



# Republic of Türkiye Ministry of Environment, Urbanization and Climate Change

General Directorate of Construction Affairs

# TÜRKİYE EARTHQUAKE RECOVERY AND RECONSTRUCTION PROJECT (TERRP)

**Subproject Name** Elazığ Province Central District Rural Housing Project

(58 Rural Houses)

**Document Name** Environmental and Social Management Plan

Version 0.1

**Submission Date** 03/07/2024





	Prepared by	Reviewed by
Version 0.0 Date 13.06.2024	Kübra ÖZSOY – Environmental Engineer İlksen ÖZÇAKMAK- Environmental Engineer Ceyda KULOĞLU – Social Expert Onur BİLGİNER – Social Expert Birol KIŞLAOĞLU – A Class Occupational Safety Specialist	EMAY International Engineering and Consultancy Inc. – Project Director
Version 0.1 Date 03.07.2024	Kübra ÖZSOY – Environmental Engineer İlksen ÖZÇAKMAK- Environmental Engineer Ceyda KULOĞLU – Social Expert Onur BİLGİNER – Social Expert Birol KIŞLAOĞLU – A Class Occupational Safety Specialist	EMAY International Engineering and Consultancy Inc. – Project Director

This Environmental and Social Management Plan is developed by the EMAY within the scope of "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing (Ref: TERRP/CS-DESSUP-03)" under Türkiye Earthquake Recovery and Reconstruction Project.





#### **Table of Contents**

Tab	ole of Contents	3
List	of Tables	4
List	of Figures	5
List	of Abbreviations	6
1	Introduction	7
2	The Rationale of the Environmental and Social Management Plan	8
3	Legal and Institutional Framework	9
4	Project Description	10
4.1	Cip Village	11
4.2	Çamyatağı Village	18
4.3	Salkaya Village	19
4.4	Alatarla Village	20
4.5	Altınkuşak Village	22
4.6	Alaca Village	23
4.7	Poyraz Village	24
4.8	Üçağaç Village	26
4.9	Yukarıçakmak Village	30
4.10	O Alpavut Village	32
4.11	Project Characteristics	35
5	Information Activities and Stakeholder Engagement for ESMP	36
6	Environmental and Social Management Plan	37
App	oendices	61
App	oendix 1. Site Photographs	61
	Site Photographs of Cip Village	61
	Site Photographs of Çamyatağı Village	68
	Site Photographs of Salkaya Village Resettlement Area	69
	Site Photographs of Alaca Village	71
	Site Photographs of Altınkuşak Village	72
	Site Photographs of Alatarla Village	73
	Site Photographs of Poyraz Village	74
	Site Photographs of Üçağaç Village	75
	Site Photographs of Yukarıçakmak Village	80
	Site Photographs of Alpavut Village	81
App	oendix 2. E&S Screening Form	84





## **List of Tables**

Table 1. Characteristics of the Project's Parcels	10
Table 2. Distance to Sensitive Receptors (Cip Village 114/86 and 128/72-73-74 Parcels)	12
Table 3. Distance to Sensitive Receptors (Cip Village 101/11 Parcel)	13
Table 4. Distance to Sensitive Receptors (Cip Village 160/21 Parcel)	14
Table 5. Distance to Sensitive Receptors (Cip Village 169/3 Parcel)	15
Table 6. Distance to Sensitive Receptors (Cip Village 177/22 Parcel)	16
Table 7. Distance to Sensitive Receptors (Cip Village 105/18 Parcel)	17
Table 8. Distances to Sensitive Receptors (Çamyatağı Village 105/298 Parcel)	19
Table 9. Distances to Sensitive Receptors (Salkaya Village)	20
Table 10. Distances to Sensitive Receptors (Alatarla Village 102/38 Parcel)	21
Table 11. Distances to Sensitive Receptors (Altınkuşak Village 1791 Parcel)	23
Table 12. Distances to Sensitive Receptors (Alaca Village 127/7 Parcel)	24
Table 13. Distances to Sensitive Receptors (Poyraz Village 102/43 Parcel)	25
Table 14. Distances to Sensitive Receptors (Üçağaç Village 107/140 Parcel)	27
Table 15. Distances to Sensitive Receptors (Üçağaç Village 115/1 Parcel)	28
Table 16. Distances to Sensitive Receptors (Üçağaç Village 111/1 Parcel)	29
Table 17. Distances to Sensitive Receptors (Üçağaç Village 103/235 Parcel)	30
Table 18. Distances to Sensitive Receptors (Yukarıçakmak Village 149/1 Parcel)	31
Table 19. Distances to Sensitive Receptors (Alpavut Village 102/1 Parcel)	
Table 20. Distances to Sensitive Receptors (Alpavut Village 120/4 Parcel)	34
Table 21. Distances to Sensitive Receptors (Alpavut Village 109/13 Parcel)	35
Table 22. Environmental and Social Management Plan	38





# **List of Figures**

Figure 1. Satellite Image of Cip Village 114/86 and 128/72-73-74 Parcels	12
Figure 2. AoI of Cip Village 114/86 and 128/72-73-74 Parcels	12
Figure 3. Satelllite Image of Cip Village 101/11 Parcel	13
Figure 4. AoI of Cip Village 101/11 Parcel	13
Figure 5. Satelllite Image of Cip Village 160/21 Parcel	14
Figure 6. AoI of Cip Village 160/21 Parcel	14
Figure 7. Satelllite Image of Cip Village 169/3 Parcel	15
Figure 8. AoI of Cip Village 169/3 Parcel	15
Figure 9. Satelllite Image of Cip Village 177/22 Parcel	16
Figure 10. AoI of Cip Village 177/22 Parcel	16
Figure 11. Satelllite Image of Cip Village 105/18 Parcel	17
Figure 12. AoI of Cip Village 105/18 Parcel	17
Figure 13. Satelllite Image of Çamyatağı Village 105/298 Parcel	18
Figure 14. AoI of Çamyatağı Village 105/298 Parcel	18
Figure 15. Satelllite Image of Salkaya Village Resettlement AreaArea	19
Figure 16. AoI of Salkaya Village Resettlement Area	20
Figure 17. Satelllite Image of Alatarla Village 102/38 Parcel	21
Figure 18. AoI of Alatarla Village 102/38 Parcel	21
Figure 19. Satellite Image of Altınkuşak Village 1791 Parcel	22
Figure 20. AoI of Altınkuşak Village 1791 Parcel	22
Figure 21. Satellite Image of Alaca Village 127/7 Parcel	23
Figure 22. AoI of Alaca Village 127/7 Parcel	24
Figure 23. Satellite Image of Poyraz Village 102/43 Parcel	25
Figure 24. AoI of Poyraz Village 102/43 Parcel	25
Figure 25. Satellite Image of Üçağaç Village 107/140 Parcel	26
Figure 26. AoI of Üçağaç Village 107/140 Parcel	27
Figure 27. Satellite Image of Üçağaç Village 115/1 Parcel	27
Figure 28. AoI of Üçağaç Village 115/1 Parcel	28
Figure 29. Satellite Image of Üçağaç Village 111/1 Parcel	28
Figure 30. AoI of Üçağaç Village 111/1 Parcel	29
Figure 31. Satellite Image of Üçağaç Village 103/235 Parcel	29
Figure 32. AoI of Üçağaç Village 103/235 Parcel	30
Figure 33. Satellite Image of Yukarıçakmak Village 149/1 Parcel	31
Figure 34. AoI of Yukarıçakmak Village 149/1 Parcel	31
Figure 35. Satellite Image of Alpavut Village 102/1 Parcel	32
Figure 36. AoI of Alpavut Village 102/1 Parcel	33
Figure 37. Satellite Image of Alpavut Village 120/4 Parcel	33
Figure 38. AoI of Alpavut Village 120/4 Parcel	34
Figure 39. Satellite Image of Alpavut Village 109/13 Parcel	34
Figure 40, AoJ of Alpayut Village 109/13 Parcel	35





#### **List of Abbreviations**

**AFAD** : Disaster and Emergency Management Presidency

**AoI** : Area of Influence

**C-ESMP** : Contractor Environmental and Social Management Plan

**CFP**: Chance Find Procedure

**CHS** : Community Health and Safety

DSI : State Hydraulic Works

E&S : Environmental and Social

EBRD : European Bank for Reconstruction and DevelopmentEMAY : EMAY International Engineering and Consultancy Inc.

**ESHS**: Environmental, Social, Health and Safety

**ESMF** : Environmental and Social Management Framework

**ESMP** : Environmental and Social Management Plan

**ESS** : Environmental and Social Standard

**GDCA** : General Directorate of Construction Affairs

GRM : Grievance Redress Mechanism

IFC : International Finance Corporation

LMP : Labor Management Procedure

**MoEUCC**: Ministry of Environment, Urbanization and Climate Change

NGO : Non-Governmental Organization
OGM : General Directorate of Forestry
OHS : Occupational Health and Safety
PCA : Preventive/Corrective Action

PDoEUCC : Provincial Directorate of Environment, Urbanization and Climate Change

PIU : Project Implementation Unit

PPE : Personal Protective Equipment

PPP : Pollution Prevention Plan

**PWWTP** : Package Wastewater Treatment Plant

RCA : Root Cause Analysis
RP : Resettlement Plan

SEA : Sexual Exploitation and Abuse
SEP : Stakeholder Engagement Plan

SH : Sexual Harassment

**TEDAŞ** : Türkiye Electricity Distribution Inc.

**TERRP**: Türkiye Earthquake Recovery and Reconstruction Project

**TMP**: Traffic Management Plan

WB : World Bank
WBG : World Bank Group
WMP : Waste Management Plan
WSWW : Water Supply and Wastewater
WWTP : Wastewater Treatment Plant





#### 1 Introduction

The World Bank (WB) is supporting the Ministry of Environment, Urbanization and Climate Change (MoEUCC) in implementing the Türkiye Earthquake Recovery and Reconstruction Project (TERRP). WB finances TERRP activities under Component 3, Rural Housing Reconstruction and Recovery, and Component 4.3, Project Management, Monitoring and Evaluation.

TERRP will overall support restoring access to essential municipal and health services and earthquake-resilient rural housing in selected provinces affected by the February 2023 earthquakes in Türkiye. The MoEUCC is implementing the Project activities for Components 3 and 4.3, in close collaboration with the Disaster and Emergency Management Presidency (AFAD). AFAD will carry out tasks as part of its ongoing organizational and legal mandates in collaboration with the MoEUCC.

Under the scope of this Environmental and Social Management Plan (ESMP), it is aimed to assess the possible negative environmental-social risks and impacts that may arise from the construction of a total of 58 rural houses in Central district of Elazığ province, and to minimize or completely eliminate these impacts. The destroyed or severely damaged houses and basic infrastructures in the selected villages/neighborhoods will be reconstructed in new settlement locations. The details regarding the villages, new settlements, number of rural houses to be reconstructed, etc. will be given in the following chapters of the plan. This Environmental and Social Management Plan (ESMP) also includes health and safety measures, stakeholder engagement activities to be carried out, and the establishment of a Grievance Redress Mechanism (GRM). Finally, the ESMP outlines the responsibilities of relevant parties within the sub-project scope.





#### 2 The Rationale of the Environmental and Social Management Plan

In accordance with the Environmental and Social Framework (ESMF) of the TERRP, the Project Implementation Unit (PIU) operating within the General Directorate of Construction Affairs (GDCA) of MoEUCC has completed the Environmental and Social (E&S) Screening, and the Screening Studies are given in Appendix 2. The project's E&S Risk Rating was assessed as "moderate", based on anticipated environmental and social risks and impacts. Following the guidelines outlined in the ESMF, and based on the findings of the E&S screening and subsequent assessment, the project-level ESMP needed to be customized for the subproject namely "Elazığ Province Central District Rural Housing Project (58 Rural Houses)" (hereinafter "the Project").

EMAY International Engineering and Consultancy Inc. (EMAY) under its assignment "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing" with the name of the 'supervision consultant' took the responsibility to prepare the ESMP in Annex-4 of the Environmental and Social Management Framework for the subproject. In the course of these studies, EMAY visited the subproject sites in Central District on 02-03-04/02/2024 having meetings with the muhktars of the relevant villages/neighborhoods (Cip, Çamyatağı, Salkaya, Alatarla, Alaca,Altınkuşak, Poyraz, Üçağaç, Yukarıçakmak and Alpavut) and examine the insitu and new locations where the rural houses to be constructed.

It is the responsibility of the Contractor to regularly review, revise, and update the ESMP according to its planning and decisions. The ESMP contains site-specific measures developed based on the available information. During the planning and construction phases, adjustments to construction methods may occur due to feasibility and technical considerations. In the event of such changes in the Contractor's construction approach, the ESMP must be reviewed and revised by the Contractor and then submitted to EMAY for review. The Contractor must ensure that the ESMP accurately reflects site conditions and should proactively incorporate any revisions into the plan. The Waste Management Plan, Pollution Prevention Plan, Labor Management Plan, OHS Plan, Community Health, Safety and Traffic Management Plan, etc., will be prepared by the Contractor, reviewed by EMAY and submitted to the PIU for approval, including the company's opinions.





#### 3 Legal and Institutional Framework

The TERRP's ESMF provides a comprehensive overview of the legal and institutional framework in Section 3. This section outlines Türkiye's legal framework, followed by a brief explanation of the national environmental and social assessment regulatory process, including permitting, and identifies any disparities between the WB Environmental and Social Standards (ESSs) and legislative requirements.

During the development of the ESMP, both the WB ESSs and the national legislation applied for Project-related activities are taken into account. Feasible and effective mitigation measures are then documented based on these considerations.

The ESMF for the Project (both English and Turkish) could be found at the following website: <a href="https://kadiyap.csb.gov.tr/cevresel-ve-sosyal-proje-dokumanlari-i-110820">https://kadiyap.csb.gov.tr/cevresel-ve-sosyal-proje-dokumanlari-i-110820</a>





#### 4 Project Description

Within the scope of the Project, a total of **58 rural houses** will be constructed in in-situ and new locations in Cip, Çamyatağı, Salkaya, Alatarla, Alaca, Altınkuşak, Poyraz, Üçağaç, Yukarıçakmak and Alpavut Villages in Central district of Elazığ province. The details regarding the villages/neighborhoods, number of houses and locations are summarized in Table 1, and in the following sub-titles.

Table 1. Characteristics of the Project's Parcels

District	Settlement	Number of Rural Houses	In-Situ /New Location	Location (lot/parcel)	Area of the parcel (m²)	Registry Status of the New Location <sup>1</sup>
		1	In-Situ	101/11	4,962.04	Field
		1	In-Situ	160/21	282.60	Plot
		1	In-Situ	169/3	294.85	Adobe house
		1	In-Situ	177/22	935.73	Dry Field
Central	Cip	1	In-Situ	105/18	2,934.69	Irrigated Field
		9	New	114/86	14,103.19	Raw Soil
		3	Location (14 houses	128/72	3,833.79	Raw Soil
		2	in total)	128/73	3,719.70	Raw Soil
	Resettlement Area Road within the Parcel		128/74	1,320.95	Raw Soil	
Central	Çamyatağı	13	New Location	105/298	22,761.41	Pastureland
Central	Salkaya	2	New Location	-	-	Raw Soil <sup>2</sup>
Central	Alatarla	1	In-Situ	102/38	1,235.53	Adobe house and plot
Central	Alaca	9	New Location	127/7	17,495.28	Dry Field
Central	Altınkuşak	3	New Location	0/1791	10,000	Raw Soil
Central	Poyraz	1	In-Situ	102/43	6,257.23	Irrigated Field
Central Üçağaç		1	New Location	107/140	63,031.22	Pastureland
	Üçağaç	1	New Location	111/1	75,684.72	Pastureland
	, , ,	1	In-Situ	115/1	2,833.03	Irrigated Field
		2	New	103/235	229,861.77	Pastureland

<sup>&</sup>lt;sup>1</sup> Source: General Directorate of Land Registry and Cadaster Official Website, https://parselsorgu.tkgm.gov.tr/

 $<sup>^2</sup>$  There is no registration on the database of the General Directorate of Land Registry and Cadaster, however, when the neighboring parcels are examined, it is considered to be a raw soil.





District	Settlement	Number of Rural Houses	In-Situ /New Location	Location (lot/parcel)	Area of the parcel (m²)	Registry Status of the New Location <sup>1</sup>
			Location			
Central	Yukarıçakmak	2	New Location	149/1	81,940.36	Pastureland
Central	Alpavut	1	New Location	102/1	6,550.28	Pastureland
Central	Alpavut	1	In-Situ	120/4	11,577.29	Dry Field
Central	Alpavut	1	In-Situ	109/13	42,958.21	Irrigated Field
	Total					

Non of the sub-projects will involve any risks of forced labor, child labor and other harmful forms of labor. Direct, contracted, local, and primary supply workers will be used in the construction process. Occupational health and safety (OHS) risks will be managed by the hierarchy of controls. All measures will be involved in OHS Plan. With the measures to be taken during both the construction and operation phases, there will be no moving out, and people's business/commercial/livelihood activities will not be disrupted. Nor will there be any foreseen adverse impacts on the vulnerable individuals or groups. Finally, the locals have given their consent to the parcels determined by AFAD for rural housing construction.

Water will be provided from the relevant villages for construction site office areas and from wells for construction site use, by obtaining the necessary official letters. An impermeable septic tank will be built for wastewater, and domestic wastewater will be collected here and conveyed to the Wastewater Treatment Plant by sewage trucks, with the agreement to be made with Elazığ Municipality or the Special Provincial Administration.

A temporary storage area will be created for solid waste that will be generated in construction office areas and construction sites, and they will be stored separately according to their types in this storage area. Domestic solid waste will be collected by the Special Provincial Administration. Other hazardous/non-hazardous wastes will be delivered to licensed recycling/disposal facilities.

For the rural houses to be built, the necessary permission will be obtained from the relevant electricity distribution company and the electricity of the houses will be supplied from the permitted power line. During the construction phase, generators will be used for the electricity needs. If there is a power line close to the the construction site, the relevant electricity distribution company will be contacted and electricity can be used from the power line after the necessary permissions are obtained.

#### 4.1 Cip Village

The sub-project includes the construction of 14 rural houses, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within parcels of 114/86 and 128/72-73-74 in Cip village, Central district. Moreover, there are also 5 rural houses that will be re-constructed <u>in-situ</u>. Within the scope of Cip Village, a total of 19 rural houses will be constructed as in-situ and new location. The owners of the parcels detailed in Table 1 have given their consent for the construction of new rural housing and will reside in these houses.

The parcels, close dwellings and facilities are shown in between Figure 1 and Figure 12 and the distances to the close dwellings and other facilities and features are given in between Table 2 and Table 7.







Figure 1. Satellite Image of Cip Village 114/86 and 128/72-73-74 Parcels

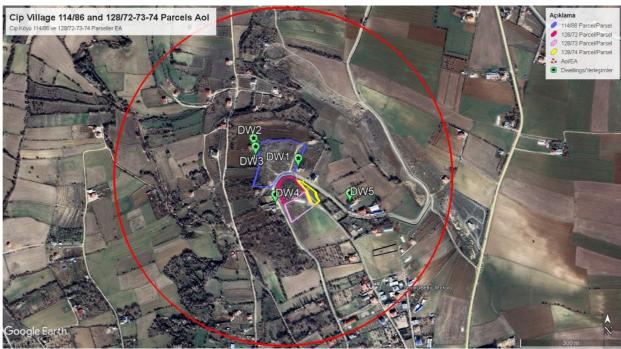


Figure 2. AoI of Cip Village 114/86 and 128/72-73-74 Parcels

Table 2. Distance to Sensitive Receptors (Cip Village 114/86 and 128/72-73-74 Parcels)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	4
DW2 (Dwelling-2)	7
DW3 (Dwelling-3)	9
DW4 (Dwelling-4)	23
DW5 (Dwelling-5)	86
DSI Irrigation Channel	At the border
Cip Village Center	1,000







Figure 3. Satelllite Image of Cip Village 101/11 Parcel



Figure 4. AoI of Cip Village 101/11 Parcel

Table 3. Distance to Sensitive Receptors (Cip Village 101/11 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
Mosque	52
DW1 (Dwelling-1)	61
DW2 (Dwelling-2)	64
DW3 (Dwelling-3)	103
Cip Village Center	1,756







Figure 5. Satelllite Image of Cip Village 160/21 Parcel



Figure 6. AoI of Cip Village 160/21 Parcel

Table 4. Distance to Sensitive Receptors (Cip Village 160/21 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
Village Road	2
DW1 (Dwelling-1)	14
DW2 (Dwelling-2)	21
DW3 (Dwelling-3)	25
DW4 (Dwelling-4)	29
Mosque-1	71
Cip Village Center	96
Mosque-2	342







Figure 7. Satelllite Image of Cip Village 169/3 Parcel



Figure 8. AoI of Cip Village 169/3 Parcel

Table 5. Distance to Sensitive Receptors (Cip Village 169/3 Parcel)

Dwelling / Facilities / Features	Air Distance (m)		
Village Road	2		
DW1 (Dwelling-1)	5		
DW2 (Dwelling-2)	8		
DW3 (Dwelling-3)	22		
Cip Village Center	30		
DW4 (Dwelling-4)	36		
Mosque-1	97		
Mosque-2	286		







Figure 9. Satelllite Image of Cip Village 177/22 Parcel



Figure 10. AoI of Cip Village 177/22 Parcel

Table 6. Distance to Sensitive Receptors (Cip Village 177/22 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
D260 Highway	3
DW1 (Dwelling-1)	8
DW2 (Dwelling-2)	20
DW3 (Dwelling-3)	41
Village Road	68
Cip Village Center	122
Mosque-1	127
Mosque-2	304







Figure 11. Satelllite Image of Cip Village 105/18 Parcel



Figure 12. AoI of Cip Village 105/18 Parcel

Table 7. Distance to Sensitive Receptors (Cip Village 105/18 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
Village Road	4
DW1 (Dwelling-1)	12
DW2 (Dwelling-2)	13
DW4 (Dwelling-4)	19
DW3 (Dwelling-3)	65
D260 Highway	275
Cip Village Center	931





#### 4.2 Çamyatağı Village

The sub-project includes the construction of 13 rural houses, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within parcels of 105/298 in Çamyatağı village, Central district.

The parcels, close dwellings and facilities are shown in Figure 13 and Figure 14 and the distances to the close dwellings and other facilities and features are given in Table 8.



Figure 13. Satelllite Image of Çamyatağı Village 105/298 Parcel

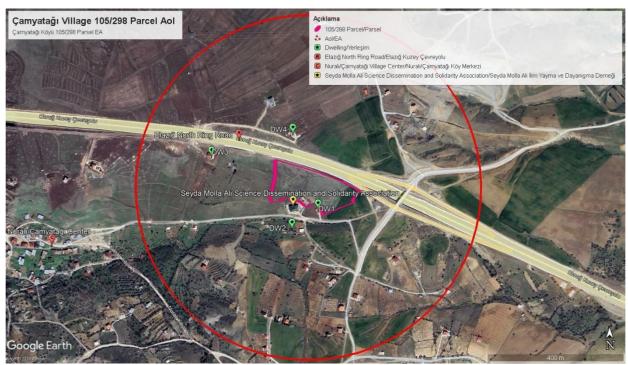


Figure 14. AoI of Çamyatağı Village 105/298 Parcel





Table 9 Distances to Consitive Decente	rs (Camvatağı Village 105/298 Parcel)
Table 8. Distances to Sensitive Recepto	rs (Camyatagi village 105/298 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
Seyda Molla Ali Science Dissemination and Solidarity	2
Association <sup>3</sup>	3
DW1 (Dwelling-1)	5
Elazığ North Ring Road	7
DW2 (Dwelling-2)	70
DW3 (Dwelling-3)	185
Çamyatağı Village Center	635

#### 4.3 Salkaya Village

The sub-project includes the construction of two (2) rural houses in a <u>new settlement</u> by the connection of the road and infrastructure to the earthquake houses built nearby in Salkaya village, Central district. The Salkaya Village parcel is already a resettlement area, and two (2) more houses will be built in this area. Two of the right holders have consent and these houses will be used by the owners themselves. There are new houses in the immediate vicinity but no one lives in these houses yet.

The parcels, close dwellings and facilities are shown in Figure 15 and Figure 16 and the distances to the close dwellings and other facilities and features are given in Table 9.



Figure 15. Satelllite Image of Salkaya Village Resettlement Area

<sup>&</sup>lt;sup>3</sup> There is an Non-Governmental Organization (NGO) close to the construction area named as "Seyda Molla Ali İlim Yayma ve Yardımlaşma Derneği", which provides dormitory service to ten (10) male children aged between 10 and 15.







Figure 16. AoI of Salkaya Village Resettlement Area

Table 9. Distances to Sensitive Receptors (Salkaya Village)

Dwelling / Facilities / Features	Air Distance (m)
Creek	75
DW1 (Dwelling-1)	165
DW2 (Dwelling-2)	230
Salkaya Village Center	1,622

#### 4.4 Alatarla Village

The sub-project includes the reconstruction of one (1) rural house <u>in-situ</u> on 102/38 parcel in Alatarla Village, Central district. The necessary connections to the road and infrastructure will be made. The owner of the parcel has given his consent for the construction of new rural housing and will reside in this house

The parcels, close dwellings and facilities are shown in Figure 17 and Figure 18 and the distances to the close dwellings and other facilities and features are given in Table 10.







Figure 17. Satelllite Image of Alatarla Village 102/38 Parcel



Figure 18. AoI of Alatarla Village 102/38 Parcel

Table 10. Distances to Sensitive Receptors (Alatarla Village 102/38 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	9
DW2 (Dwelling-2)	114
DW3 (Dwelling-3)	68
DW4 (Dwelling-4)	84
Alatarla Village Center	320





#### 4.5 Altınkuşak Village

The sub-project includes the construction of three (3) rural houses, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within 1791 parcel in Altınkuşak village, Central district.

The parcels, close dwellings and facilities are shown in Figure 19 and Figure 20 and the distances to the close dwellings and other facilities and features are given in Table 11.

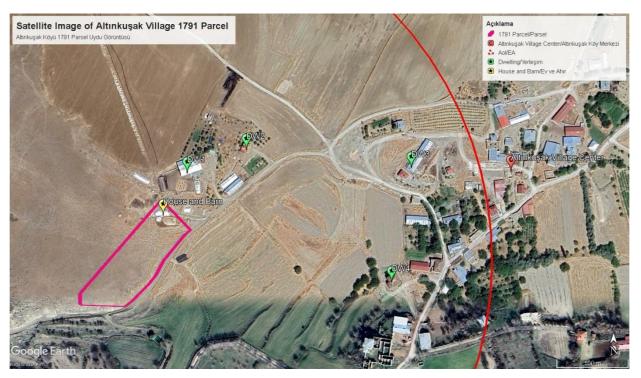


Figure 19. Satellite Image of Altınkuşak Village 1791 Parcel

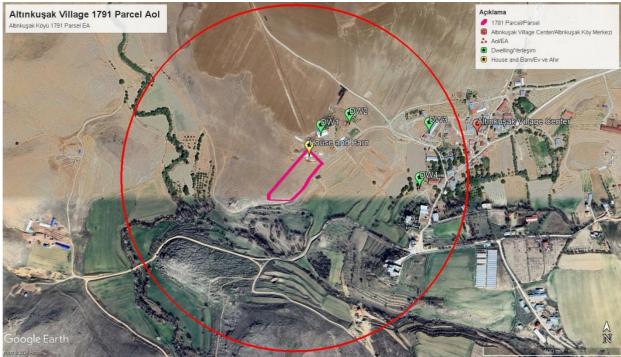


Figure 20. AoI of Altınkuşak Village 1791 Parcel





Table 11. Distances to Sensitive Receptors (Altınkuşak Village 1791 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	50
DW2 (Dwelling-2)	126
DW3 (Dwelling-3)	300
DW4 (Dwelling-4)	284
House and Barn	Within the parcel <sup>4</sup>
Altınkuşak Village Center	456

#### 4.6 Alaca Village

The sub-project includes the construction of nine (9) rural houses, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within 127/7 parcel in Alaca village, Central district.

The parcels, close dwellings and facilities are shown in Figure 21 and Figure 22 and the distances to the close dwellings and other facilities and features are given in Table 12.



Figure 21. Satellite Image of Alaca Village 127/7 Parcel

<sup>&</sup>lt;sup>4</sup> No occupants are residing or earning income in the subproject parcels except for the one in Altınkuşak Village, where a family with two children under the age of 7. However, this family will keep living in this parcel and in their house. There is a fence around their house and barn that sets the boundaries between private property and construction sites. There are cultivation lands around the parcel as well. However, during the interview with the Mukhtar of the village, landowners and the family living in the parcel gave their explicit consent to the implementation of the subproject. This house will be taken into consideration when preparing the site plan during the construction phase.







Figure 22. AoI of Alaca Village 127/7 Parcel

Table 12. Distances to Sensitive Receptors (Alaca Village 127/7 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	9
DW2 (Dwelling-2)	114
DW3 (Dwelling-3)	68
DW4 (Dwelling-4)	84
Alaca Village Center	320

#### 4.7 Poyraz Village

The sub-project includes the reconstruction of one (1) rural house  $\underline{\text{in-situ}}$  on 102/43 parcel in Poyraz Village, Central district. The necessary connections to the road and the infrastructure will be made.

The parcels, close dwellings and facilities are shown in Figure 23 and Figure 24 and the distances to the close dwellings and other facilities and features are given in Table 13.







Figure 23. Satellite Image of Poyraz Village 102/43 Parcel



Figure 24. AoI of Poyraz Village 102/43 Parcel

Table 13. Distances to Sensitive Receptors (Poyraz Village 102/43 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	15
DW2 (Dwelling-2)	45
DW3 (Dwelling-3)	61
DW4 (Dwelling-4)	133
Poyraz Village Center	826





#### 4.8 Üçağaç Village

The sub-project includes the construction of four (4) rural houses, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within parcels of 107/140, 111/1 and 103/235 in Üçağaç village, Central district. Moreover, there are also one (1) rural house that will be re-constructed <u>in-situ</u> in 115/1 parcel. Within the scope of Üçağaç Village, a total of five (5) rural houses will be constructed as in-situ and new location. The owners of the parcels detailed in Table 1 have given their consent for the construction of new rural housing and will reside in these houses.

The parcels, close dwellings and facilities are shown in between Figure 25 and Figure 32 for Üçağaç and the distances to the close dwellings and other facilities and features are given in between Table 14 and Table 17.

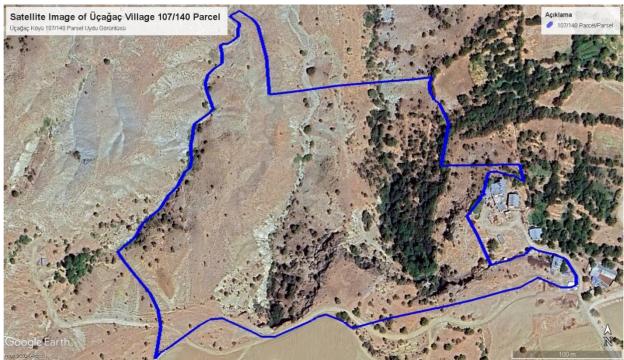


Figure 25. Satellite Image of Üçağaç Village 107/140 Parcel





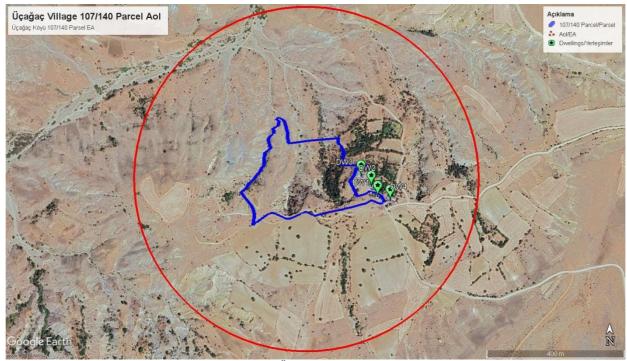


Figure 26. AoI of Üçağaç Village 107/140 Parcel

Table 14. Distances to Sensitive Receptors (Üçağaç Village 107/140 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	At the border
DW2 (Dwelling-2)	7
DW3 (Dwelling-3)	10
DW4 (Dwelling-4)	25
Üçağaç Village Center	3,290



Figure 27. Satellite Image of Üçağaç Village 115/1 Parcel

TERRP
DESSUP-03 Elazığ Province Central District Rural Housing Project / ESMP Cluster-3







Figure 28. AoI of Üçağaç Village 115/1 Parcel

Table 15. Distances to Sensitive Receptors (Üçağaç Village 115/1 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	121
DW2 (Dwelling-2)	129
DW3 (Dwelling-3)	189
Üçağaç Village Center	232

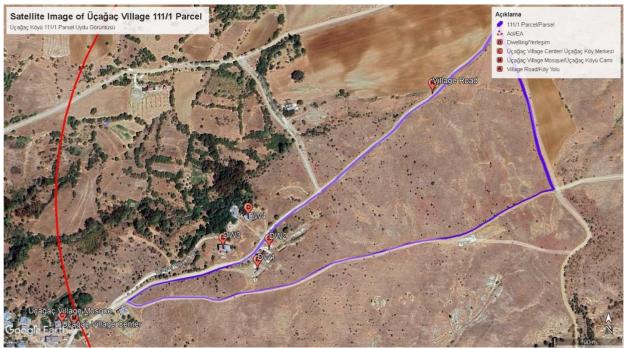


Figure 29. Satellite Image of Üçağaç Village 111/1 Parcel





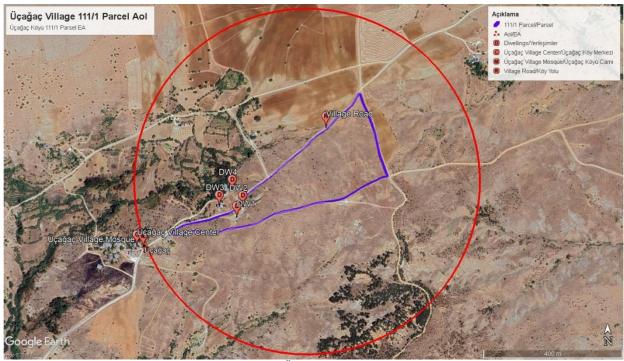


Figure 30. AoI of Üçağaç Village 111/1 Parcel

Table 16. Distances to Sensitive Receptors (Üçağaç Village 111/1 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	At the border
DW2 (Dwelling-2)	At the border
DW3 (Dwelling-3)	42
DW4 (Dwelling-4)	43
Üçağaç Village Center	171

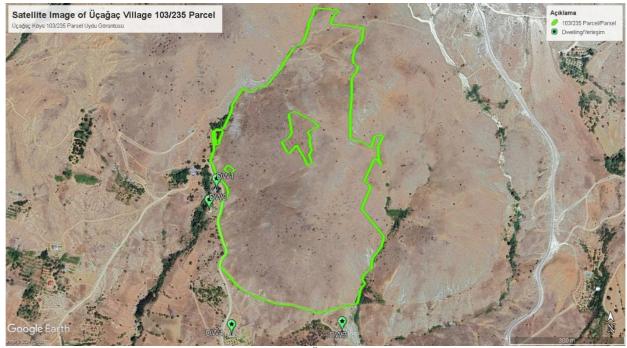


Figure 31. Satellite Image of Üçağaç Village 103/235 Parcel





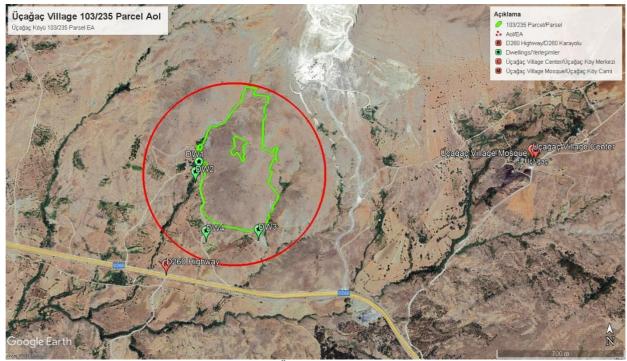


Figure 32. AoI of Üçağaç Village 103/235 Parcel

Table 17. Distances to Sensitive Receptors (Üçağaç Village 103/235 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	23
DW2 (Dwelling-2)	33
DW3 (Dwelling-3)	51
DW4 (Dwelling-4)	107
Üçağaç Village Center	1,333
D260 Highway	323

#### 4.9 Yukarıçakmak Village

The sub-project includes the reconstruction of two (2) rural houses  $\underline{\text{in-situ}}$  on 149/1 parcel in Yukarıçakmak Village, Central district. The necessary connections to the road and the infrastructure will be made.

The parcels, close dwellings and facilities are shown in Figure 33 and Figure 34 and the distances to the close dwellings and other facilities and features are given in Table 18.







Figure 33. Satellite Image of Yukarıçakmak Village 149/1 Parcel

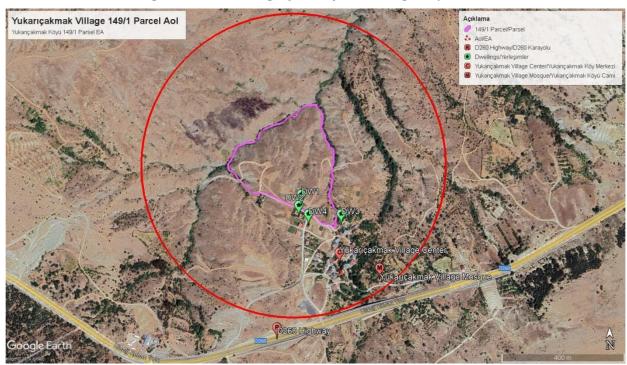


Figure 34. AoI of Yukarıçakmak Village 149/1 Parcel

Table 18. Distances to Sensitive Receptors (Yukarıçakmak Village 149/1 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	In the parcel
DW2 (Dwelling-2)	At the border of the parcel
DW3 (Dwelling-3)	26
DW4 (Dwelling-4)	27
Yukarıçakmak Village Center	132
D260 Highway	283





#### 4.10 Alpavut Village

The sub-project includes the construction of one (1) rural house, and construction of roads and pavement within the parcel, the installation of street lighting, sewerage and drinking water network and the impermeable septic tank on a <u>new location</u> within 102/1 parcel in Alpavut village, Central district. Moreover, there are also two (2) rural house that will be re-constructed <u>in-situ</u> on 120/4 (1 rural house) and 109/13 (1 rural house) parcels. Within the scope of Alpavut Village, a total of three (3) rural houses will be constructed as in-situ and new location. The owners of the parcels detailed in Table 1 have given their consent for the construction of new rural housing and will reside in these houses.

The parcels, close dwellings and facilities are shown in between Figure 35 and Figure 40 for Alpavut village and the distances to the close dwellings and other facilities and features are given in between Table 19 and Table 21.

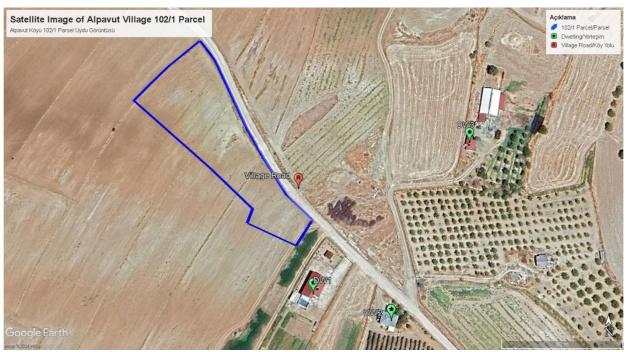


Figure 35. Satellite Image of Alpavut Village 102/1 Parcel





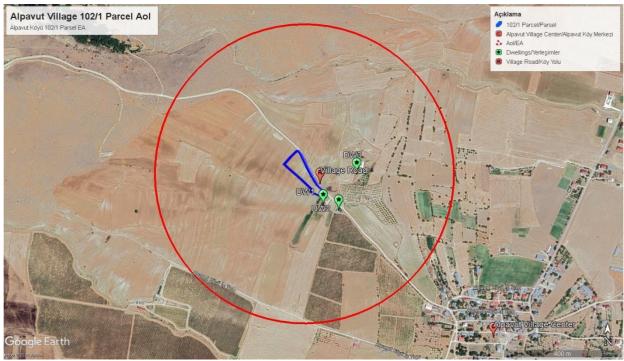


Figure 36. AoI of Alpavut Village 102/1 Parcel

Table 19. Distances to Sensitive Receptors (Alpavut Village 102/1 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-1)	23
DW2 (Dwelling-2)	76
DW3 (Dwelling-3)	125
Village Road	9
Alpavut Village Center	760

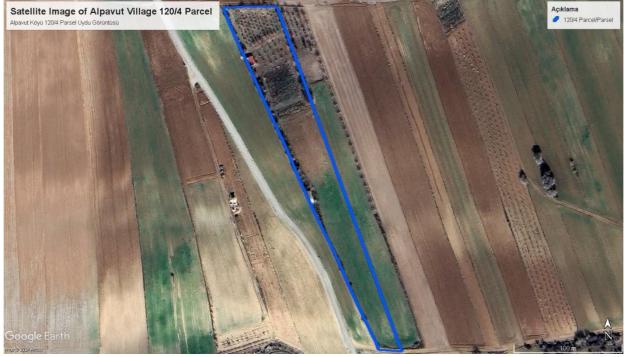


Figure 37. Satellite Image of Alpavut Village 120/4 Parcel







Figure 38. AoI of Alpavut Village 120/4 Parcel

Table 20. Distances to Sensitive Receptors (Alpavut Village 120/4 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
DW1 (Dwelling-2)	58
DW2 (Dwelling-3)	336
Alpavut Village Center	1,264



Figure 39. Satellite Image of Alpavut Village 109/13 Parcel







Figure 40. AoI of Alpavut Village 109/13 Parcel

Table 21. Distances to Sensitive Receptors (Alpavut Village 109/13 Parcel)

Dwelling / Facilities / Features	Air Distance (m)
Irrigation Channel	At the Border
DW1 (Dwelling-1)	26
DW2 (Dwelling-2)	63
DW3 (Dwelling-3)	32
Alpavut Village Center	3,164

#### **4.11 Project Characteristics**

The features regarding the houses to be constructed and the awarded Contractor are listed as follows:

- The rural houses to be constructed will cover an area of 105.0525 m<sup>2</sup>, and the each house will have a 14.04 m<sup>2</sup> veranda.
- The rural houses will be concrete with 3 bedrooms.
- The number of workers of the Contractor are estimated to be maximum 200.
- The estimated duration for the completion of the construction is 10 months.
- Settlement plans prepared for each new location have been approved by MoEUCC; however, they might be revised, if deemed necessary.
- There will not be any construction of a concrete plant within the scope of the Project. The concrete need for the construction of the rural houses will be procured from the nearest licensed facility.

  The nearest concrete plant is approximately 10 km to the construction areas in the villages where the rural houses will be built.
- Wastewater will be collected in the impermeable septic tanks in both the work site and resettlement area. The more detailed information related to the subproject is given in Screening Form in Appendix 2.





## 5 Information Activities and Stakeholder Engagement for ESMP

This section will be prepared after the Public Engagement Meeting.





#### 6 Environmental and Social Management Plan

The Table 7 below outlines the Environmental and Social Management Plan (ESMP), which delineates the requisite measures for the construction Contractor to adhere to during Project activities. This plan also encompasses foreseen environmental and social risks and impacts specific to the sub-project, along with recommended mitigation measures. It provides details on the stages where these risks and impacts are expected, indicators within the monitoring system, monitoring frequency, assigned responsibilities, and estimated costs. The ESMP thoroughly articulates the strategies to address these risks and impacts throughout the project timeline.

EMAY will oversee the implementation of specified measures, the Contractor's implementation system, organizational structure, site-specific Environmental and Social (E&S) management plans, their efficacy, and the monitoring plan to be enforced by the Contractor. The Contractor will be subject to supervision to establish an effective system for managing and monitoring E&S concerns related to sub-project activities. Besides, the Contractor will review the ESMP prepared by the Consultant and commit to implement it or prepare the C-ESMP, if needed. The Contractor will also prepare sub-management plans, e.g. Waste Management Plan, Pollution Prevention Plan, Labor Management Plan, OHS Plan and Community Health, Safety and Traffic Mangement Plan, etc. and submit them to the consultant for review. The consultant in turn will send these documents with his/her comments to the PIU for approval.





Table 22. Environmental and Social Management Plan

			Phase	;		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
General for All Constru	iction Works									
Environmental and Social Management: Inadequate management of environmental and social risks and impacts	The Contractor will prepare and submit for approval and subsequently implement its Contractor ESMP (C-ESMP). The C-ESMP should be submitted prior to the commencement of construction works and no construction activities will be carried out under the Project until approval of the C-ESMP. The C-ESMP will include at least the following site-specific management plans where the necessary outlines are given in the ESMF of TERRP:  Occupational Health and Safety (OHS) Plan including Risk Assessment Report and Emergency Response Plan (ERP)  Community Health, Safety (CHS) and Traffic Management Plan (can be prepared separately as CHS Management Plan and Traffic Management Plan (TMP))  Waste Management Plan (WMP)  Pollution Prevention Plan (PPP)  Chance Find Procedure (CFP)  Water Supply and Wastewater (WSWW) Management Plan  Labor Management Plan to be prepared in accordance with project LMP  Grievance Redress Mechanism (GRM)	x	x		All sub- management plans are approved prior to construction and implemented throughout the construction period.		x		Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





			Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	At least one full-time Class A/B OHS Specialist, one full-time Environmental Specialist and one full-time Social Specialist are employed before starting construction work. The Contractor will submit the resumes of those specialists for approval. These specialists should be present at the site throughout the construction period.	x	x		Relevant E&S staff is mobilized and maintained throughout the construction period		x		Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction
	The Contractor will prepare a Training Program and provide training to all its workers, before the start working on site, on basic environmental, social, health and safety (ESHS) risks associated with the proposed construction works and the workers' responsibility. The Training Program will be repeated on a monthly basis. The Contractor's monthly training program will also cover topics related to Code of Conduct such as sexual harassment particularly towards women and children, violence, including sexual and/or gender-based violence and respectful attitudes while interacting with the local community.	x	x		Training Program approved and all relevant staffed are trained.  Training records		x		Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction
	All necessary permits will be obtained and the installation of facilities is ensured before the construction. The permits which may be needed for the Project but not limited to the followings:  • Official letters/permits from relevant governmental agencies  • Official letters/permits from relevant governmental agencies (DSI 9th Regional Directorate for the DSI irrigation channels near the Cip Village 114/86 and 128/72-73-74 parcels and Alpavut Village 109/13 parcel (if necessary), etc.)  • Official letters/permits from Türkiye Electricity	x			Permissions and relevant official letters	the	e befo start struct	of	Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		]	Phase			Fr	equer	ncy		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	Distribution Inc. (TEDA\$) for the electric poles within the related parcels (with electric poles) if the relocation of the poles are essential.  Land use permits (if necessary)  Waste disposal permits from the Municipality  Environmental permits (if necessary)  Water usage permits from the DSI (if necessary)  Waste disposal protocols with licensed disposal facilities and/or Municipalities  Excavation waste disposal protocols with municipalities  Electricity connection and usage permits									
Air Quality: Dust generation around the Project site due to construction activities, and emissions from construction equipment and vehicles	Dust from exposed work sites will be minimized by applying water on the ground regularly during the dry season.  Construction debris will be kept in a controlled area and sprayed with water to reduce debris dust.  Stockpile of aggregate materials will be kept covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals.  In case of pneumatic drilling during excavation, dust will be suppressed by ongoing water spraying and/or construction dust screen enclosures at the site.  The surrounding environment such as roads, etc. will be kept free of debris to minimize dust.  The construction/waste materials at the site will not be burned.  Construction vehicles will not be run idle on construction sites.  The operation hours of generators/machines/equipment/vehicles will be reduced as appropriate.  Vehicle speed will be controlled when driving through community		x		Visual inspection of air quality control measures  Records of maintenance  Records of complaints	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		]	Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	areas is unavoidable so that dust dispersion from vehicle transport is minimized.									
	The trucks that transport materials will be covered to decrease dust emissions.									
	Since there are dwellings adjacent or close to the construction site in the villages covered by this ESMP, protective barriers will be installed to prevent the dwellings from dust if necessary. Dust measurements will be conducted by an authorized laboratory accordingly if any grievance regarding dust generation is received from the nearest receptors. If measured levels are above limit values, mitigation measures will be enhanced in this respect, i.e., increasing wet suppression / watering activities, applying non-toxic chemicals, further reducing speed/traffic.									





		]	Phase	;		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Noise: Noise generation due to construction vehicles and equipment	The construction activities will be limited to the restricted times defined in the national legislation and plan activities in consultation with nearby communities so that the noisiest activities are undertaken during periods that will result in the least disturbance. During operation, the engine covers of generators, air compressors, and other powered mechanical equipment will be closed, and equipment placed as far as away from residential/community areas as possible.  All equipment will be maintained to keep it in good working order by manufacturing maintenance procedures and installing acoustic enclosures around generators to reduce noise levels.  When needed and feasible, noise-control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting of fast-growing trees) will be used.  Unnecessary use of alarms, horns and sirens will be avoided.  Project transportation through community areas will be minimized.  A buffer zone (such as open spaces, rows of trees or vegetated areas) between the project site and residential areas will be created to lessen the impact of noise to the living quarters.  Noise measurements will be conducted if any grievance regarding noise generation is received from the nearest receptors. If measured levels are above limit values, mitigation measures will be enhanced in this respect, i.e., installing acoustic barriers for mechanical equipment, limiting the hours of operation for specific pieces of equipment or operations, etc.		X		Visual/audial inspection of noise control measures  Records of complaints	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		]	Phase	9		Fr	equen	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Occupational Health and Safety: OHS-related risks due to unsafe practices and hazards at work sites such as work at height, rotating and moving equipment,	<ul> <li>When planning activities, following steps should be considered with OHS specialist to avoid people getting injured:</li> <li>Construction place: Are there any hazards that could be removed or should warn people about?</li> <li>The people who will be taking part in construction: Do the participants have adequate skill and physical fitness to perform their work safely?</li> <li>The equipment: Are there checks you could do to make sure that the equipment is in good working order? Do people need any particular skills or knowledge to enable them to use it safely?</li> <li>Electricity safety: Do any electricity good practices such as the use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measures, awareness on identifying burning smells from wires, etc. apply at the site? Is the worksite stocked with voltage detectors, clamp meters and receptacle testers?</li> </ul>	x			Visual inspection Employee records Equipment records		x		Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction
electrical safety, working with hazardous materials, etc.	Appropriate signposting of the construction sites will inform workers of key rules and regulations to follow.  The contractor's OHS specialist will provide a brief daily toolbox talk to the construction workers on OHS risks associated with the construction activity that will be carried out on that particular day that particular day.  The Contractor will ensure a safe working environment for the workers and before construction activities will supply appropriate Personal Protective Equipment (PPE) in line with international best practice and Turkish Legislation (hard hats, gloves, dust masks, goggles, harnesses and safety boots, etc.).  All activities will be implemented in line with both the Law on Occupational Health and Safety (Official Gazette No:28339, dated		X		Visual inspection of control measures  OHS records  Employee records  Incident statistics and records  Records of	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		]	Phase			Fr	equer	ıcy		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	June 30, 2012) and its relevant regulations and also with the WBG EHS Guidelines.  The Contractor will immediately notify the MoEUCC PIU (through supervision consultants) about any serious incident which may have significant adverse effects on the environment, the affected communities, the public or workers. Then, MoEUCC will notify the WB about any serious incident in 48 hours and send an incident investigation report together with the root cause analysis and corrective action plan in 30 days to the WB.				workers' complaints					
	The worksite will be kept clean and free of debris on a daily basis. First aid kit with bandages, antibiotic cream, etc. will be provided at the construction sites, and controlled regularly (monthly).  Following safety guidelines will be ensured for the storage, transport, and distribution of hazardous materials aiming to minimize the potential for misuse, spills, and accidental human exposure.  Corrosive fluids and other toxic materials will be kept in properly sealed containers for collection and disposal in properly secured areas.  It will be ensured that structural openings are covered/protected adequately.  Loose or light material that is stored on roofs or open floors will be secured.  It will be ensured keeping hoses, power cords, welding leads, etc. from laying in heavily travelled walkways or areas.  During heavy rains or emergencies of any kind, all work will be suspended.  The below measures will be followed for construction involving work at height:		x		Visual inspection of control measures  OHS records  Employee records  Incident statistics and records  Records of workers' complaints  Training records of workers for specific tasks such as working at height, working	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





			Phase			Fre	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	Do as much work as possible from the ground.				with electric, etc.					
	<ul> <li>Do not allow people with the following personal risks to perform work at height tasks: eyesight/balance problem; certain chronic diseases – such as osteoporosis, diabetes, arthritis or Parkinson's disease; certain medications – sleeping pills, tranquilizers, blood pressure medication or antidepressants; recent history of falls – having had a fall within the last 12 months, etc.</li> </ul>									
	<ul> <li>Only allow people with sufficient skills, knowledge and experience to perform the task.</li> </ul>									
	<ul> <li>Check that the place (e.g., a roof) where work at height is to be undertaken is safe.</li> </ul>									
	<ul> <li>Take precautions when working on or near fragile surfaces.</li> </ul>									
	<ul> <li>Clean up oil, grease, paint, and dirt immediately to prevent slipping; and</li> </ul>									
	<ul> <li>Provide fall protection measures e.g. safety harness, and simple scaffolding/guard rail for working at height.</li> </ul>									
	The contractor will hire trained operators for the safe operation of specialized vehicles such as forklifts, including safe loading and unloading.									
	Moving equipment with restricted rear visibility is outfitted with audible backup alarms. A flagman will be provided to each moving equipment operator to guide the movement of equipment.				Visual inspection of control measures				Contractor (implementation)	
	The contractor will mark all energized electrical devices and lines with warning signs. The contractor will check all electrical cords, cables, and hand power tools for frayed or exposed cords and follow manufacturer recommendations for the maximum permitted operating voltage of the portable hand tools. There must be a		X		OHS records Employee records	X			Supervision Consultant (supervision)	Included in the cost of construction
	leakage current relay in electrical panels.				r9				(Super vision)	





		]	Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	Both trainings and incidents (fatalities, lost time incidents, any significant events including spills, fire, etc.) including near-misses will be recorded.  There will be fire extinguishing equipment in sufficient numbers and ready for use in the site and camping area.				Incident statistics and records Records of workers' complaints					
Community Health and Safety: Community health and safety risks associated with construction activities including traffic and road-related risks (such as risks to the population due to inadequate construction and traffic management) from increased traffic volume and movement of heavyduty vehicles	The construction area will be surrounded by rope or a similar material and material stocks/storage areas will be kept away from the public. Warning signs will be posted, including in unsafe areas. Children will not be allowed to play in construction areas.  All earth borrow-pits will be filled in once construction is completed to avoid standing water, water-borne diseases and possible drowning.  The driving speed of vehicles will be controlled particularly when passing through a community or nearby school, children park, health center or other sensitive areas.  If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours.  A site-specific Traffic Management Plan should be prepared for Çamyatağı village where the Non-Governmental Organization (NGO) "Seyda Molla Ali Science Dissemination and Solidarity Association" are near to the construction site and used by the children.  The house and barn in Altınkuşak Village 1791 parcel will be taken into consideration when preparing the site plan during the construction phase.  The project site will be illuminated during the night.  The surrounding construction area will be kept clean, without waste disposed of there. The broken glass should be cleaned immediately to avoid any fires.		x		Visual inspection of control measures  Traffic accident records  Records of complaints	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





			Phase			Fr	equei	ncy		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	Safety guidelines will be followed for transportation of hazardous materials to the site aiming to minimize the potential for spills and accidental human exposure due to traffic accidents.									
	Regular maintenance of vehicles will be carried out to minimize potentially serious accidents caused by equipment malfunction or premature failure.									
	The local people will be informed about the work to be carried out, including the measures taken regarding communicable diseases relating to labor influx and post-disaster context (i.e., COVID-19 virus), using appropriate communication tools and methods (e.g., online/virtual and/or physically) in areas accessible to all stakeholders (including work sites).									
	In case of any epidemic or pandemic / communicable disease, including COVID-19, the guidance, guidelines, and recommendations to be provided by the Ministry of Health, the Ministry of Family and Social Services, the Ministry of Labor and Social Security, and the World Health Organization will be followed, and all relevant measures will be taken for both employees and workplaces in terms of OHS and CHS. In addition, all construction works will follow the WB guidelines to minimize the risk of COVID-19 transmission during the execution of civil works.									
	Any traffic diversions should take into account the needs of disabled persons.									
	The Contractor will ensure the construction site is properly secured and construction-related traffic regulated properly (including proper route planning). This will include but not be limited to:									
	<ul> <li>Signposting, warnings, barriers, and traffic diversions: the site will be visible, and the public warned of all potential hazards.</li> </ul>									
	<ul> <li>Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe</li> </ul>									





			Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	<ul> <li>passages and crossings for pedestrians where construction traffic interferes.</li> <li>Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.</li> <li>Active traffic management by trained and visible staff at the site, if required for a safe and convenient passage for the public.</li> <li>The Consultant will train all Contractor staff on SEA/SH, Gender Equality and GBVH and explain the Code of Conduct in detail. All staff employed on the project will sign a written commitment to comply with the Code of Conduct. The sub-project will introduce a Code of Conduct for all staff working in the field and establish a Grievance Redress Mechanism for project staff.</li> </ul>									
Land Acquisition and Resettlement: Involuntary land acquisition and relocation of community members to new resettlement plots (if needed), including livelihood impacts	Since there is no land acquisition or expropriation for the Project's land use, there is no need to prepare a Resettlement Action Plan (RAP). However, the Contractor will conduct its activities in coordination with the supervision consultant.  WB ESS5 will be followed in relevance with the Turkish legislation.  There is no physical or economic displacement or resettlement envisaged within the scope of the Project. However, if any damage occurs to third-party assets, lands, crops, etc. during construction activities, the Contractor will compensate the damage according to WB ESS5 requirements, based on the "full replacement cost."  In addition, if any damage is done by the project activities to the animals in barns near the construction sites in the villages, it will be compensated by the Contractor.  The subproject in Altınkuşak Village does not involve any physical and/or economic displacement of people. No occupants are residing	x			Records of complaints  Records of compansation payments (if any)		x		Contractor (implementation)  Supervision Consultants (supervision, support to Contractor, if required)	Included in the cost of construction





			Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	or earning income in the subproject parcel except for the one in Altınkuşak Village, where a family with two children under the age of 7. However, this family will keep living in their house within the parcel. The house in Altınkuşak Village 1791 parcel will be taken into consideration when preparing the site plan during the construction phase.  Categories of stakeholders, particularly the vulnerable groups, will be monitored closely, and Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) will be implemented properly.									
Water Quality and Wastewater: Water pollution in nearby surface waters due to wastewater/waste generated at the construction area due to construction activities	The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and/or silt fences to prevent sediment from moving off-site and causing excessive turbidity in nearby surface waters.  Storage or disposal of generated wastewater on the site will be minimized.  Temporary or final waste disposal and wastewater discharge without treatment near/in surface waters (such as DSI irrigation channels near the Cip Village 114/86 and 128/72-73-74 parcels and Alpavut Village 109/13 parcel and creek in the AoI of Salkaya resettlement area) is strictly forbidden to prevent possible adverse impacts on surface waters. No soiled materials, solid wastes, toxic or hazardous materials will be stored in, poured into or thrown into water bodies/dry stream beds for dilution or disposal. The training on the waste management/ environmental awareness will definitely include and emphasis those issues.  The DSI irrigation channels near the Cip Village 114/86 and 128/72-73-74 parcels and Alpavut Village 109/13 parcel will be integrated into project design if feasible and appropriate. This integration includes the positioning of buildings and roads in the settlement plan. If deemed necessary and appropriate, various		x		Visual inspection of control measures  Septic tank effluent disposal records (if any)  Effluent quality measurement records (if any)  Records of complaints	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





			Phase			Frequency				
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	fences and similar barriers on the edges of the DSI channels will be placed, separating them from the project area. Construction vehicles and machinery will be washed only in areas where runoff will not pollute natural surface waters.  The wastewater will be deposited in an impermeable septic tank in accordance with "Regulation on Pit Opening Where Sewer System Construction is not Applicable" published in Official Gazette No: 13783 dated 19.03.1971. Toilets with temporary septic tank might be used for this purpose as well. Septic tank effluent will be removed periodically by sewage trucks, and disposal will be provided within the scope of the protocol to be made with the relevant municipality that has a licensed wastewater treatment plant (WWTP). The Protocol will be submitted to the PIU.  If feasible and applicable, wastewater collection system of the new rural houses can be connected to the existing sewage system for insitu construction projects and construction on the new location in Salkaya Village.  Activities will not affect the availability of water for drinking and hygienic purposes.  If feasible and applicable, the drinking water (tap water) system of the new rural houses can be connected to existing system for in-situ construction projects and construction on the new location in Salkaya Village without any damage.  The flow of natural waters will not be obstructed or diverted in a manner that could lead to drying of river beds or inundation of residential areas.  Concrete works will be separated from waterways, especially DSI channels (for Cip and Alpavut Villages) and creek (for Salkaya resettlement area), and mixing will be kept separate from drainage to waterways.									
Soil and Groundwater	The mitigation measures specified in the "Solid and Hazardous		X		Visual inspection	X			Contractor	Included in

### TERRP





			Phase	:		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Quality: Soil and groundwater pollution due to improper waste management and accidental spills, and soil erosion	Waste" section will be applied for proper waste management. Residual (left out) concrete in concrete mixers will not be allowed to wash out into the construction site, its vicinity, or access roads of construction sites. Related trainings will be provided to concrete mixer drivers.  Hazardous and dangerous chemicals and materials will be secured in a designated storage area to prevent spillage and tip-over.  Semi-used chemical-containing containers will have lids and lids will be closed while they are not in use.  In case of a spill of any hazardous material or hazardous wastes, spill prevention methods will be put in place in order to limit the exposure area. Workers who might intervene in such incidents will have relevant trainings on emergency response to spills.  Proper spill kits will be placed at appropriate locations in the construction area.  Construction will be scheduled during the dry season if appropriate. The length and steepness of slopes will be contoured and minimized.  Mulch, grasses or compacted soil will be used to stabilize exposed areas.  Topsoil will be quickly laid on the construction areas once work is completed, and these areas will be revegetated (grass, fast-growing plants/bushes/trees will be planted).  Channels and ditches will be designed for post-construction flows and line steep channels/slopes (e.g., with palm frowns, jute mats, etc.).				of control measures Incident records Training records Records of complaints				(implementation)  Supervision Consultant (supervision)	the cost of construction
Solid and Hazardous Waste: EHS risks due to inappropriate	Wastes will be managed in accordance with the waste management hierarchy (prevent, reduce, reuse, recycle, recover, dispose) and personnel will be trained to raise awareness on waste management. Waste will be segregated as recyclable, hazardous and non-		X		Visual inspection of control measures	x			Contractor (implementation)	Included in the cost of construction

### TERRP





			Phase			Fre	equen	су		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
management of waste generated due to construction activities (such as construction demolition wastes, hazardous waste, biodegradable waste, recyclable waste, etc.)	hazardous waste. Mineral construction wastes will be separated from general refuse, organic, liquid, and chemical wastes by on-site sorting and stored in appropriate containers. Non-hazardous wastes, inert and biodegradable wastes and also recyclables will be collected separately, and special attention will be paid to prevent hazardous wastes from mixing with other types of waste.  Collection, storage and transportation of waste to appropriately designated /controlled licensed disposal areas/facilities (such as excavation waste storage areas, sanitary landfills, recycling/recovery facilities, etc.) will be ensured. An official letter stating that these wastes will be accepted to licensed sites will be submitted to PIU.  Temporary waste storage area (to be established at the construction area) should be on impermeable ground, covered with a roof, and equipped with a suitable drainage system, proper spill kits and appropriate firefighting equipment. Wastes will be temporarily stored in this area in separate compartments (labeled with waste codes) according to their types in order not to react with each other. Except for medical wastes, hazardous wastes will be stored in the temporary waste storage area for a maximum of six (6) months and non-hazardous wastes for a maximum of one year. If one thousand kilograms or more per month hazardous waste is produced, a temporary storage permit should be obtained from the PDoEUCC. Excavation waste will be re-used for backfilling purposes as much as possible and recovery and other re-use options will be considered as appropriate. The excess excavation waste will be transported and disposed of separately by licensed transport vehicles to existing licensed excavation waste storage area(s), identified by the relevant governmental authorities, in the district/region. Municipal solid waste will be collected by the relevant municipality within the scope of the protocol to be made. Hazardous waste will be transferred to a licensed disposal facility				Waste generation and disposal records  Training records  Records of complaints				Supervision Consultant (supervision)	





			Phase	;		Frequency				
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	via licensed waste transportation companies, and recyclable wastes to a relevant licensed recycling/recovery facility. All protocols will be submitted to the PIU.									
	On-site storage of wastes prior to final disposal (including earth dug for foundations) should be at least 300 meters from rivers, streams, lakes and wetlands.									
	A secured area will be used for refueling and transfer of other toxic fluids distant from the settlement area (and at least 50 meters from drainage structures and 100 meters from important water bodies); ideally on a hard/non-porous surface.									
	Workers will be trained on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear and other protective equipment for protection in handling highly hazardous materials.									
	Small amounts of maintenance materials such as oily rags, oil filters, used oil, etc. will be collected and properly disposed of. Spent oils will never be disposed of on the ground and in water courses as they can contaminate soil and groundwater (including drinking water aquifers).									
	After each construction site is decommissioned, all debris and waste will be cleared.									
	All records of waste generation and disposal will be kept.									
	Whenever feasible, the Contractor will reuse and recycle appropriate and viable materials.									
	Temporarily storage on site of all hazardous or toxic substances will be in safe containers with labels detailing composition, properties, and usage information. The containers of hazardous substances will be placed in a leak-proof container to prevent spillage and leaching.									
	It is forbidden to use unapproved toxic materials including lead-based paints, un-bonded asbestos, etc.									





			Phase			Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Stakeholder Engagement and Grievance Mechanism: Construction-related complaints and temporary disruption to the local community including eligible property owners	The relevant measures suggested in the SEP will be taken and followed.  Early liaison and effective communication will be carried out with local people (including those with special needs) who may be affected by the work of the contractor and supervision consultant. A liaison program will be implemented during the construction process to make sure that the local environment is overseen and the well-being of residences is protected.  The supervision consultant will appoint a certain person(s) accountable for community liaison. This person(s) will engage with the community to provide the appropriate information and to be the first line of response to resolve issues of concern.  Grievance boxes will be located mostly at the separate (female and male) entrances of the mosques, and the entrances of condolence houses. The locations of the boxes should and will be accessible by all, especially by disadvantageous groups like women, children, and disabled people. Moreover, the needs, demands and complaints of local people and right holders will be collected both at the participation meetings and via a designated telephone number (i.e., via WhatsApp, direct massages and direct calls). Accordingly, the Project Grievance Redress Mechanism will be operated by the opening and closing of forms and complaints.  The names and contact telephone numbers and e-mail addresses of all site personnel with responsibilities for both supervision and management of the works will be displayed on the site hoarding.  Once planning consent is obtained, those who could potentially be affected by the construction of the rural houses will be informed via the mukhtar of the neighborhood/village. The consultation will be proceeded with the relevant E&S risk management instruments.  Outside normal working hours, security personnel will act as the main point of contact via a designated phone number. Security will		x		Records of complaints  Stakeholder engagement records		X		PIU (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		1	Phase	•		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	alert the person(s) accountable for liaison, if necessary (available 24 hours).  All workers will sign/commit to and be trained on the Code of Conduct to manage the potential adverse impacts on social cohesion and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks.  Received complaints will be logged, fully investigated, and responded to quickly, with some suitable advice about the action to be taken. Complaints will be registered and reported to the Contractor, Supervision Consultant and also PIU.  Public notice boards will be set at site entrances providing contact details of the person(s) accountable for liaison.									
Labor and Working Conditions: Risks associated with potential labor influx and presence of worker camps (such as accommodation conditions, child labor risks, gender-based violence and harassment, human rights risks, etc.) and other labor issues	The relevant measures in labor management plan to be prepared in accordance with project LMP will be followed.  Workers will be provided with information and documentation that is clear and understandable regarding their terms and conditions of employment such as their rights under national labor and employment law (which will include any applicable collective agreements).  Workers will be paid on a regular basis as required by national law and project LMP.  Workers will be provided with adequate periods of rest per week, annual holiday and sick, maternity and family leave, as required by national law and project LMP.  Workers will receive written notice of termination of employment and details of severance payments in a timely manner.  Workers will be employed on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship.  Project workers, including specific groups of workers, such as		x		Visual inspection of control measures  Health records  Employee records  Training records  Records of workers' complaints	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		]	Phase	:		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	women, people with disabilities, migrant workers and children of working age, will be provided with appropriate measures of protection and assistance in line with ESS2 of WB ESF. This process will be executed in accordance with the project LMP.									
	Workers are allowed to participate, or seek to participate, in workers' organizations and collective bargaining or alternative mechanisms.									
	Children under the minimum age of 18 will not be employed or engaged by the Contractor in connection with this sub-project.									
	Forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty, will not be used in connection with this sub-project.									
	A worker's GRM will be established by the Contractor at the construction site for all workers to raise workplace concerns. Contact details of the worker's GRM will be provided.									
	All workers will receive training about their rights under national labor and employment law and regarding the GRM upon recruitment and before the implementation of the work.									
	Code of Conduct will be shared with project workers during employment. All workers are obliged to comply with the Code of Conduct and sign relevant documentation at the time of employment.									
	Movement in and out of the construction site will be controlled, and unauthorized access to the site will be prevented.									
	Contractor will confirm that workers are fit for work before they start work, paying special attention to workers with underlying health issues or who may be otherwise at risk.									
	The Contractor will provide information and awareness of communicable diseases to workers.									
	The Contractor will arrange safe drinking water, adequate shower									





		]	Phase	9		Fr	equer	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
	and toilet facilities, accommodation, rest and dining areas for the workers. Electric tankless water heaters will not be used in showers. Central heating or storage water heater will be used for showers. The Contractor willwill provide a first aid kit with bandages, antibiotic cream, etc. or health care facilities, and willwill identify and train an adequate number of workers to provide first aid during medical emergencies.  The Contractor will comply with the provisions of Workers' Accommodation: Processes and Standards – A Guidance Note by International Finance Corporation (IFC) and European Bank for Reconstruction and Development (EBRD) for the conditions of camp sites/worker accommodation areas.									
Cultural Heritage: Chance find	Cultural or historic sites will not be disturbed.  Tangible or intangible values and heritage important to the local people will not be damaged.  If encountered with any cultural heritage/assets, chance find, during construction works (especially excavation and earthworks), the chance finds procedure (see Annex-9 of ESMF of the project) will be implemented.		X		Chance find records		x		Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction
Biodiversity: Potential risks to flora	If trees need to be cut in new resettlement plots, at least two times more than the trees cut will be planted at the site (preferably a site in the nearby region) identified by the General Directorate of Forestry, as per the commitment of the MoEUCC within the scope of the Project.	X			Tree plantation records			X	PIU	Included in the cost of construction
and fauna due to construction activities and improper waste management	There will be no cutting of trees or destruction of vegetation other than on construction site.  No hunting, capture of wildlife or collection of plants are allowed.		X		Visual inspection of control measures	X			Contractor (implementation)  Supervision Consultant	Included in the cost of construction





		]	Phase			Frequency		су		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
									(supervision)	
Specific to Rural Road	Construction Works									
	Road construction in unstable soils, steep slopes and nearby stream banks will be avoided. Additional measures (see the section below on slope protection) need to be applied where there is no alternatives for road alignments.	X			Design approval		ce dur desigr	·	PIU	
General Considerations	Placement of all construction waste (including earth cuts) to approved disposal sites (at >300 m from streams,) will be controlled.  Erosion control measures should be implemented before the rainy season begins, preferably immediately following construction. The measures will be maintained and reapplied until vegetation is successfully established.  Sediment control structures should be applied where needed to slow or redirect runoff and trap sediment until vegetation is established.		x		Visual inspection of control measures	x			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





		Phase		Frequency		ісу				
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	<b>Operation</b>	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Slope protection	<ul> <li>Protect slopes from erosion and landslides by the following measures:</li> <li>Indigenous Species, fast-growing grass will be used on slopes prone to erosion. These grasses help stabilize the slope and protect soil from erosion by rain and runoff. Locally available species possessing the properties of good growth, dense ground cover and deep root willwill be used for stabilization.</li> <li>Preventive/stopping ditches, which are especially effective in areas of high-intensity rainfall and where slopes are exposed, will be constructed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion.</li> <li>For steep slopes, a stepped embankment (terracing) is needed for greater stability.</li> <li>A retaining wall will be placed at the bottom of the unstable slope. There should be drainage holes for drainage of the road sub-base, thus reducing pressure on the wall.</li> <li>Rocks (riprap) can be used in addition to protect the slope.</li> <li>With sufficiently wide drainage ditches, uncontrolled discharge of water from the road surface will be removed from the slope.</li> </ul>		X		Visual inspection of control measures	X			Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction
Specific to Wastewater	Systems									
General Considerations for	Septic tanks must have a vent pipe to prevent the build-up of gas inside the chamber and willwill have a 'manhole' that provides	X			Design approval		ce duı desigi	_	PIU	Included in the cost of

### TERRP





			Phase	9		Fr	equei	ісу		
Potential Risks and Impacts	Proposed Mitigation Measures	Planning	Construction	Operation	Indicators for monitoring	Continous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
Septic Tanks (If used by the Contractor during construction)	access inside the tank if needed.  It will be ensured that the septic tanks have two chambers: the first chamber is for settling sludge, and the second chamber is for aerobic treatment. These chambers will generally treat wastewater better. Partially treated septic tank effluent can pollute groundwater and surface water. If this is not possible, septic tanks will be impervious and designed in accordance with "Regulation on Pit Opening Where Sewer System Construction is not Applicable" published in Official Gazette No: 13783 dated 19.03.1971.									construction
	The effluent of septic tank will not be discharged to an open drain or other surface water. The effluents need to be treated before final disposal. This may be achieved through (i) an underground leach field, (ii) a vegetated leach field, or (iii) a pit for soaking away. If this is not possible, septic tank effluent will be removed periodically by sewage trucks, and disposal will be provided within the scope of the protocol to be made with the relevant municipality that has a licensed wastewater treatment plant.  Community awareness should be raised so that the community inspects the septic tanks periodically and ensures that the septic tanks are emptied every few years for the tank to continue to function properly.			x	Effluent disposal records (if any)  Records of community awareness activities  Records of complaints		x		Local Authority (Mukhtar, municipality)	Included in the cost of construction
General Considerations for PWWTP (If used by the Contractor during construction for their workers))	If PWWTPs will be used to treat domestic wastewater generated by the workers, design approval of package facilities will be obtained before the construction.  PWWTP and discharge permits (Environmental Permits) will be received from the relevant governmental authorities before its operation.  It will be ensured that the PWWTP is operating in accordance with the requirements and that the wastewater quality complies with national discharge standards.	X		X	Design approval  Environmental Permits  Wastewater quality analysis	des onc	e dur ign ar e befo ratio	nd ore	Contractor (implementation)  Supervision Consultant (supervision)	Included in the cost of construction





# **Appendices**

# Appendix 1. Site Photographs Site Photographs of Cip Village Cip Village 114/86 and 128/72-73-74 Parcels



Photograph 1. Rural Housing Area-1



Photograph 2. Rural Housing Area-2 (Trees on the Parcel)



Photograph 3. Rural Housing Area-3



Photograph 4. Rural Housing Area (Storage For Hay)



Photograph 5. House Neighboring the Parcel



Photograph 6. Dwellings Close to the Parcel







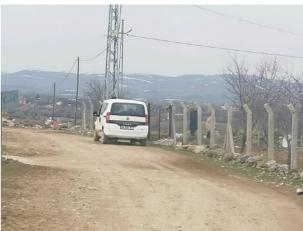
Photograph 7. Irrigation Channel at the Border of Parcels



Photograph 8. Trees and Electric Transmission Line



Photograph 9. Rural Housing Area



Photograph 10. Interviews with Stakeholders Living in the Nearest House



Photograph 11. Village Road and Irrigation Channel



Photograph 12. Irrigation Channel and Trees





### Cip Village 101/11 Parcel



Photograph 13. Cip 101/11 Parcel (the mosque is 52 meters north of the parcel)



Photograph 14. General View of Cip 101/11 Parcel-1



Photograph 15. General View of Cip 101/11 Parcel-2 Photograph 16. General View of Cip 101/11 Parcel-3







### Cip Village 160/21 Parcel







Photograph 18. General View of 160/21 Parcel and Closest Dwellings



Photograph 19. General View of 160/21 Parcel-2



Photograph 20. Village Road Near the Parcel



Photograph 21. Parcel's Opposite Side and Waste Container





### Cip Village 169/3 Parcel



Photograph 22. General View of 169/3 Parcel



Photograph 23. Interview with the Stakeholder (A Neighbor)



Photograph 24. General View of 169/3 Parcel-2



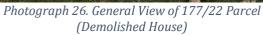
Photograph 25. Village Road Near the Parcel





#### Cip Village 177/22 Parcel







Photograph 27. View of Parcel and Road Near the Parcel





### Cip Village 105/18 Parcel







Photograph 29. General View of 105/18 Parcel, Fruit Trees and a Well



Photograph 30. 105/18 Parcel and Closest Dwellings



Photograph 31. Village Road Near the Parcel





### Site Photographs of Çamyatağı Village Camyatağı Village 105/298 Parcel



Photograph 32. General View of 105/298 Parcel-1



Photograph 33. General View of 105/298 Parcel-2



Photograph 34. The area next to the Association building (not included in the Project parcel). The area is empty and there is a structure in the middle.



Photograph 35. Seyda Molla Ali Science Dissemination and Solidarity Association (not included in the project parcel)



Photograph 36. Interview with the Shaykh of the Association



Photograph 37. View from 105/298 Parcel-3





#### Site Photographs of Salkaya Village Resettlement Area







Photograph 39. General View of Resettlement Area-2



Photograph 40. View of Village Road



Photograph 41. Creek in the Project's Area of Influence



Photograph 42. View of the Nearest Settlements



Photograph 43. Manhole in Resettlement Area (Infrastructure is available.)









Photograph 44. Infrastructure Work (Piping)

Photograph 45. Interview with the Right Holder





# Site Photographs of Alaca Village Alaca Village 127/7 Parcel







Photograph 46. General View of 127/7 Parcel-1

Photograph 47. General View of 127/7 Parcel-2







Photograph 49. General View of 127/7 Parcel-4 (the house is DW1 (in the map))





# Site Photographs of Altınkuşak Village Altınkuşak Village 1791 Parcel





Photograph 50.General View of 1791 Parcel-1

Photograph 51. General View of 1791 Parcel-2







Photograph 53. General View of 1791 Parcel-4 (House and Barn)



Photograph 54. General View of 1791 Parcel-5 (agricultural machinery and equipment put within the parcel)





## Site Photographs of Alatarla Village <u>Alatarla Village 102/38 Parcel</u>



Photograph 55.General View of 102/38 Parcel-1



Photograph 56. General View of 102/38 Parcel-2



Photograph 57. General View of 102/38 Parcel-3 (adjacent house)



Photograph 58. General View of 102/38 Parcel-4 (directly connected to the access road)





# Site Photographs of Poyraz Village Poyraz Village 102/43 Parcel



Photograph 59. General View of the Parcel



Photograph 60. Village Road and Nearest Dwellings to the Parcel



Photograph 61. Houses Across the Parcel



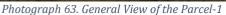
Photograph 62. Water Pipe in the Parcel





# Site Photographs of Üçağaç Village Üçağaç Village 103/235 Parcel







Photograph 64. Electric Transmission Lines and Bushes in the Parcel



Photograph 65. General View of the Parcel-2



Photograph 66. General View of the Parcel-3



Photograph 67. View from Village Road





## Üçağaç Village 115/1 Parcel



Photograph 68. General View of 115/1 Parcel (Trees and bushes)



Photograph 69. Bushes in the Parcel



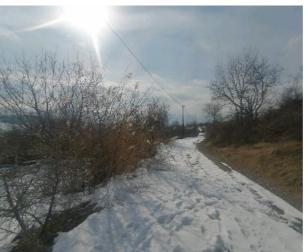
Photograph 70. General View of 115/1 Parcel-2



Photograph 71. General View of 115/1 Parcel-3



Photograph 72. Electric Transmission Line in Parcel



Photograph 73. View from Village Road





## Üçağaç Village 111/1 Parcel







Photograph 75. General View of 111/1 Parcel-2



Photograph 76. Nearest Dwellings



Photograph 77. View from the Nearest Dwelling



Photograph 78. Dwellings Across the Parcel



Photograph 79. View from Village Road





## Üçağaç Village 107/140 Parcel







Photograph 81. House Near the Parcel-2



Photograph 82. House Near the Parcel-3



Photograph 83. General View of 107/140 Parcel-1



Photograph 84. General View of 107/140 Parcel-2



Photograph 85. General View of 107/140 Parcel-3











Photograph 87. General View of 107/140 Parcel-4





## Site Photographs of Yukarıçakmak Village Yukarıçakmak Village 149/1 Parcel



Photograph 88. General View of 149/1 Parcel-1



Photograph 89. General View of 149/1 Parcel and Electric Transmission Lines



Photograph 90. Dwellings Near the Parcel-1



Photograph 91. Dwellings Near the Parcel-2



Photograph 92. Distance Between the Parcel and The Dwelling



Photograph 93. Waste Containers





## Site Photographs of Alpavut Village Alpavut Village 102/1 Parcel



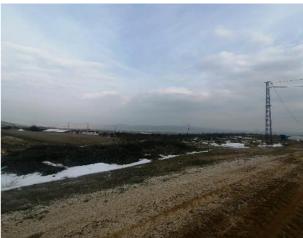
Photograph 94. General View of 102/1Parcel



Photograph 95. View from Parcel and Nearest Dwelling



 ${\it Photograph~96.~View~from~Village~Road-1}$ 



Photograph 97. View from Village Road-2



Photograph 98. A Water Well in the Nearest Dwelling



Photograph 99. Electric Transmission Lines and Water Storage Tank in AoI (not included in parcel)





## Alpavut Village 120/4 Parcel



Photograph 100. General View of 120/4 Parcel-1



Photograph 101. General View of 120/4 Parcel-2 and Fruit Trees



Photograph 102. Fruit Trees in the Parcel



Photograph 103. Opposite Side of the Parcel (Agricultural Area)



Photograph 104. Road Near the Parcel/Village Road





## Alpavut Village 109/13 Parcel







Photograph 106. Demolished House Near the Parcel



Photograph 107. Road Near the Parcel



Photograph 108. General View of 109/13 Parcel-2



Photograph 109. Irrigation Chanel in Parcel AoI (not included in parcel)





# Appendix 2. E&S Screening Form

(Given as a separate document)