAP-LRP fund. LRP implementation will be implemented as described in CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP) section according to the protocol to be signed between AYGM and JV.</p>

CHAPTER 7. VULNERABILITY ASSESSMENT

7.1 Vulnerable Groups

Two types of vulnerability are generally considered in such investment projects. These can be briefly called independent and dependent vulnerabilities:

- **Independent vulnerabilities:** It includes individuals who are vulnerable in all situations, regardless of the context. These vulnerabilities are related to individual's or group's race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. What distinguishes them from other people affected by the Project land acquisition is that they need to be supported when involved in expropriation processes, as they need the support of others in other daily duties/routines because of physical (disability), social (gender) or economic (poverty, landless) disadvantages. Because of these disadvantages, they may be expected to experience difficulties at some stages of land acquisition and construction (such as stakeholder engagement, access to payments, livelihood activities or access to grievance mechanism).

Independent vulnerable groups could be directly-PAP²⁶ or indirectly-PAP²⁷.

- **Dependent vulnerabilities:** Contextually, it refers to the disadvantageous positions created by the current project or investment. Dependent vulnerabilities can occur due to cumulative impacts or indirect impacts. What distinguishes them from other people affected by the Project land acquisition and construction is that they are more at risk than others due to the sequences of economic losses. In other words, they face the risk of loss of livelihood and income because of high, multiple, direct, and indirect impacts of the Project. RAP strategies alone may not be sufficient in eliminating the project effects on these groups. Therefore, they are additionally supported under the LRP.

Table 7-1 Vulnerable groups of the Project

Independent vulnerabilities	Dependent vulnerabilities
<ul style="list-style-type: none"> ■ Female head of household ■ Underage head of household ■ Seniors in need of care and social assistance ■ Disabled (Physical / Mental) ■ Unemployed (although looking for a job) ■ Widowed/divorced women ■ Homebound due to Chronic Disease ■ Illiterate adult ■ Refugee/migrant 	<ul style="list-style-type: none"> ■ Physical displaced PAHs which loss of their permanent residence ■ PAPs whose kind of lands have been changed as railway ■ Shepherds who were prevented from crossing pasture during construction ■ PAPs who lost the integrity of life and livelihood ■ Owners and users of the parcels under multiple project impact ■ Landless informal users of impacted public lands ■ PAPs whose main livelihood sources are affected by the Project more than 20% ■ PAPs whose agricultural activities in the remaining lands will suffer ■ Housing opportunities affected seasonal workers ■ Workers of the affected businesses

Due to some disadvantages in the land acquisition and construction process, there may be various problems that vulnerable people may encounter difficulty in access to payment etc. For independently vulnerable PAPs, difficulty in access to;

- stakeholder engagement activities undertaken throughout the land acquisition and construction process by virtue of some disadvantages,

²⁶ The lands owned or used by PAP are affected by land acquisition of the Project.

²⁷ Vulnerable people who live in PASs are a member of affected communities.

- grievance mechanism despite being subject to economic displacement or suffering damage or loss due to project activities,
- service to restore their order of life and livelihood,
- compensation or crop payment for their crops and assets acquired for the Project by virtue of some disadvantages in the process of the land acquisition,
- their livelihood activities in private lands, public lands and common properties (pasture and forest),
- infrastructure and social services,
- livelihood restoration activities.

7.2 Identification of Vulnerable Household Members

Within the scope of the RAP field study, vulnerabilities of all affected household members were examined, and 183 vulnerabilities were identified among the total household population of 1119 people. Some of these are mixed vulnerabilities (multiple vulnerabilities in one person) and the total number of vulnerable people is 140. While 1.4% of 1119 household members are woman heads of household, 31.4% are elderly in need of care and social assistance. For other vulnerabilities see Table 7-2.

Table 7-2 Household members vulnerabilities

Vulnerabilities	Responses		Percent of Household members
	N	Percent	
Woman head of household	2	1,1%	1,4%
Underage head of household	0	0.0%	0.0%
Seniors in need of care and social assistance	44	24,0%	31,4%
Disabled (Physical / Mental)	18	9,8%	12,9%
Unemployed (although looking for a job)	31	16,9%	22,1%
Widowed/divorced women	25	13,7%	17,9%
Homebound due to Chronic Disease	28	15,3%	20,0%
Illiterate adult	35	19,1%	25,0%
Refugee/migrant	0	0.0%	0.0%
Total	183	100,0%	130,7%

Source: HLS, 2022

According to the data obtained from 286 households representing 466 parcels, the number of vulnerabilities that can be found in a total of 2338 parcels, including public lands, pastures and forests, has been estimated as in Table 7-3.

Table 7-3 Identified vulnerabilities in affected households²⁸

Category	Identified number by sample	Estimated number of vulnerabilities in total
Independent Vulnerable Groups		
Female head of household	2	9
Underage head of household	0	0
Seniors in need of care and social assistance	44	204
Disabled (Physical / Mental)	18	83

²⁸ Estimated numbers are approximate for the preparation of the RAP-LRP budget.

Unemployed (although looking for a job)	31	144
Widowed/divorced women	25	116
Homebound due to Chronic Disease	28	130
Illiterate adult	35	162
Refugee/migrant	0	0
Total	183	848

Source: HLS, 2022

7.3 Vulnerability Assistance

PAPs defined as vulnerable group members with the land acquisition of the project are evaluated within the scope of LRP. PAPs that have an existing vulnerability independent of the project will be provided with Vulnerability Assistance under the RAP. The economic impacts on independent vulnerable groups are like other PAPs. However, due to the features that make them sensitive, they need additional effort to access information and restore their order of life and livelihood. For this reason, service and assistance supports are planned for these groups instead of cash supports. This plan was chosen as a result of stakeholder engagement processes and past similar project experiences. Independent vulnerable groups need services to manage economic assets rather than financial support.

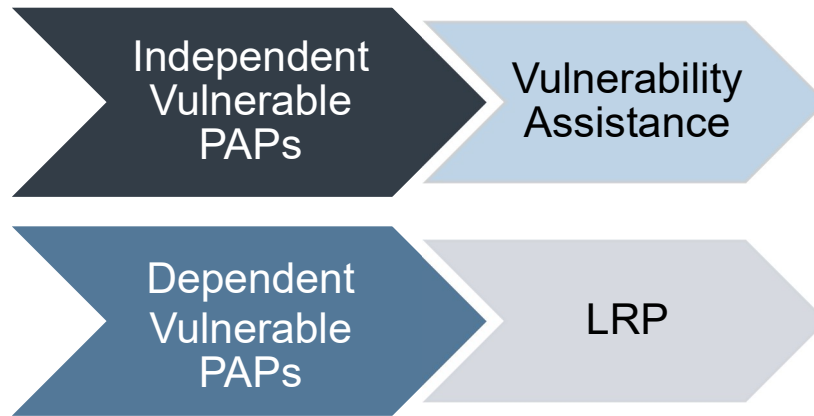


Figure 7-1 Entitlements for vulnerable PAPs

The types of assistance for each vulnerable group are presented in Table 7-4 below, but the assistance to be provided may not be limited to these. The requests of PAPs are always evaluated by the PIU and can be achieved by evaluating the relation to vulnerability and the project.

Table 7-4 Vulnerability assistances per vulnerable groups

Vulnerability category	Vulnerability Assistance
Female head of household	Safe stakeholder engagement opportunities will be provided for women. Women CLOs will hold one-on-one meetings with these groups and provide information about the entire project, including land acquisition, community health and safety, and gender aspect. Requests for assistance will be considered to achieve compensation or various supports.
Widowed/divorced women	
Underage head of household	This group was not found in surveyed households. Underage household heads identified in the Census study will be provided with specific consultancy on their legal rights and entitlements.

Vulnerability category	Vulnerability Assistance
Seniors in need of care and social assistance	<p>It is known that these groups have difficulties in accessing information, compensations, and other supports. Therefore, when they want to reach a service related to the Project directly or indirectly but has difficulty reach it due to their vulnerability; they can request assistance from the local units of the Project.</p> <p>These Vulnerability Assistances include, but are not limited to:</p> <ul style="list-style-type: none"> ■ Reaching the bank ■ Meeting with the bank ■ Bank employee home visit ■ Reaching the notary ■ Getting information from the notary ■ Notary employee home visit ■ Sending and receiving documents (cargo, fax, e-mail, etc.) ■ Signing any document at home ■ Transportation ■ Access to information and consultancy ■ Professional, lawyer, estate agent etc. providing ■ Utilization in public services ■ Engagement opportunities at home <p>Vulnerable PAPs identified in the Census study will be provided with specific information about their entitlements from RAP and LRP.</p> <p>Additional supports for vulnerable individuals (groups in the left column) whose home or surroundings, stables or livelihood resources are affected by the project may include:</p> <ul style="list-style-type: none"> ■ Renovation, gardener, architect, etc. support. ■ Support if health needs arise during the move. ■ Providing facilities to facilitate their daily life if their roads are disrupted. ■ Providing all services that serve to restore or even facilitate daily life. ■ Participation in expenses for poor households. <p>Requests are received by CLOs at site visits or through the GM and evaluated by the PIU in terms of tie of project and vulnerability.</p>
Disabled (Physical / Mental)	
Homebound due to Chronic Disease	
Unemployed (although looking for a job)	<p>Local employment opportunities will be provided for unemployed and poor peasants. Direct-PAPs who have not worked in an insured job for more than one year will be given priority in local employment.</p>
Illiterate adult	<p>Oral, face-to-face and visual engagement opportunities and translator support will be provided. Consultancy will be provided in line with their demands in accessing social services.</p>
Refugee/migrant	

CHAPTER 8. LIVELIHOOD RESTORATION PLAN (LRP)

8.1 Livelihood Restoration Strategy

The project will require acquisition of the public and private agricultural lands, forestlands and the pasturelands which will potentially result economic displacement. Therefore, this RAP includes an Economic Resettlement Strategy. However, supporting the PASs and PAHs/PAPs in terms of long-term sustainability and flexibility of livelihoods is preferred for projects that adopt international development principles. Therefore, in addition to RAP, LRP can be prepared for restoration of fragile²⁹ livelihood activities and sustainability of livelihoods of PAHs.

The economic resettlement strategy includes similar provisions for all households affected by land acquisition. However, some PAPs/PAHs/PASs may be more affected by the project than others due to various characteristics and may not be able to sustain their existing livelihoods. These receptors are defined as vulnerable groups in the Chapter below. Therefore, LRP was prepared as a subsection of RAP.

The livelihood restoration strategy of the project is to strengthen livelihoods physically, economically, and culturally and to make them resistant to impacts such as climate change and land degradation as well as the impact of the project.

The operation of the livelihood restoration system is presented in the figure below. Accordingly, PAPs/PAHs/PASs (receptors) that may have permanent effects on their livelihoods despite the project's RAP strategy are defined as vulnerable groups within the scope of the project. Additional support will be provided to these groups within the scope of LRP.

²⁹ Because of climate change, drought, political and economic changes, war, migration, change of energy pattern

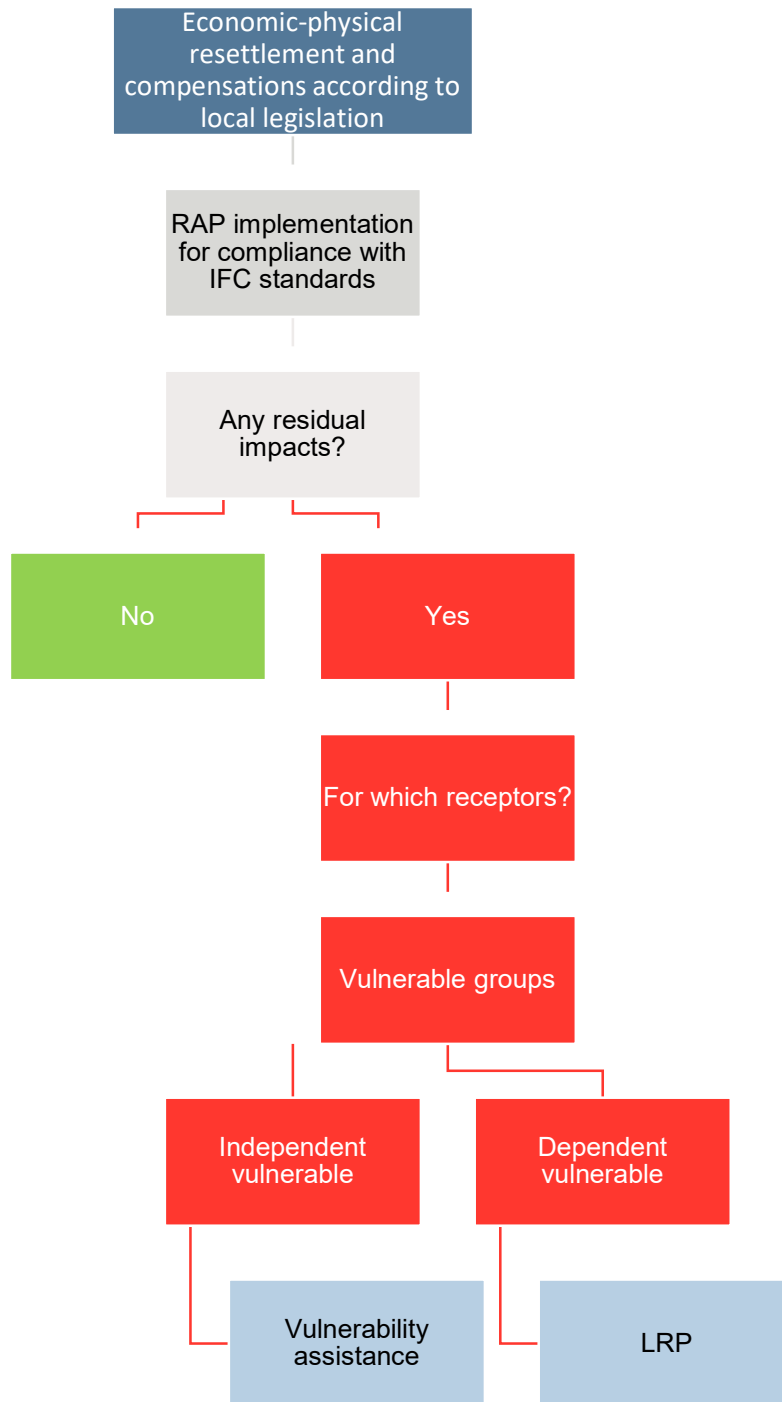


Figure 8-1 RAP LRP transaction chart

When the main and auxiliary income sources of the households affected by the project are evaluated together, it is seen that agriculture and animal husbandry occupy an important place. These are the sectors most affected by the project’s land acquisition. For this reason, a planning was made for agriculture and animal husbandry within the scope of LRP.

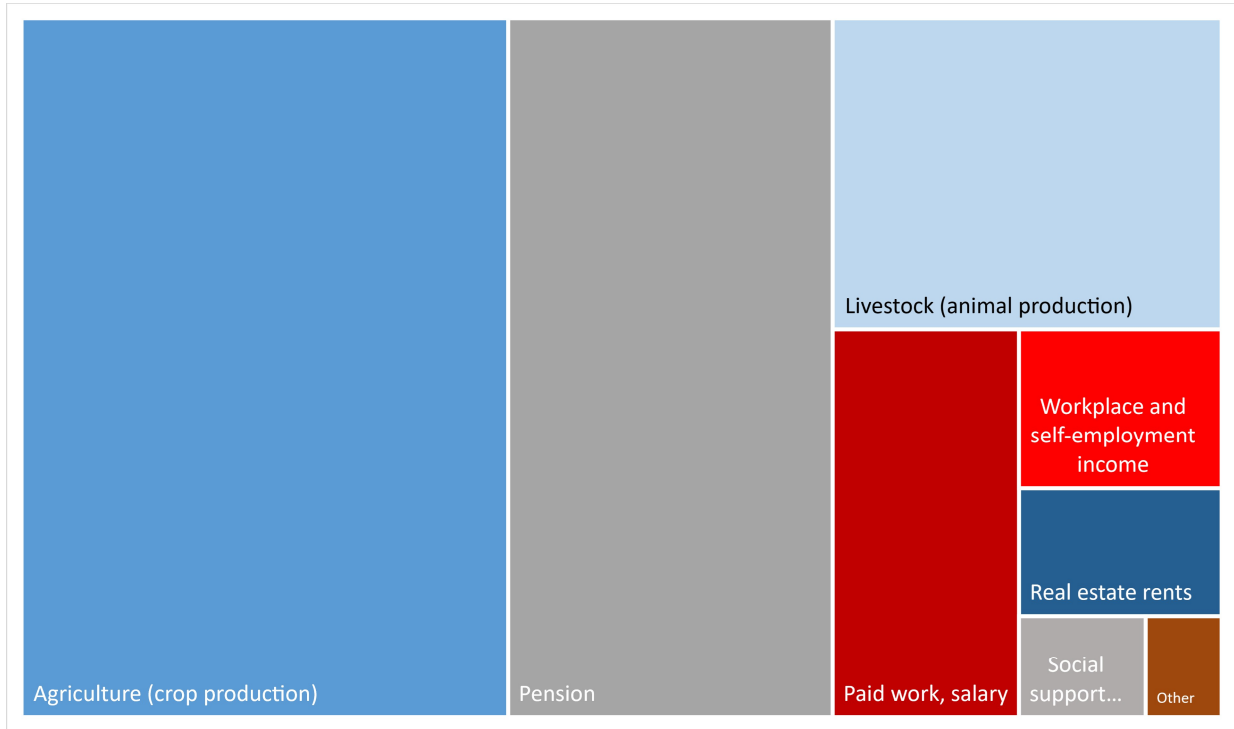


Figure 8-2 Livelihood sources of PAHs

8.2 Livelihood Restoration Instruments

The instruments of the LRP are presented below.

Transitional Livelihood Support (TLS)

TLS is provided to support the livelihoods of households during the transition period. TLS payments equals' monthly net minimum wage, will be made from RAP-LRP Fund for vulnerable PAPs.

Considering that the provinces are in the middle and lower-middle socio-economic level and 45% of Turkish salary-earners is on minimum wage, it shows that it is appropriate to take the minimum wage as a reference in the calculation of the transitional livelihood support. In Türkiye, there are two wages that can be taken as reference to ensure minimum living conditions. These are;

- Minimum wage
- Unemployment wage

The first one is 6,471.00 TRY (July 2022), while the second one is changeable. The highest unemployment benefit and the minimum wage are almost the same. As it is widely used in RAPs based on international standards prepared in Türkiye, the minimum wage, which is increased by the government every year according to the inflation rate, will be taken as reference in the transition period support of different amounts.

Local employment

Local employment is a mitigation measure offered under the ESIA. In addition, priority will be given to the employment of dependent vulnerable household members directly affected by the project's land acquisition under the LRP. In the job application forms, "Were your house and lands directly affected by the land acquisition of the project?" question will appear. For the provision of temporary or permanent employment opportunities, prioritization of local employment and physically displaced persons will be stipulated in contracts to be made with the subcontractors and JV will ensure that these people have been provided with employment opportunities in the Project.

JV will take care to employ local people during the construction works. Particular attention will be paid to the employment of directly-PAPs whose lands are affected by land acquisition of Project, including

dependent vulnerable PAPs. During M&E activities, local employment numbers will be reported as direct-PAPs and indirect-PAPs (local communities).

Resource efficiency project

Central Anatolia Development Agency (ORAN) has carried out many projects for the private sector before 2016 and for the public sector since 2017 and has been carrying out projects that support agricultural development in recent years (www.oran.org.tr). The most important projects carried out to ensure agricultural productivity and sustainability of resources is the Resource Efficiency Project for irrigation systems. Thanks to the smart meters added to the agricultural irrigation system, a great contribution has been made to the protection of resources. It has been learned that there is a shortage of water resources in project area with the formation of sinkholes (for example, between Boğazlayan and Yenifakılı Districts), and that the irrigation systems are insufficient. Research on the project in question shows that thanks to the meters, resource efficiency has increased, and water costs have not increased. AYGM will cooperate with ORAN for the Resource Efficiency Project to be realized in PASs. The costs of the meters to be used by PAPs included in the dependent vulnerable group will be covered from the RAP-LRP fund. It is expected that the sustainability of underground water resources in the soil will increase 3 times.

Agricultural and Animal Husbandry project assistance

Grant and loan application assistance will be provided for vulnerable PAPs who develop agricultural/farming projects but cannot implement these projects due to lack of resources. Project cycle specialist employed part-time within the scope of the project will contribute to the grant/loan finding and project writing processes of vulnerable PAPs.

Real Property Tax support

Some parcels may have been affected by the land acquisition of another project before. The multiple effect is a variable that is already considered in land valuation based on local legislation. However, landowners may want to sell these lands. The transaction costs required for the sale of these land and to buy a similar land will be covered from the RAP fund.

Retrospective fertilizer and diesel support

The project was previously under the responsibility of TCDD. In this period, TCDD initiated some land expropriation procedures but did not complete them. Ownership and use rights of lands still belong to owners/users. However, during these processes, some lands recorded as railway. These people could not receive fertilizer and diesel support for the part of their land to be expropriated. Additional fertilizer and diesel for the part of their lands to be expropriated will be provided to these people for two years from the RAP-LRP fund.

Agricultural preparation and integrity support

This support includes the services and expenses such as seeds, diesel, transportation, car rental required for the preparation, ploughing and planting of the land. Vulnerable households can request cash and in-kind support from the GM for their expenses arising from the project.

Agricultural trainings

The main purpose of agricultural trainings is to help the vulnerable PAPs increase the productivity of their existing lands. Enabling farmers whose lands are partially affected by the project to use their remaining land more efficiently will reduce the negative impact of the project on livelihood.

At least one agricultural training will be planned in each district according to the demands of directly-PAHs. The Activity will be announced on the Project's website and PAPs will be invited through the headmen by CLO. Priority will be given to the groups in Table 8-3. Training subjects can include, but are not limited to

- Efficient use of resources
- Productivity increasing agricultural techniques
- Sustainability practices
- Climate change
- Development of alternative agricultural activities

- Trainings to increase product diversity
- Medicinal and Aromatic Plant cultivation
- Fenni Beekeeping, Queen Bee Production etc.
- Greenhouse Growing
- Organic Egg Poultry etc.
- Alternative products
- Milking techniques
- Livestock practices

These trainings will be provided by institutions such as:

- Provincial Directorates of Agriculture and Forestry
- General Directorate of Agricultural Reform
- Regional Development Agencies
- Union of Chambers of Agriculture of Türkiye

JV will organize special training activities for PAHs by contacting the institutions above according to the demands of local communities.

Improvement of housing conditions

If the accommodation areas of seasonal agricultural workers will be affected by the project, they will be informed by the JV in advance, and they will be provided to establish shelters in the existing alternative areas. The alternative area should be sufficient in terms of toilet, drinking and utility water and electricity facilities. If advance notice is not given and seasonal workers need to be relocated during construction, transportation support will be provided by JV.

Social Security Institution (SSI) insurance support

There is no business relocation. But some workplaces could have extra costs. In case the preliminary preparation costs are high, if the workplace activity is stopped, the employer will be paid SSIs of all employees during the interruption period from the RAP-LRP Fund.

8.3 Eligibility and Entitlements

Although they are eligible under the RAP, the groups that should also be evaluated under the LRP due to their special circumstances are named as “dependent vulnerable groups”. PAP/PAH numbers estimated based on the numbers identified on a sample basis are given in the table below.

Table 8-1 Identified and estimated numbers of dependent vulnerable groups³⁰

Category	Identified numbers	Estimated numbers
Dependent Vulnerable Groups		
Physical displaced PAHs which loss of their permanent residence	4	4
PAPs whose kind of lands have been changed as railway	No data yet	NA
Shepherds who were prevented from crossing pasture during construction	0	10
PAPs who lost the integrity of life and livelihood	9	50
Owners and users of the parcels under multiple project impact	No data	100
Landless informal users of impacted public lands	0	10
PAPs whose livelihood sources are affected by the Project more than 20%	19	212

³⁰ Estimated numbers are approximate for the preparation of the RAP-LRP fund and do not reflect the exact numbers.

Category	Identified numbers	Estimated numbers
PAPs whose agricultural activities in the remaining lands will suffer	Qualitative data	500
Housing opportunities affected seasonal workers	380 in 3 PASs	380 in 3 PASs
Workers of the affected businesses	45 ³¹	45

Physical displaced PAHs which loss of their permanent residence

Compensation of the physical resettlement of 5 houses in the replacement cost according to PS5 is planned within the scope of RAP. However, building or finding a new house with the same features is a laborious process. For this reason, 4 PAHs of those 5 houses who lost their permanent residence have been also evaluated within the scope of the LRP.

PAPs whose kind of lands has been changed as railway

The project was previously under the responsibility of TCDD. In this period, TCDD initiated some land expropriation procedures but did not complete them. Ownership and use rights of lands still belong to owners/users. However, during these processes, some lands recorded as railway. These people could not receive fertilizer and diesel support for the part of their land to be expropriated. Additional fertilizer and diesel support for the part of their lands to be expropriated will be provided to these people for two years from the RAP-LRP fund at the current price. Additionally, PAPs whose kind of lands has been changed as railway will gain priority by earning additional points if they develop projects that will be supported under the LRP.

Shepherds who were prevented from crossing pasture during construction

Pasture access will be provided in all settlements. If it is not provided, compensation will be required. Temporarily blocking pasture crossings during construction may result in unemployment of shepherds. For this reason, in villages where PAPs are eligible for animal feed support, monthly TLS payments are made to the shepherds for the time they are unemployed, with the approval of the animal owner and the headman. If there are shepherds who declare that they are unemployed in the event of a temporary barrier to passage during the construction process, they will be paid TLS for the months they are unemployed with the approval of the animal owner and headman. The barriers to passage during the construction process will not last long.

PAPs who lost the integrity of livelihood

PAPs whose access to facilities around their home, workplace or land is restricted, those who have lost the integrity of their life/livelihood. Households who lost their livelihoods (garden, barn, trees) around the house even though their house is outside the expropriation corridor are a vulnerable group in terms of physical resettlement.

Owners and users of the parcels under multiple project impact

Some parcels may have been affected by the land acquisition of another project before. The multiple effects are a variable that is already considered in land valuation based on local legislation. However, landowners may want to sell these lands. The transaction costs required for the sale of the multiple impacted lands and to buy a similar land will be covered from the RAP-LRP fund. Additionally, these PAPs will gain priority by earning additional points if they develop projects that will be supported under the LRP.

Landless informal users of impacted public lands

Landless informal users of impacted public lands not identified but people hesitated to provide information about agricultural activities on public lands.

PAPs whose livelihood sources are affected by the Project more than 20%

³¹ Including family members and temporary employees (maximum)

The fact that 20% of the total land assets of the households whose livelihood is mainly dependent on agriculture is affected by the project means that their livelihoods will be affected by 20%. Since these people are paid compensation at the full replacement cost, they can buy new ones to replace the lost land. In addition, additional supports from LRP will be provided.

PAPs whose agricultural activities in the remaining lands will suffer

Some farmers will need to use the lands on both sides of the railway separately, as their land is divided. This disrupts agricultural activities. Farmers, who show that agricultural activity is divided to the right and left of the railway, will be encouraged to develop projects to increase productivity in their existing lands.

Housing opportunities affected seasonal workers

According to RAP field study findings, 29 settlements affected by the Project host seasonal workers at certain times of the year. Information on the status of seasonal agricultural workers is presented in Table 8-2 per settlement. In case the accommodation opportunities of seasonal agricultural workers in Himmetdede settlement (Kayseri Kocasinan) are affected by the project, the JV will support the finding and preparation of alternative accommodation. In Başköy and Kuzayca (Yozgat Şefaati) settlements, if the accommodation areas of seasonal workers will be affected by the project, they will be informed by the JV in advance, and they will be provided to establish shelters in the existing alternative areas. The alternative area should be sufficient in terms of toilet, drinking and utility water and electricity facilities. If advance notice is not given and seasonal workers need to be relocated during construction, transportation support will be provided by JV.

Table 8-2 Status of seasonal agricultural workers per settlement

Province	District	Settlement	Which provinces do they come from?	What months do they stay between?	How many people come to your village on average per year?	What is the proportion of women?	Proportion of children under 16?	Have the lands of seasonal agricultural workers' shelters been affected by project?	If yes, can you find the location?	If yes, was there an alternative place for accommodation?
YOZGAT	YERKÖY	YAMUKLAR	Urfa	summer months	50	No answer	No answer	no		
YOZGAT	YERKÖY	YÜZÜNCÜYIL	Urfa	summer months	1000	500	family	no		
YOZGAT	YERKÖY	DELİCE	Syria	summer months	30	15	No answer	no		
YOZGAT	ŞEFAATLİ	BAŞKÖY	Antep, Urfa	May-July/September-December	100	20	50	yes	111/9 parcel	yes
YOZGAT	ŞEFAATLİ	DEDELİ	Antep, Urfa	summer months	25	8	5	no		

Province	District	Settlement	Which provinces do they come from?	What months do they stay between?	How many people come to your village on average per year?	What is the proportion of women?	Proportion of children under 16?	Have the lands of seasonal agricultural workers' shelters been affected by project?	If yes, can you provide the location?	If yes, was there an alternative place for accommodation?
YOZGAT	ŞEFAATLİ	TAHIROĞLU	Urfa, Diyarbakır-Syria	summer months	60	30	15	no		
YOZGAT	ŞEFAATLİ	HAMZALI	East	summer/harvest	17	5	family	no		
YOZGAT	ŞEFAATLİ	KUZAYCA	Antep, Urfa, Konya, Adiyaman	April-October	200	30	100	yes	West of the village (in special administration parcels no 117/3, 0/5953, 0/6052)	yes
YOZGAT	YEĞİTLER	YİĞİTLER	Afghanistan and Syria	May-September	15	5	10	no		
YOZGAT	YEĞİTLER	FEHİMLİ	Urfa, Antep	April-October	80	40	100	no		
NEVŞEHİR	KOZAKLI	KANLICA	Antep, Urfa, Afghanistan and Syria	spring and autumn	20	4	5	no		
NEVŞEHİR	KOZAKLI	KARASINLI	Urfa-Diyarbakır	May-October	100	60	20	no		
KAYSERİ	KOZAKLI	BOĞAZKÖPRÜ	Adiyaman, Urfa,	April-July	60	35	25	no		

Province	District	Settlement	Which provinces do they come from?	What months do they stay between?	How many people come to your village on average per year?	What is the proportion of women?	Proportion of children under 16?	Have the lands of seasonal agricultural workers' shelters been affected by project?	If yes, can you find the location?	If yes, was there an alternative place for accommodation?
			Syria							
KAYSERİ	KOCAŞİNEAN	BEYDEĞİRMENİ	ADYAMAN	APRIL-OCTOBER	60	30	No answer	no		
KAYSERİ	KOCAŞİNEAN	DÜVER	URFA, ADYAMAN, MARAŞ	MAY-OCTOBER	100	20	40	no		
KAYSERİ	KOCAŞİNEAN	ELMALI	URFA, ANTEP, SURIYE	APRIL-NOVEMBER	30	15	8	no		
KAYSERİ	KOCAŞİNEAN	HİMMETDEDE	ANTEP, URFA	APRIL-OCTOBER	80	20	30	yes	Village entrance and river side (raw land plot in the expropriation list as treasure of finance)	no
KAYSERİ	KOCAŞİNEAN	MAHZEMİN	URFA	APRIL-NOVEMBER	1000	350	300	no		
KAYSERİ	KOCAŞİNEAN	OYMAAĞAÇ	URFA	MAY-SEPTEMBER	100	40	20	no		

Province	District	Settlement	Which provinces do they come from?	What months do they stay between?	How many people come to your village on average per year?	What is the proportion of women?	Proportion of children under 16?	Have the lands of seasonal agricultural workers' shelters been affected by project?	If yes, can you find the location?	If yes, was there an alternative place for accommodation?
KAYSERİ	KOCAŞİNEAN	YEMLİHA	URFA - ADANA	MAY-OCTOBER	300	100	150	no		
YOZGAT	YERKÖY	ESKİYERKÖY	Urfa, Diyarbakır	summer months	35	No answer	No answer	no		
YOZGAT	YERKÖY	KAHYA	URFA	No answer	No answer	No answer	No answer	No answer		
YOZGAT	ŞEFAATLİ	CANKILI	URFA, ANKARA	HARVEST TIME	30	15	No answer	no		
YOZGAT	ŞEFAATLİ	ÇAYDOĞAN	Urfa, Diyarbakır	MAY-JULY	35	15	No answer	no		
KAYSERİ	KOCAŞİNEAN	KALKANCIK	Urfa, Diyarbakır	APRIL-OCTOBER	100	50	10	no		
KAYSERİ	KOCAŞİNEAN	KARAKİME	URFA	MAY-JULY	100	40	No answer	no		
KAYSERİ	KOCAŞİNEAN	MOLU	Urfa, Diyarbakır	MAY JUNE	No answer	No answer	No answer	no		
YOZGAT	ŞEFAATLİ	ALİFAKILI	No answer	summer months	12	5	3	no		
YOZGAT	BOĞAZLIYAN	ÖZLER-FETHİH	No answer	summer months	120	40	20	no		

Workers of the affected businesses

Thanks to the avoidance measures of the project, no workplace relocation is required. However, the need for renovation may arise due to the impact of the project. For this reason, measures have been taken to ensure that workers are not dismissed if workplace activities are suspended.

8.4 Livelihood Restoration Programme

The use of LRP instruments identified above in line with the impact of the project and the needs of the region and the benefit of PAPs depend on a well-programmed practice. The implementation of the LRP of the project will be carried out within the framework of the following program.

Table 8-3 Livelihood Restoration Programme

No	Dependent Vulnerable PAP Category	RAP analyses	Type of LRP instrument	Implementation	Time
1	Physical displaced PAHs which loss of their permanent residence	4 household	<ul style="list-style-type: none"> ■ TLS ■ Local employment ■ Resource Efficiency Project ■ Agricultural Project Assistance ■ Agricultural trainings 	<p>This group has already been evaluated and entitled under the RAP. However, they will still have the priority to benefit from LRP supports.</p> <p>CLT officers (CLOs) will inform the PAHs about their entitlement come from RAP and LRP.</p> <p>6-month TLS will be paid from the RAP-LRP fund (only for permanent residences).</p>	Before and during construction
2	PAPs whose kind of lands have been changed as railway	No data yet	<ul style="list-style-type: none"> ■ Retrospective fertilizer and diesel support ■ Agricultural Project Assistance ■ Agricultural trainings 	<p>Owners of a group of lands that have been converted from land to railway in the past will be determined. Fertilizer and diesel support suitable for the amount of land subject to expropriation will be provided for two years from RAP-LRP fund.</p>	After expropriation
3	Shepherds who were prevented from crossing pasture during construction	App. 10 PAPs in 3 PASSES	<ul style="list-style-type: none"> ■ TLS 	<p>Access will be provided. If there are shepherds who declare that they are unemployed in the event of a temporary barrier to passage during the construction process, they will be paid TLS for the months they are unemployed with the approval of the animal owner and headman. The barriers to passage during the construction process will not last long.</p> <p>PIU evaluates the demand and provides compensation from the RAP-LRP fund.</p>	During construction
4	PAPs who lost the integrity of life and livelihood	50	<ul style="list-style-type: none"> ■ Agricultural preparation and integrity support ■ Resource efficiency project ■ Agricultural Project Assistance ■ Agricultural trainings 	<p>PAPs can apply for agricultural preparation and integrity support with EM or in person. The PIU support decision will be made by examining the application documents. Application documents are:</p> <ul style="list-style-type: none"> ■ Budget or plan of needed agricultural preparation and integrity cost, ■ Farmer registration system certificate, ■ A copy of the title deed of the land. 	After expropriation

No	Dependent Vulnerable PAP Category	RAP analyses	Type of LRP instrument	Implementation	Time
5	Owners and users of the parcels under multiple project impact	Qualitative data (App. 100)	<ul style="list-style-type: none"> ■ Real Property Tax support ■ Local employment ■ Agricultural Project Assistance ■ Agricultural trainings 	The owners of the lands that will be between the two railways will be informed about their rights by the CLOs. If the landowners want to sell their land between the two railways and buy a new land of the same size, the expenses arising from the sale and purchase will be covered from the RAP-LRP fund. PAPs will be able to receive payment by submitting the invoice showing the amount of data to the PIU.	After expropriation
6	Landless informal users of impacted public lands	10	<ul style="list-style-type: none"> ■ Agricultural preparation and integrity support ■ Local employment ■ Resource efficiency project ■ Agricultural Project Assistance ■ Agricultural trainings 	<p>There were no poor peasants who did not have land belonging to their household and who made their living by cultivating public lands. However, if such a sensitivity is encountered, the following are the steps to be taken:</p> <ul style="list-style-type: none"> ■ Informal users are allowed to harvest their crops. ■ For the products that cannot be harvested, the crop price is paid to the user. ■ Landless peasants are supported to continue their agricultural activities by renting a new land. This support includes the expenses such as seeds, diesel, car rental required for the preparation, ploughing and planting of the land. <p>PAPs can apply for agricultural preparation and integrity support with EM or in person. The PIU support decision will be made by examining the application documents. Application documents are:</p> <ul style="list-style-type: none"> ■ Budget of planned agricultural preparation and integrity cost, ■ Document showing that there is no registered land on the household members, ■ Farmer registration system certificate, ■ A copy of the title deed of the land to be planted, ■ A letter of approval from the owner of the land to cultivate. 	After expropriation
7	PAPs whose livelihood sources are affected by the Project more than 20%	212	<ul style="list-style-type: none"> ■ TLS ■ Local employment ■ Agricultural Project Assistance 	These people are paid compensation at the full replacement costs, they can buy new ones to replace the lost land. Acquisition of a new land will be supported by the expropriation cost of these PAPs. However,	After expropriation

No	Dependent Vulnerable PAP Category	RAP analyses	Type of LRP instrument	Implementation	Time
			<ul style="list-style-type: none"> Agricultural trainings 	they may need time to find new land and start using it for agricultural purposes. For this reason, payment between 3-6 months TLS (according to impact ratio) is made to those whose main livelihood depends on agriculture and lose 20% of their total land assets.	
8	PAPs whose agricultural activities in the remaining lands will suffer	500	<ul style="list-style-type: none"> Local employment Agricultural Project Assistance Agricultural trainings 	Some farmers will need to use the lands on both sides of the railway separately, as their land is divided. This disrupts agricultural activities. Farmers, who show that agricultural activity is divided to the right and left of the railway, will be encouraged to develop projects to increase productivity in their existing lands. Agricultural trainings will help them increase the productivity of their existing lands.	Before or during construction
9	Housing opportunities affected seasonal workers	380 in 3 settlements	Improvement of housing conditions	<p>The deterioration that has occurred or is likely to occur in seasonal workers' housing conditions will be eliminated. Housing areas and alternatives in 3 settlements will be evaluated by PIU.</p> <p>If seasonal workers are not currently staying in the affected area during the construction phase, there is no need for an application. However, if seasonal workers are present at that time, they will be assisted to move to an alternative location.</p> <p>In case the accommodation opportunities of seasonal agricultural workers in Himmetdede settlement (Kayseri Kocasinan) are affected by the project, the JV will support the finding and preparation of alternative accommodation. In Başköy and Kuzayca (Yozgat Şefaati) settlements, if the accommodation areas of seasonal workers will be affected by the project, they will be informed by the JV in advance, and they will be provided to establish shelters in the existing alternative areas. The alternative area should be sufficient in terms of toilet, drinking and utility water and electricity facilities. If advance notice is not given and seasonal workers need to be relocated during construction, transportation support will be provided by JV.</p>	Before and during construction

No	Dependent Vulnerable PAP Category	RAP analyses	Type of LRP instrument	Implementation	Time
10	Workers of the affected businesses	No relocation. 3 business owners have loss of business concerns	SSI insurance support	<p>Resettlement of workplaces was avoided in order not to stop commercial activities. In cases where operation is to be stopped even temporarily, AYGM and JV will make sure to protect the rights of the employees and will compensate for the income losses of the employees. If the workplace activity is stopped temporarily, the employees will be paid SSI insurances during the interruption period from the RAP-LRP Fund.</p> <p>In this way, layoffs will be prevented. SSI insurance payment will be made through the employer and payment documents will be provided by PIU.</p>	During construction

CHAPTER 9. AUXILIARY/COMPLEMENTARY INSTRUMENTS IMPLEMENTATION

9.1 Consultation and Disclosure of Information

According to IFC Performance Standards and Equator Principles, disclosure of relevant project information helps stakeholders understand the risks, impacts and opportunities of the Project. The first draft of this RAP will be disclosed and is open to stakeholder feedback. It will be finalized by updating with the feedbacks of the stakeholders. We invite all stakeholders reading this report to provide feedback on:

- Correspondence address: Central office of JV
- Project website: www.yerkoykayseriyht.com
- E-mail: info@yerkoykayseriyht.com
- Phone: 0539 9358461

Public disclosure is one of the main steps of stakeholder engagement. Verbal, written and visual sources could be used as the informing tools. The most important verbal sources are meetings, which will be organized the district centres before expropriation started. Brochures, leaflets, posters and advertisement are both written and visual tools to inform. Besides, the official website could contain different information sources.

Meetings to be held in district centres will be organized by AYGM and JV. Feedback received at the meeting and during the next 15-day suspension will be recorded by JV. According to the feedback, the RAP takes its final form.

The process steps to be followed for the disclosure and updating of the RAP by receiving feedback from the stakeholders are as follows:

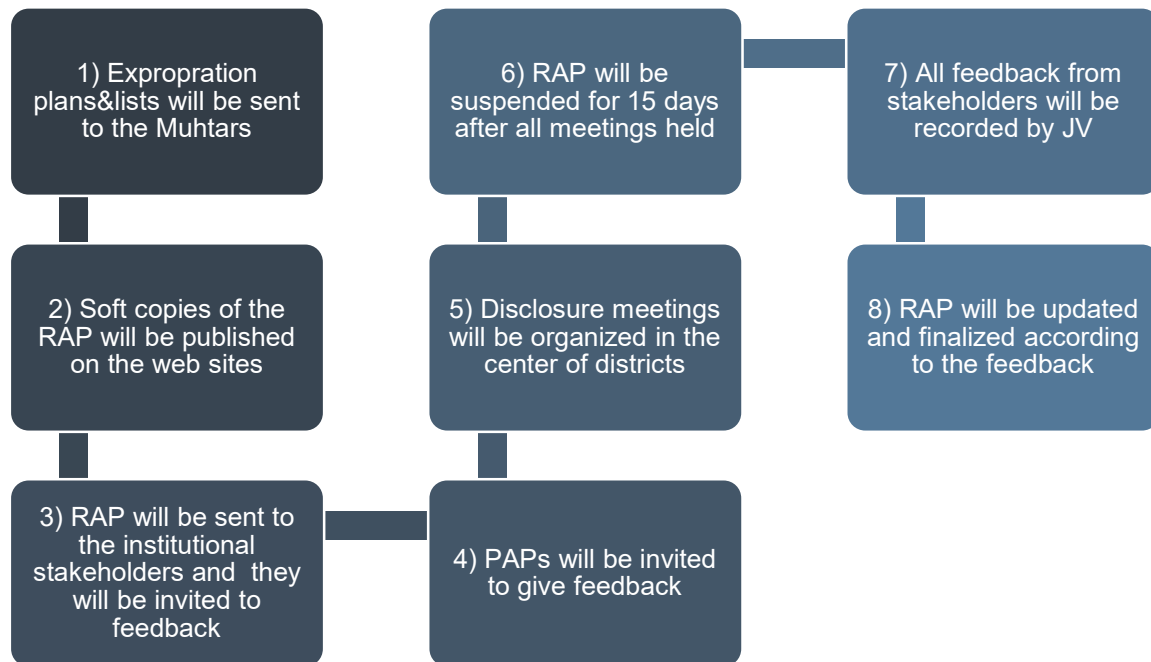


Figure 9-1 RAP disclosure steps

9.2 Grievance Mechanism (GM)

The effective functioning of the Grievance Mechanism (GM) will play an important role in minimizing the negative impacts of land used of the Project.

According to SEP GM Procedure is one of the basic elements of stakeholder engagement management. It is one of the most important tools of the stakeholder engagement management process that enables stakeholders to convey their problems, complaints and concerns about the project to the relevant units of the project, and to resolve the complaints submitted with the right methods and in a healthy communication.

The purpose of the grievance mechanism is primarily to respond the complaints and requests of stakeholders. The grievance mechanism should be open, widespread and public. In addition, an effective grievance mechanism is a written resource for stakeholder management. Therefore, it is important to encourage stakeholders to submit their requests and complaints in writing.

Effectiveness of a grievance mechanism as a management procedure depends on the existence of the following key determinants:

- Clearness and clarity: Both visual and written sources used in public disclosure should be prepared with clearest form. For instance, addresses and phone numbers of the assigned person should be in visible form for also elderly and handicapped people.
- Prevalence and accessibility: All the visual and written material such as brochures, advertisements, posters should be delivered to all settlements in the PSIA.
- Privacy and respecting to personal rights: Throughout all the activities, the collected personal data should be protected in accordance with The Personal Data Protection Law No. 6698.

The GM Procedure covers all internal and external Project stakeholders and all employees within the Firm. For more information about the procedure, please see SEP.

9.3 Guide to Land Acquisition (GLAC)

A Guide for Land Acquisition (GLAC) will be published and disseminated by the Project to PAPs to raise right awareness. See Appendix E for draft GLAC.

JV will play a role in the dissemination of GLAC in PASs. GLAC will contain the following information:

- Expropriation process,
- Rights and responsibilities of PAPs,
- Frequently Asked Questions,
- Rights from RAP and LRP,
- Grievance Mechanism,
- Contact information.

9.4 Monitoring and Evaluation

According to SEP, this plan needs to be internally audited, reviewed and updated every 6 months in the construction period. In addition, external audits every 1 year during the construction period. During the review process, in any change made in the Stakeholder Engagement Plan, the reason for this change should be documented and presented and should be up to date.

While monitoring the plan, it will be evaluated whether the plan has achieved the goals and fulfils the requirements of the relevant approval conditions. Environmental monitoring records, mitigation actions and results of audits will be considered when conducting the review. Evaluation: document the results of the plan made and identify potential improvement areas.

Within the scope of monitoring and evaluation, attention will be paid to stakeholders affected who are especially vulnerable groups by project activities.

All activities (meetings, audits, updates and improvements, complaints, training, etc.) to be carried out within the scope of SEP will be recorded in the project (except those requiring confidentiality) and stored.

The RAP indicators that will reference Monitoring and Evaluation activities are:

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- Number of physical and economically displaced households and individuals by project component and / or land acquisition type,
- The number of public information and consultations needed during the RAP implementation on land acquisition and restoration of livelihoods,
- Number of compensation payments completed,
- Amount and percentage of payments made because of court proceedings and payments made as a result of negotiations,
- Number of ongoing / open / completed court cases among total court cases
- Number and type of complaints about land acquisition, compensation process and land use problems
- Status of complaints (open, closed), closing time and resolution status,
- Number of PAPs received any compensation payments and / or subsistence,
- Number of stakeholders contacted during the RAP Implementation (types of stakeholders, issues raised / discussed, and gender distribution of participation) and feedback from Consultations,
- Amount and number of RAP-LRP Fund payments,
- Number of livelihood restoration activities and types of eligible PAPs,
- Number and types of the grievances about resettlement issues,
- Detections of nonconformity and appropriateness of solutions.

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CHAPTER 10. IMPLEMENTATION RESPONSIBILITIES AND FUNDING

10.1 Roles and Responsibilities

The roles and responsibilities required in the RAP-LRP implementation are presented in Table 10-1.

Table 10-1 Roles and Responsibilities for RAP implementation

Level/Unit	Roles	Responsible
Senior Management		
AYGM Senior Management	<p>AYGM Senior Management will review and approve reports and documents associated with Project implementation and will be responsible for establishing the PIU and appointing technical specialists to effectively audit the implementation of environmental, social and health and safety measures and processes, including this RAP. AYGM will ensure that all relevant activities are executed according to relevant national legislation and PS5 requirements. With specific regards to this RAP, AYGM Senior Management will:</p> <ul style="list-style-type: none"> ■ Approve the RAP (after Lender's approval). ■ Establish a PIU to implement the Project. ■ Ensure sufficient budget for resettlement and compensation through national legislation and the RAP-LRP Fund. ■ Signed protocol between TCDD, AYGM and IFI ■ Written protocol that defines the roles, responsibilities and processes for the establishment and management of the RAP- LRP Fund. ■ AYGM will be responsible overall RAP-LRP Budget and contracted to implementation of RAP-LRP to IFI. ■ Additional payments for full replacement value will be paid from RAP-LRP Fund. 	<ul style="list-style-type: none"> ■ AYGM - IFI
AYGM Expropriation Unit	<ul style="list-style-type: none"> ■ Census and Asset Inventory will be prepared in accordance with PS5. ■ Valuation process will be completed. ■ Project Expropriation will be completed. ■ 	<ul style="list-style-type: none"> ■ AYGM -IFI
TCDD	<ul style="list-style-type: none"> ■ Operation 	<ul style="list-style-type: none"> ■ TCDD
Environmental and social Management (ESM) Team	<ul style="list-style-type: none"> ■ Take on leadership and full commitment for the effective implementation of RAP-LRP by AYGM, JV and subcontractor personnel. ■ Ensure allocation of adequate financial and human resources for effective implementation of RAP-LRP throughout the Project in line with the Project Standards. ■ Review and approve E&S policies and key E&S management/action (i.e., SEP, ESMP, RAP-LRP) plans, including updates, whenever necessary. ■ Approve high-level/key stakeholder engagement strategies (e.g., engagement with central and local governmental stakeholders, parliamentarians, political party representatives, NGOs, media) before RAP implementation. ■ Conduct periodic reviews of RAP implementation based on the reports submitted by the General Project Management – ESM team. 	<ul style="list-style-type: none"> ■ AYGM
General Project Management		

Level/Unit	Roles	Responsible
Health Safety and Environment (HSE) Manager	<ul style="list-style-type: none"> Work in coordination with Social Manager and HR Manager to review internal and external grievances and ensure/verify that the site teams address the grievances/corrective actions in responsive timeframes in accordance with the Project SEP; approve corrective actions to be implemented by HSE Site Chiefs. Report to the Senior Project Management Team on Project's HSE Performance and key HSE issues, including RAP-LRP, ESMP and SEP implementation. 	■ AYGM and JV
Social Manager	<ul style="list-style-type: none"> Oversee compliance of Project's social performance (including implementation of measures/actions related to SEP, GM, RAP) with Project Standards. Prepare social management/action plan updates and training documents on the implementation of the SEP and grievance mechanism as part of Project ESM. Work in coordination with HSE Manager, HR Manager and other relevant manager/directors to review external grievances and ensure/verify that the site teams address the external grievances/corrective actions in responsive timeframes in accordance with the Project SEP. Evaluate the capacity of the site social teams/officers for RAP implementation. Ensure effective and periodic communication with the internal and external stakeholders. Review resettlement and loss of income related public grievances and ensure/verify that the site teams address the public grievances/corrective actions in responsive timeframes. Ensure the LRP and Vulnerability Assistance implementations. 	■ AYGM and JV
Land Acquisition, RAP and LRP Manager	<ul style="list-style-type: none"> To ensure coordination with land acquisition team To ensure the implementation of RAP-LRP. Reaching rights holders and providing their entitlements Ensure the LRP and Vulnerability Assistance implementations. 	■ AYGM and JV
Human Resources (HR) Manager	<ul style="list-style-type: none"> Ensure Project labour management practices adhere to the Project Standards and endorsed to the Contractor and subcontractors accordingly. Ensure providing commitments of local employment. 	■ AYGM and JV
Director of Infrastructure and Superstructure Works	<ul style="list-style-type: none"> Ensure fulfilment of all applicable national legislative and permitting requirements in the Project. Ensure adequate resources are allocated for the implementation of the Project RAP-LRP during the construction phase. 	■ AYGM and JV
Director of Technical Affairs	<ul style="list-style-type: none"> Ensure fulfilment of all applicable national legislative and permitting requirements in the Project. Ensure incorporation of the RAP-LRP, ESMP and SEP requirements to the contracts/agreements made with the subcontractors and vendors. 	■ AYGM and JV
Director of Financial and Administrative Affairs	<ul style="list-style-type: none"> Ensure required financial allocations are in place for effective implementation of RAP-LRP. 	■ AYGM
Regional Project Management (E&S Positions)		

Level/Unit	Roles	Responsible
HSE Chief	<ul style="list-style-type: none"> ■ Work in coordination with CLOs who are the members of CLT to review internal and external grievances and implement required corrective actions, if any, in responsive timeframes in accordance with the Project SEP and with approval from HSE Manager. ■ Report to the HSE Manager on Project's HSE Performance and key HSE issues, including RAP-LRP, ESMP and SEP implementation. 	■ JV
Community Liaison Team (CLT)	<ul style="list-style-type: none"> ■ Ensure compliance of Project's social performance (including implementation of measures/actions related to SEP, GM, RAP-LRP) with Project Standards. ■ Ensure effective and periodic communication with the external stakeholders during the construction phase. ■ In coordination with the HR team and Site HSE specialists, ensure all Project personnel (direct and contracted) receives trainings on the implementation of the internal and external grievance mechanism developed for the Project (e.g., how to submit internal grievances, how to manage external grievances, etc.) at the time of employment. ■ Support HSE Senior Specialist and Social Manager in the implementation of RAP-LRP. ■ Management of internal grievances as required. 	■ JV
Subcontractors		
Subcontractors	<ul style="list-style-type: none"> ■ Ensure compliance with the Project-specific E&S policies, E&S management plans and Project Standards, including RAP-LRP, ESMP and SEP in line with their contractual requirements. ■ Ensure competent and trained HSE staff is allocated to implement SEP. 	■ NA

10.2 Time Frame

[NTD: When the RAP draft reaches the disclose stage, the timeline will be determined similar to the table below.]

Table 10-2 RAP-LRP Implementation Schedule

Implementation Topics	Dates
Census and Asset Inventory preparation (including formal-informal users and vulnerable PAPs)	Before expropriation
Disclosure of the RAP	Before expropriation
Announcement of the eligibility and the entitlements to PAPs	Before expropriation
Compensations according to national legislation	During expropriation
Compensations according to international requirements	During expropriation
Completion of physical resettlement	During expropriation
Mobilization of the contractor and the subcontractors	After expropriation
Land entry protocols for the temporary affected lands	After expropriation, before construction
CLT activities, negotiations with PAPs and the operation of the GM	During the Project
Community level supports	During the Project
Compensations harms and damages	During the Project
Monitoring and Evaluation (M&E)	During the Project, periodically

10.3 Estimated Budget

The realization of a land acquisition process in accordance national legislation shall be complemented by with PS5 and PR5 and requires additional improvements and payments. For these additional payments, a RAP-LRP Fund will be established. A protocol will be signed between the parties for the establishment and management of the RAP-LRP Fund. This section presents the estimated budget of the RAP-LRP Fund.

The implementation of the RAP includes all compensation costs, costs of additional allowances to minimise the impacts on the livelihoods and other assistances allowances and external consultant costs.

AYGM and JV will have separate budgets for the implementation of the RAP.

- **AYGM:** Ministry of Finance will allocate a budget for the compensation of the PAPs according to the Expropriation Law.
- **JV:** JV will have a separate budget to compensate the gaps of the Expropriation Law against PS5, including the establishment of the grievance mechanism, monitoring activities, stakeholder engagement activities, assistance to vulnerable people, restoration of the livelihoods of the PAPs. Budget will be allocated according to signed protocol between the parties for RAP-LRP Fund.

The detailed and estimated budget breakdown is provided in Appendix D.

The budget in Appendix D is an estimated figure including the expenditures of RAP-LRP Fund to fill the gap between national and international legislation covered in CHAPTER 2. REGULATORY FRAMEWORK.

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Figure 10-1 Updated version of the estimated budget

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For the full replacement value for affected buildings in accordance with PS5, the depreciation reduction in the expropriation value account in accordance with the national Expropriation Law will be paid to the landlords from the RAP-LRP budget. Deductions in the payment made according to the national Expropriation Law for compensation in the replacement cost in accordance with PS5 for trees and fixed assets (depreciation, cutting costs, etc.).

The calculation of some items in the budget could not be made due to lack of information. Calculations will be added to the Budget when the necessary information is provided.

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APPENDIX A

Field Study Photolog

In accordance with the personal data protection law, this appendix was censored during the disclosure of RAP.

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Photo no:	1
Date (tarih)	27.06.2022
Province (il-İLçe):	Yozgat-Yerköy
Settlement (yerleşim):	Cakcak
Adres:	Durak Mh
Parcel no:	
	

Photo no:	2
Date (tarih)	27.06.2022
Province (il-İLçe):	Yozgat-Yerköy
Settlement (yerleşim):	Cakcak
Adres:	Durak Mh
Parcel no:	



Photo no:	3
Date (tarih)	27.06.2022
Province (il-ilçe):	Yozgat-Yerköy
Settlement (yerleşim):	Cakcak
Adres:	Durak Mh
Parcel no:	




Photo no:	4
Date (tarih)	28.06.2022
Province (il-ilçe):	Yozgat-Şefaatli
Settlement (yerleşim):	Başköy
Addres:	
Parcel no:	
	



Photo no:	5
Date (tarih)	28.06.2022
Province (il-ilçe):	Yozgat-Şefaatli
Settlement (yerleşim):	Başköy
Adres:	
Parcel no:	
	

Photo no:	6
Date (tarih)	28.06.2022
Province (il-ilçe):	Yozgat-Yenifakılı
Settlement (yerleşim):	Yazlak
Adres:	
Parcel no:	
	

Photo no:	7
Date (tarih)	28.06.2022
Province (il-İlçe):	Yozgat-Yenifakılı
Settlement (yerleşim):	Yazlak
Adres:	
Parcel no:	
	

Photo no:	8
Date (tarih)	28.06.2022
Province (il-ilçe):	Yozgat-Yenifakılı
Settlement (yerleşim):	Yazlak
Adres:	
Parcel no:	
	

Photo no:	9
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Province (il-ilçe):	Kayseri-Kocasinan
Settlement (yerleşim):	Düver
Addres:	
Parcel no:	
	

Photo no:	10
Date (tarih)	29.06.2022
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Settlement (yerleşim):	Düver
Addres:	
Parcel no:	
	



Photo no:	11
Date (tarih)	30.06.2022
Province (il-ilçe):	Yozgat-Yenifakılı
Settlement (yerleşim):	Mehmet Akif Ersoy
Addres:	
Parcel no:	
	



Photo no:	12
Date (tarih)	01.07.2022
Province (il-ilçe):	Yozgat-Yenifakılı
Settlement (yerleşim):	Yazlak
Adres:	
Parcel no:	
	



Photo no:	13
Date (tarih)	30.06.2022
Province (il-ilçe):	Kayseri-Kocasinan
Settlement (yerleşim):	Molu
Adres:	
Parcel no:	
	

Photo no:	14
Date (tarih)	29.06.2022
Province (il-ilçe):	Yozgat-Yerköy
Settlement (yerleşim):	Yüzüncüyıl
Adres:	
Parcel no:	

The facility belonging to the General Directorate of Sports





Photo no:	15
Date (tarih)	30.06.2022
Province (il-ilçe):	Yozgat-Yerköy
Settlement (yerleşim):	Yüzüncüyıl
Addres:	
Parcel no:	
	

Photo no:	16
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Adres:	
Parcel no:	






Photo no:	17
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Settlement (yerleşim):	Kanlıca
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Parcel no:	
	

Photo no:	18
Date (tarih)	01.07.2022
Province (il-İlçe):	Nevşehir-Kozaklı
Settlement (yerleşim):	Kanlıca
Adres:	
Parcel no:	
	

APPENDIX B

Relocation Case Studies

In accordance with the personal data protection law, this appendix was censored during the disclosure of RAP.

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Appendix B1. Case Study 1: İsmailoğulları Agriculture and Livestock LTD. STI. (B1)

Four families living in the same place earn their living from this facility.

There are more than one building in these parcels that are used as houses and workplaces. All structures are registered/licensed.

The operation field of the company is agriculture and animal husbandry.

The family that owns the company owns the lands and all the buildings. If resettlement is required, the family is considering moving to Eskiören village, where they also have other lands.



Figure 10-2 İsmailoğulları Agriculture and Livestock facility and houses

A consultative resettlement process will be followed to ensure that the businesses do not lose of business and income.

Appendix B2. Case Study 2: Pırlanta Wedding Hall (B2)

In Yozgat - Yerköy - Yüzüncüyıl, the railway passes through the land where the Diamond Wedding Hall is located and gets very close to the facility. Avoidance measures were taken, and it was planned to protect the facility by constructing a retaining wall. However, the retaining wall comes very close to the glassed-in porch of the facility. The wedding culture in the region is based on pomp.



Figure 10-3 Location of the Pırlanta wedding hall

For these reasons, the owner requests the expropriation of the facility. The owner of the business, who has not been able to invest heavily in his facility since 2015, because he knows that the railway will be built, thinks that they are adversely affected even by the planning stage.

The facility is a 2-storey building. There is a concrete area, trees and gazebos in the garden. There are glass porches on both sides of the building. There are toilets, kitchen, storage, tearoom, bridal room in the facility. The garden is surrounded by a wall.



Figure 10-4 Pirlanta wedding hall

Appendix B3. Case Study 3: Sunolus Winery (B3)

The facility where the wines Sunolus and Vinolus are produced is not affected by the land acquisition of the project. However, the old vineyards on the large lands where the facility is located are affected by the project.

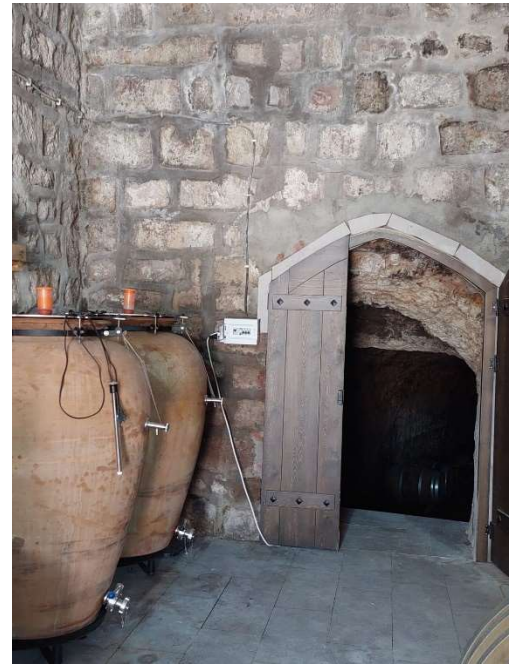
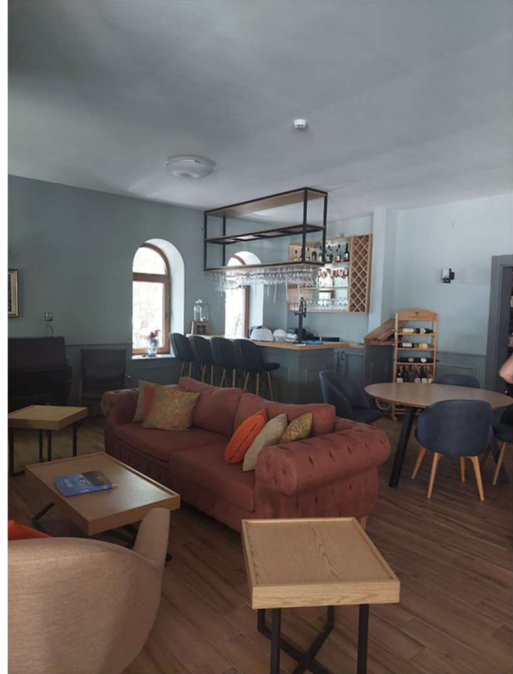


Figure 10-5 Wine production plant



Figure 10-6 Awards of the wines produced on affected lands

There is an oenotourism hotel on the land.



Figure 10-7 Oenotourism facilities in Turkey

Organic production is carried out in the facility. In this sense, the railway is expected to have a negative impact. For this reason, the owner wants to buy another old vineyard away from the railway and re-graft and produce good quality grapes.





Figure 10-8 Affected vineyards

APPENDIX C

Technical Specifications of the Project

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Appendix C1 Names, Legends and Locations of Bridges

Bridge Name	Kilometer		Length (m)	Province/District
K-1	1+100	1+163	62	Yozgat/Yerköy
K-2	2+276	2+306	30	Yozgat/Yerköy
K-3	4+163	4+193	30	Yozgat/Yerköy
K-4	4+854	4+884	30	Yozgat/Yerköy
K-5	8+464	8+786	322	Yozgat/Yerköy
K-6	12+874	13+359	485	Yozgat/Yerköy
K-7	16+209	16+401	192	Yozgat/Yerköy
K-8	19+139	19+364	225	Yozgat/Yerköy
K-9	22+413	22+446	32	Yozgat/Yenifakılı
K-10	37+764	38+054	290	Yozgat/Yenifakılı
K-11	46+059	46+089	30	Yozgat/Yenifakılı
K-12	65+195	65+225	30	Nevşehir/Kozaklı
K-13	73+595	73+625	30	Yozgat/Yenifakılı
K-14	80+640	80+670	30	Yozgat/Yenifakılı
K-15	117+257	117+287	30	Kayseri/Kocasinan
K-16	121+640	122+093	452	Kayseri/Kocasinan
K-17	137+082	127+112	30	Kayseri/Kocasinan
K-18	138+076	138+138	62	Kayseri/Kocasinan

Appendix C2 Names, Legends and Locations of Underpasses

Underpass Name	Kilometer	Underpass Name	Kilometer
Underpass-1	0+620	Underpass-60	78+140
Underpass-2	2+332	Underpass-61	74+583
Underpass-3	3+001	Underpass-62	78+896
Underpass-4	3+225	Underpass-63	80+038
Underpass-5	3+692	Underpass-64	80+899
Underpass-6	3+878	Underpass-65	82+545
Underpass-7	3+992	Underpass-66	83+209
Underpass-8	6+427	Underpass-67	85+695
Underpass-9	9+198	Underpass-68	85+945
Underpass-10	10+653	Underpass-69	86+339
Underpass-11	11+404	Underpass-70	86+816
Underpass-12	11+999	Underpass-71	87+521
Underpass-13	15+442	Underpass-72	88+617
Underpass-14	23+076	Underpass-73	90+861
Underpass-15	23+340	Underpass-74	91+288
Underpass-16	24+838	Underpass-75	91+802
Underpass-17	25+857	Underpass-76	93+901
Underpass-18	27+134	Underpass-77	94+657
Underpass-19	31+194	Underpass-78	95+637
Underpass-20	31+436	Underpass-79	96+974
Underpass-21	33+704	Underpass-80	97+216
Underpass-22	36+021	Underpass-81	98+075
Underpass-23	40+872	Underpass-82	99+409
Underpass-24	41+704	Underpass-83	100+318
Underpass-25	43+279	Underpass-84	101+388
Underpass-26	44+519	Underpass-85	101+718
Underpass-27	44+839	Underpass-86	104+819
Underpass-28	45+943	Underpass-87	105+257

Underpass Name	Kilometer	Underpass Name	Kilometer
Underpass-29	46+420	Underpass-88	105+984
Underpass-30	47+617	Underpass-89	112+298
Underpass-31	47+975	Underpass-90	113+426
Underpass-32	48+483	Underpass-91	114+134
Underpass-33	51+483	Underpass-92	114+720
Underpass-34	52+069	Underpass-93	115+162
Underpass-35	54+541	Underpass-94	118+239
Underpass-36	56+391	Underpass-95	119+109
Underpass-37	56+683	Underpass-96	119+377
Underpass-38	57+443	Underpass-97	119+606
Underpass-39	58+731	Underpass-98	119+832
Underpass-40	59+871	Underpass-99	120+236
Underpass-41	61+034	Underpass-100	121+080
Underpass-42	61+380	Underpass-101	121+320
Underpass-43	61+960	Underpass-102	122+171
Underpass-44	63+497	Underpass-103	123+619
Underpass-45	64+495	Underpass-104	124+575
Underpass-46	64+804	Underpass-105	124+846
Underpass-47	65+453	Underpass-106	124+989
Underpass-48	66+014	Underpass-107	125+347
Underpass-49	66+738	Underpass-108	126+197
Underpass-50	69+783	Underpass-109	126+719
Underpass-51	70+064	Underpass-110	130+474
Underpass-52	70+913	Underpass-111	131+117
Underpass-53	72+607	Underpass-112	131+600
Underpass-54	72+670	Underpass-113	131+915
Underpass-55	73+243	Underpass-114	131+965
Underpass-56	74+343	Underpass-115	132+296
Underpass-57	74+942	Underpass-116	133+011

Underpass Name	Kilometer	Underpass Name	Kilometer
Underpass-58	76+587	Underpass-117	138+240
Underpass-59	77+714		

Agricultural underpasses

No	KM	TYPE	EXPLANATION
001	3 + 001,680	HIGHWAY UNDERPASS	Agricultural Underpass
002	3 + 225,390	HIGHWAY UNDERPASS	Agricultural Underpass
003	11 + 404,140	HIGHWAY UNDERPASS	Agricultural Underpass
004	15 + 442,000	HIGHWAY UNDERPASS	Agricultural Underpass
005	23 + 340,460	HIGHWAY UNDERPASS	Agricultural Underpass
006	27 + 134,090	HIGHWAY UNDERPASS	Agricultural Underpass
007	47 + 975,740	HIGHWAY UNDERPASS	Agricultural Underpass
008	52 + 069,830	HIGHWAY UNDERPASS	Agricultural Underpass
009	57 + 443,940	HIGHWAY UNDERPASS	Agricultural Underpass
010	63 + 497,460	HIGHWAY UNDERPASS	Agricultural Underpass
011	66 + 738,920	HIGHWAY UNDERPASS	Agricultural Underpass
012	69 + 783,770	HIGHWAY UNDERPASS	Agricultural Underpass
013	72 + 607,260	HIGHWAY UNDERPASS	Agricultural Underpass
014	76 + 587,030	HIGHWAY UNDERPASS	Agricultural Underpass
015	77 + 714,370	HIGHWAY UNDERPASS	Agricultural Underpass
016	85 + 695,980	HIGHWAY UNDERPASS	Agricultural Underpass
017	85 + 944,800	HIGHWAY UNDERPASS	Agricultural Underpass
018	86 + 339,430	HIGHWAY UNDERPASS	Agricultural Underpass
019	86 + 816,690	HIGHWAY UNDERPASS	Agricultural Underpass
020	87 + 521,610	HIGHWAY UNDERPASS	Agricultural Underpass

No	KM	TYPE	EXPLANATION
021	90 + 861,230	HIGHWAY UNDERPASS	Agricultural Underpass
022	91 + 288,740	HIGHWAY UNDERPASS	Agricultural Underpass
023	95 + 637,630	HIGHWAY UNDERPASS	Agricultural Underpass
024	96 + 974,710	HIGHWAY UNDERPASS	Agricultural Underpass
025	100 + 318,350	HIGHWAY UNDERPASS	Agricultural Underpass
026	115 + 162,250	HIGHWAY UNDERPASS	Agricultural Underpass
027	119 + 109,220	HIGHWAY UNDERPASS	Agricultural Underpass
028	119 + 606,080	HIGHWAY UNDERPASS	Agricultural Underpass
029	120 + 236,460	HIGHWAY UNDERPASS	Agricultural Underpass
030	121 + 080,240	HIGHWAY UNDERPASS	Agricultural Underpass
031	121 + 320,540	HIGHWAY UNDERPASS	Agricultural Underpass
032	124 + 575,200	HIGHWAY UNDERPASS	Agricultural Underpass
033	124 + 989,480	HIGHWAY UNDERPASS	Agricultural Underpass
034	126 + 197,810	HIGHWAY UNDERPASS	Agricultural Underpass
035	126 + 329,000	HIGHWAY UNDERPASS	Connection - 0+621 Agricultural Underpass
036	131 + 600,560	HIGHWAY UNDERPASS	Agricultural Underpass

Appendix C3 Names, Legends and Locations of Overpasses

Overpass Name	Kilometer	Overpass Name	Kilometer
Overpass-1	17+085	Overpass-11	50+370
Overpass-2	18+516	Overpass-12	53+557
Overpass-3	20+178	Overpass-13	84+274
Overpass-4	21+937	Overpass-14	103+413
Overpass-5	27+785	Overpass-15	111+413
Overpass-6	29+651	Overpass-16	122+461
Overpass-7	32+234	Overpass-17	123+082
Overpass-8	32+951	Overpass-18	124+187
Overpass-9	38+705	Overpass-19	125+912
Overpass-10	46+681	Overpass-20	137+117

Appendix C4 Names, Legends and Locations of Culverts

Culvert Name	Kilometer	Culvert Name	Kilometer
Culvert-1	0+223,03	Culvert-89	60+175,50
Culvert-2	0+361,56	Culvert-90	60+663,36
Culvert-3	0+400,18	Culvert-91	61+391,03
Culvert-4	0+613,63	Culvert-92	61+768,19
Culvert-5	0+822,96	Culvert-93	62+042,13
Culvert-6	1+235,52	Culvert-94	63+530,91
Culvert-7	1+564,39	Culvert-95	64+366,54
Culvert-8	1+805,89	Culvert-96	64+553,33
Culvert-9	2+804,54	Culvert-97	64+710,59
Culvert-10	4+547,23	Culvert-98	64+940,46
Culvert-11	4+625,49	Culvert-99	65+547,43
Culvert-12	5+200,74	Culvert-100	66+026,57
Culvert-13	5+320,26	Culvert-101	66+243,67
Culvert-14	5+607,57	Culvert-102	66+542,29
Culvert-15	5+674,67	Culvert-103	66+730,21
Culvert-16	6+317,25	Culvert-104	68+244,36
Culvert-17	6+417,53	Culvert-105	68+458,11
Culvert-18	8+312,71	Culvert-106	68+948,44
Culvert-19	9+794,25	Culvert-107	69+242,67
Culvert-20	9+875,13	Culvert-108	69+384,22
Culvert-21	9+955,54	Culvert-109	69+531,10
Culvert-22	10+020,05	Culvert-110	69+768,26
Culvert-23	10+105,16	Culvert-111	70+117,32
Culvert-24	10+597,40	Culvert-112	70+312,45
Culvert-25	12+658,41	Culvert-113	70+474,21
Culvert-26	15+431,23	Culvert-114	72+038,98
Culvert-27	16+043,65	Culvert-115	72+590,57
Culvert-28	16+464,78	Culvert-116	72+832,91

Culvert Name	Kilometer	Culvert Name	Kilometer
Culvert-29	16+580,47	Culvert-117	73+916,09
Culvert-30	16+705,56	Culvert-118	74+328,98
Culvert-31	17+032,59	Culvert-119	74+595,42
Culvert-32	17+485,40	Culvert-120	75+135,19
Culvert-33	18+213,18	Culvert-121	76+100,09
Culvert-34	19+006,73	Culvert-122	76+452,94
Culvert-35	22+124,81	Culvert-123	76+910,34
Culvert-36	23+688,55	Culvert-124	77+070,94
Culvert-37	24+234,50	Culvert-125	77+678,10
Culvert-38	24+650,48	Culvert-126	78+166,88
Culvert-39	25+067,27	Culvert-127	78+546,57
Culvert-40	25+494,64	Culvert-128	80+208,01
Culvert-41	25+846,46	Culvert-129	81+057,47
Culvert-42	26+334,36	Culvert-130	81+554,26
Culvert-43	26+664,57	Culvert-131	82+115,32
Culvert-44	26+855,80	Culvert-132	82+344,38
Culvert-45	27+053,17	Culvert-133	92+424,47
Culvert-46	28+135,73	Culvert-134	93+486,29
Culvert-47	30+773,74	Culvert-135	93+883,16
Culvert-48	31+354,51	Culvert-136	97+074,48
Culvert-49	31+925,23	Culvert-137	97+816,09
Culvert-50	32+601,25	Culvert-138	101+666,27
Culvert-51	33+443,42	Culvert-139	103+694,86
Culvert-52	33+588,49	Culvert-140	112+771,60
Culvert-53	36+084,58	Culvert-141	114+564,06
Culvert-54	36+827,42	Culvert-142	115+221,49
Culvert-55	37+700,50	Culvert-143	116+034,58
Culvert-56	38+271,95	Culvert-144	118+042,18
Culvert-57	40+546,46	Culvert-145	118+255,35

Culvert Name	Kilometer	Culvert Name	Kilometer
Culvert-58	41+138,64	Culvert-146	119+545,74
Culvert-59	42+035,44	Culvert-147	119+826,77
Culvert-60	42+520,44	Culvert-148	120+126,28
Culvert-61	42+851,50	Culvert-149	120+815,76
Culvert-62	44+305,46	Culvert-150	120+966,10
Culvert-63	44+662,87	Culvert-151	122+395,13
Culvert-64	45+072,52	Culvert-152	123+362,32
Culvert-65	45+166,46	Culvert-153	123+503,07
Culvert-66	45+361,57	Culvert-154	123+822,78
Culvert-67	46+127,16	Culvert-155	123+830,04
Culvert-68	46+224,11	Culvert-156	124+526,00
Culvert-69	47+365,45	Culvert-157	124+539,56
Culvert-70	48+354,59	Culvert-158	124+770,41
Culvert-71	49+664,54	Culvert-159	124+981,22
Culvert-72	50+243,51	Culvert-160	125+162,28
Culvert-73	51+552,44	Culvert-161	125+360,82
Culvert-74	51+690,57	Culvert-162	125+889,17
Culvert-75	52+600,44	Culvert-163	126+205,79
Culvert-76	52+796,44	Culvert-164	126+328,16
Culvert-77	53+673,01	Culvert-165	126+732,04
Culvert-78	53+857,53	Culvert-166	129+926,51
Culvert-79	54+382,47	Culvert-167	129+982,62
Culvert-80	55+006,33	Culvert-168	130+501,86
Culvert-81	56+346,82	Culvert-169	130+573,59
Culvert-82	56+562,34	Culvert-170	130+654,19
Culvert-83	56+716,18	Culvert-171	131+188,72
Culvert-84	57+474,61	Culvert-172	131+363,31
Culvert-85	58+489,41	Culvert-173	132+573,87
Culvert-86	58+849,72	Culvert-174	137+101,95

Culvert Name	Kilometer	Culvert Name	Kilometer
Culvert-87	59+098,88	Culvert-175	138+658,53
Culvert-88	59+282,71	Culvert-176	139+338,97

Appendix C5 Names, Legends, Types and Locations of Tunnels including Escape Tunnels

Tunnel Name	Kilometer		Length (m)	Tunnel Type
T1	7+046	8+066	1020	NATM
T2	10+865	11+195	330	NATM
T3	13+405	15+365	1960	NATM
T4	15+515	15+965	450	NATM
T5	17+598	18+045	447	NATM
T6	66+980	67+890	910	NATM
T7	108+312	111+282	2970	NATM
T8	127+798	129+527	1729	NATM
T9	133+662	136+942	3280	NATM
AKT-1	5+800	6+270	470	Cut and Cover
AKT-2	21+000	21+830	830	Cut and Cover
AKT-3	50+665	51+255	590	Cut and Cover
AKT-4	62+465	63+285	820	Cut and Cover
AKT-5	102+990	103+103	113	Cut and Cover
AKT-6	107+930	108+312	382	Cut and Cover

Escape Tunnel	Kilometer	Length (m)	Tunnel Type
KT-1	14+500(Tunnel T3)	900	NATM
KT-2	109+300(Tunnel T7)	338	NATM
KT-3	110+400(Tunnel T7)	202	NATM
KT-4	128+600(Tunnle T8)	574	NATM
KT-5	134+700(Tunnel T9)	208	NATM
KT-6	135+800(Tunnel T8)	436	NATM

APPENDIX D

Estimated RAP-LRP Budget

Secret

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APPENDIX E

GLAC (Draft)

Draft of the Guidance is presented as a separate .pptx doc

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