Adjaristsqali Georgia LLC

# “Skhalta-Shuakhevi” 35 kV Overhead Transmission Line Project

## Re-Alignment in Furtio Village

## Annex to the 35kV Transmission Line Addendum to the Shuakhevi Hydropower Plant Land Acquisition and Livelihood Restoration Plan

October 2019

# Contents

# Acronyms and Abbreviations

ADB – Asian Development Bank

AGL – Adjaristsqali Georgia LLC

AH – Affected Household

AP – Affected Person

DMS – Detailed Measurement Survey

EBRD – European Bank of Reconstruction and Development

ESIA – Environmental and Social Impact Assessment

FHH – Female Headed Household

GEL – Georgian Lari

HPP – Hydropower Plant

IFC – International Finance Corporation

km - kilometers

LALRP – Land Acquisition and Livelihood Restoration Plan

OTL – Overhead Transmission Line

PAP – Project Affected Person

PC – Personal Computer

PR – Performance Requirement

PS – Performance Standard

RoW- Right of Way

SES – Socio-economic Survey

SR – Safeguard Requirement

TV – Television

The Annex - Annex to the 35kV Transmission Line Addendum to the Shuakhevi Hydropower Plant Land Acquisition and Livelihood Restoration Plan Re-Alignment in Furtio Village

The Project - “Skhalta-Shuakhevi” 35 kV Overhead Transmission Line Project

# Executive Summary

Adjaristsqali Georgia LLC (AGL) is the Project Developer of the Shuakhevi Hydropower Project (HPP) in Georgia. A 22.3 km long 35kV Skhalta-Shuakhevi Overhead Transmission Line (OTL) Project (the Project) is being constructed between two separate hydro power stations - Skhalta HPP and Shuakhevi HPP - to be built under the scope of AGL's Project. The line will allow the Skhalta HPP to transmit generated electricity into the Georgian 220kV network. Part of the generated electricity will be sold in Turkey or other Black Sea Transmission network countries' market and the rest will be used to reduce winter energy deficit in the Georgian electric network. The line will be constructed maximum within six to nine months of obtaining a necessary construction permit subject to normal climate conditions.

A 1km section of the 35kV transmission line has had to be re-routed in Furtio village because AGL and the concerned landowners/land users could not reach a mutual agreement over the acceptable compensation for usage or acquisition of the respective land plots. In particular, the landowners requested higher compensations than those AGL agreed with and paid to the neighboring landowners. Therefore, a new 1 km long route has been selected within Furtio village crossing east side of the village. As compared to the old route, the impact on land is higher as the towers are proposed to be installed on agricultural land plots. At the same time, from the environmental perspective, a massive tree felling has been avoided and hence the re-routing can be perceived as a better option. According to the 35kV line project design changes, the locations of towers №67 and №74 remain unchanged, whereas towers № 68, 69, 70, 71, and 72 will be relocated to a new corridor. For the current stage 94 out of 133 towers have already been erected and 106 foundations installed.

This Furtio Re-Alignment Annex to the 35kV OTL Project Addendum to the 2015 LALRP (hereinafter "the Annex") has been developed in reference to the Georgian legislation and in line with the principles and procedures of the October 2014 LALRP prepared for the Shuakhevi HPP Project[1] and the Lenders' requirements. The latter include the requirements of the 2012 International Finance Corporation (IFC) Performance Standard 5: Land Acquisition and Involuntary Resettlement, the 2014 European Bank of Reconstruction and Development (EBRD) Performance Requirement 5: Land Acquisition, Involuntary Resettlement and Economic Displacement, and the 2009 Asian Development Bank (ADB) Safeguard Requirement 2: Involuntary Resettlement. This Annex addresses permanent land acquisition and long-term partial impact on the land (envisaging restrictions on land use) for the 1km re-routing in Furtio village.

During the preparation process of this Annex the following works have been implemented:

- A detailed measurement survey (DMS) of lost assets (26 land plots owned/used by 16 Affected Households (AHs)) conducted in Furtio village. The census identified the number and gender of all family members and the DMS recorded the type of asset and its age, size, productivity, quality or condition, use and other relevant characteristics. The census was conducted in August-September 2019. The DMS results will be shared with the AHs prior to the disclosure of this Annex.
- A socio-economic survey (SES) of all 16 AHs was conducted. The SES covered the key socio-economic features of the affected persons (APs), namely ethnicity, education level, modes of livelihood, and sources of income, poverty/income levels, house type/value and land tenure types. The survey established the baseline conditions with regards to well-being, access to services and for all other social

[1] Available from https://www.adb.org/projects/documents/adjaristsqali-hydropower-project-oct-2014-rp

parameters listed above. The data will be used to monitor and evaluate the AHs return to pre-project conditions and any improvements to their standard of living. The survey was conducted in June 2019.

- The eligibility cut-off date was declared as being the 5th September 2019 (i.e., the completion date of the DMS), and this was communicated to the AHs during the DMS survey.

Permanent land acquisition and long-term partial impact on the land (envisaging restrictions on land use) for the 35kV Overhead Transmission Line (OTL) in Furtio village will affect private landowners (both registered and non-registered), State owned or managed land, and land under forest funds. No physical resettlement will be triggered. In total, the re-routing project will cross 26 land plots that are in private use by 16 AHs and occupy a total area of 69,718.81 sq.m. (6.9 ha) ***(*Table 1*)***. Part of this total area will be affected by the project, namely 36,866.02 sq.m (3.6 ha). Of this, 178.30 sq.m. (0.01 ha) falls under permanent impact and 36,687.72 sq.m. (3.6 ha) fall under long-term partial impact due to restricted access / use. Out of the affected land, 3 land plots (1,931.00 sq.m./0.1 ha) are registered to 2 AHs, and 5 land plots (3,724.07 sq.m/0.3 ha) can be legalized by 3 AHs meaning that the land users under this category own the documents required for land legalization under Georgian legislation. Further, private users (14 AHs) use 18 land plots (31,210.95 sq.m/3.1 ha) owned by the state and these land plots are not subject to legalization. In addition, the project will affect the state land (2,191 sq.m/0.2 ha) not used by any persons and the forest funds (19,512 sq.m/ 1.9 ha). 5 AHs will permanently lose 178.30 sq.m. in total (35.66 sq.m. of land each); while all 16 AHs will experience a long-term partial impact on 36,687.72 sq.m. of land used by them (on average 1,310.28 sq.m. of land each).

All towers will be erected on the non-registered land. Tower N68 will be erected on the legalizable land parcel, while the other four 're-routed' towers will be erected on the state land parcels used by the informal AHs.

**Error! Reference source not found.** Error! Reference source not found.provides an overview of the land-related impacts, including access roads[2].

*Table 1 Land Acquisition and Long-term Partial Impact on Land*

| Description | No. of AHs | No. of Land Plots Under Permanent Impact | Total Area ($m^2$) | Area Land Plots Under Permanent Impact (m2) | No. of Land Plots Under Long-term partial impact | Area of Land Plots Under Long-term partial impact (m2) | Total No of Land Plots Under Impact | Total Area of Land Plots under Impact (m2) |
|---|---|---|---|---|---|---|---|---|
| **Land used by private users** | 16[3] | 5 | 69,718.81 | 178.30 | 26 | 36,687.72 | 26 | 36,866.02 |
| Registered | 2 | 3 | - | - | 3 | 1,931.00 | 3 | 1,931.00 |
| Legalizable | 3 | 1 | - | 35.99 | 5 | 3,688.08 | 5 | 3,724.07 |
| Informal users – Not Legalizable | 14 | 4 | - | 142.31 | 18 | 31,068.64 | 18 | 31,210.95 |
| **Forest Funds** | - | - | 19,512.00 | 46.00 | - | 19,466.00 | - | 19,512.00 |

[2] Access roads will be arranged within the OTL buffer zone which are covered by the servitude.

[3] The mechanical sum of the AHs is more than the number of AHs under impact losing land plots, as one AH owns several types of land.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Owned by State (Not used by informal users)** | - | - | 2,091.00 | - | - | 2,091.00 | - | 2,091.00 |

The share of the land permanently lost by each AH as a result of re-routing does not exceed 1% of all the area owned / used by them. As for easement, in total 12 land plots with trees fall under the long-term partial impact (used by 9 AHs). Only one auxiliary structure (wooden hut) will be affected by the re-routing project.

The Annex includes the cost estimates and budget for land acquisition and livelihood restoration without the indication of tax costs (the taxes and costs will be paid by AGL on top of the compensations). The estimated budget for the land acquisition and livelihood restoration for this diverted route is **242,201.91** GEL.

# 1 Introduction

## 1.1. Background

The Government of Georgia's National Policy is to develop the whole country and to create new jobs. The hydro power sector is prioritized for such development because of Georgia's comparative advantages with rivers from the mountains areas and its high precipitation levels. Through energy sector investments Georgia will also achieve energy independence and security of electricity supply. In addition, Georgia considers electric power to be an export commodity and is aiming to develop this potential.

Adjaristsqali Georgia LLC (AGL), a subsidiary of Clean Energy Invest AS, was awarded the development rights for the Adjaristsqali Hydropower Cascade Project [also known as Shuakhevi HPP] in Georgia following a competitive tender. The Shuakhevi HPP is being developed in cooperation with International Finance Corporation (IFC) InfraVentures, an early stage project developer launched by IFC, a member of the World Bank Group and other lenders, including the European Banks for Reconstruction and Development (EBRD) and the Asian Development Bank (ADB). The Project is a part of the Energy policy of the Government of Georgia aimed at reaching economic independence and sustainability of the power supply and providing energy security through internal power generation. The electric power is considered as an export product by Georgia due to its well-connected transmission network with other countries and Government is planning to develop hydroelectric power potential.

The Environmental and Social Impact Assessment (ESIA) for the Shuakhevi HPP Project was prepared during the Feasibility Study stage (July 2011-August 2012) with the final version issued in September 2013. The Land Acquisition and Livelihood Restoration Plan (LALRP) for the Shuakhevi Hydropower (HPP) Project was prepared in 2012 and updated in 2014.

In 2014, the need for the 35kV Skhalta-Shuakhevi Overhead Transmission Line Project (the Project) was identified. This Project represents an around 22.3 km single circuit overhead power line to be constructed between two separate hydro power stations – Skhalta and Shuakhevi - within the scope of the Shuakhevi HPP project. The line will allow the Skhalta HPP to transmit generated electricity into the Georgian 220kV network. This document represents the Annex to the 35kV OTL LALRP Addendum to the Shuakhevi LALRP and covers only 1km of transmission line re-alignment in Furtio village.

## 1.2. Project Description

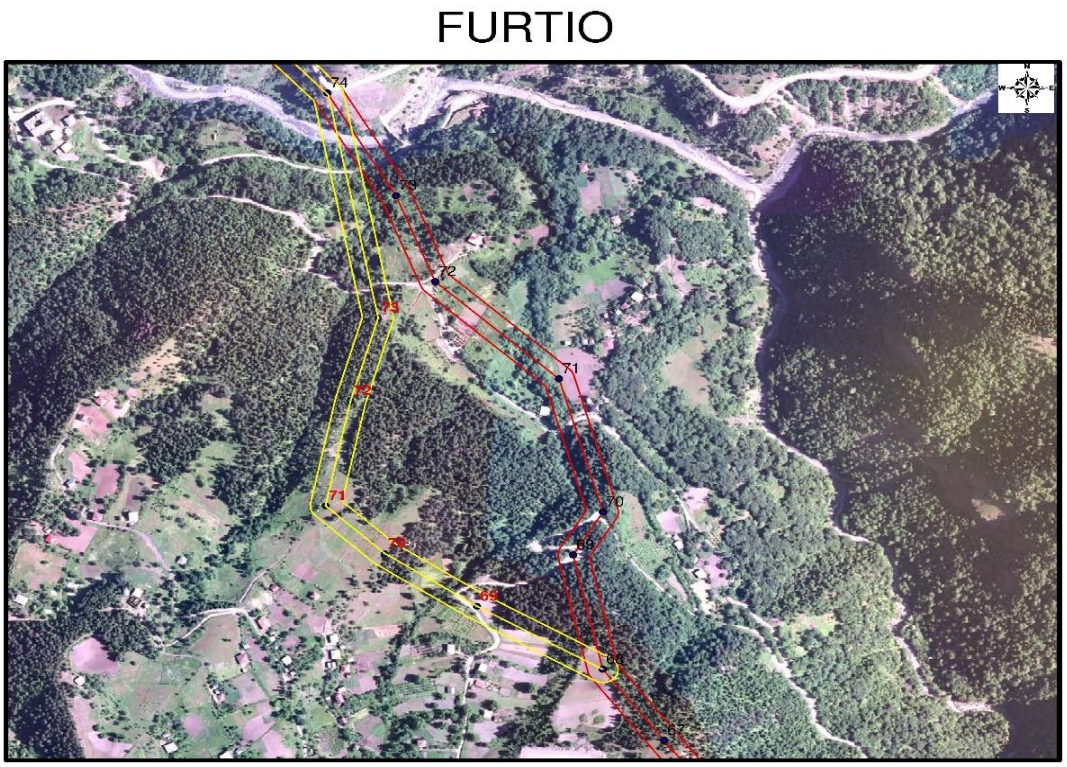
The 35kV Skhalta-Shuakhevi Overhead Transmission Line Project is being constructed between two separate hydro power stations – the Skhalta HPP and Shuakhevi HPP. The line will allow the Skhalta HPP to transmit generated electricity into the Georgian 220kV network. Construction of the OTL started in 2016. New Metal Georgia has been selected as the Contractor of the Project. For the time being 94 out of 133 towers have already been erected and 106 foundations installed. Construction completion is expected in late December 2019.

The right-of-way (ROW)/easement/servitude for the OTL will extend 15 meters from outer conductors to either side and, with a cross-arm length of 5 meters on either side, to make up a total of 40 meters. Towers

will have a maximum height of 35 meters with a maxim sum span length of 400 meters and an average of 200 meters between two towers. A total of 133 towers are planned to be installed along the 40m corridor of impact.

As landowners/users and AGL did not reach agreement over acceptable compensation for the land acquisition and usage in Furtio village (Shuakhevi Municipality), a new 1km route has been selected to re-route the transmission line. According to the 35kV OTL design change, the locations of towers №67 and №74 remain unchanged, whereas towers № 68, 69, 70, 71, and 72 will be relocated to a new corridor.

*Figure 1 - Furtio Re-alignment layout map*[4]




## 1.3. Organization of the Annex

The Annex is organized as follows:

- Section 2 - Socio-economic characterization describes the socio-economic context of the AHs for relevant to this Annex.
- Section 3 - Land Acquisition and Livelihood Restoration Impacts provides a summary of the magnitude of displacement that will be associated with this Annex.
- Section 4 - Methods of Evaluating Assets describes the methods used to determine compensation rates.
- Section 5 - Land Acquisition and Compensation Process relevant to this Annex.

[4] The red lines show the old route while the yellow one is for the new route.

- Section 6 - Stakeholder Engagement describes the process of stakeholder engagement that has been and will be undertaken with AHs.
- Section 7 - Grievance Management and Redress Mechanism sets out the process and procedures that is being implemented to enable APs to voice any concerns or grievances and to allow resolution;
- Section 8 - Livelihood Restoration Plan describes measures that go beyond compensation to mitigate and enhance livelihood restoration and contribute to improving AHs' well- being and community development;
- Section 9 - Monitoring and Evaluation presents the process for monitoring and evaluation relevant to this Annex.
- Section 10 - Project Schedule and Budget relevant to this Annex.

# 2 Socio-economic Characterization

## 2.1. Overview

The new 1km long route of the 35kV OTL passes through Furtio village and is expected to affect the assets of a number of the local residents. This section describes the AHs and affected persons (APs) in this particular village. The information is based on:

- A detailed measurement survey (DMS) of lost assets (26 land plots used/owned by 16 AHs) conducted in Furtio village affected by the re-routing project.
- A socio-economic survey (SES) was conducted with all 16 AHs living in Furtio. The SES covered the key socio-economic features of the APs. The data will be used to monitor and evaluate the AHs return to conditions prior to OTL impacts and any improvements to their standard of living. (Template of the SES instrument is given in Appendix A. SES Instruments)

## 2.2. Methodology

The SES was conducted at the end of June 2019 and covered all 16 AHs. Face to Face study technique was applied for the SES. After the data collection and data entry were completed, the statistical analysis was performed. The information below describes the socio-economic conditions of the AHs in Furtio village.

## 2.3. Socio-Demographic Profile

16 AHs using / owning the re-routing project-affected land plots in Furtio village were inquired during the survey – the total number of people in the affected households is 75, of whom 18 are children. Gender distribution among household members is almost equal (female - 48%, male – 52%). As for age distribution, the biggest share of respondents belongs to 25-44 age group (female – 39%; male – 41%), and the smallest share to the age category of 18-24 (female – 3%; male – 8%). It should be noted that there are more female members of 55 and older age in the AHs than male members (female – 31%, male – 15%), while there are more men of 45-54 presented in the target families than women of the same age (female – 3%, male -13%) see Chart 1 and Chart 2.

*Chart 1 Distribution of Affected Persons by gender*

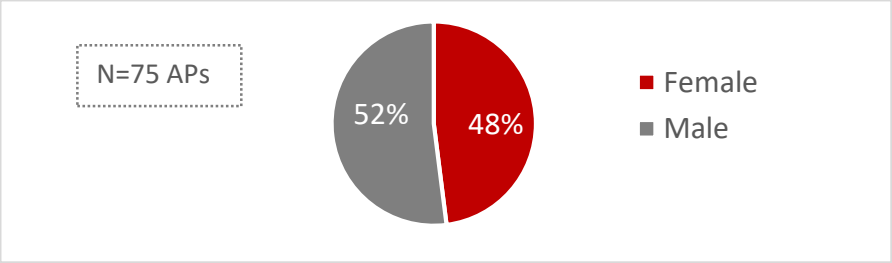
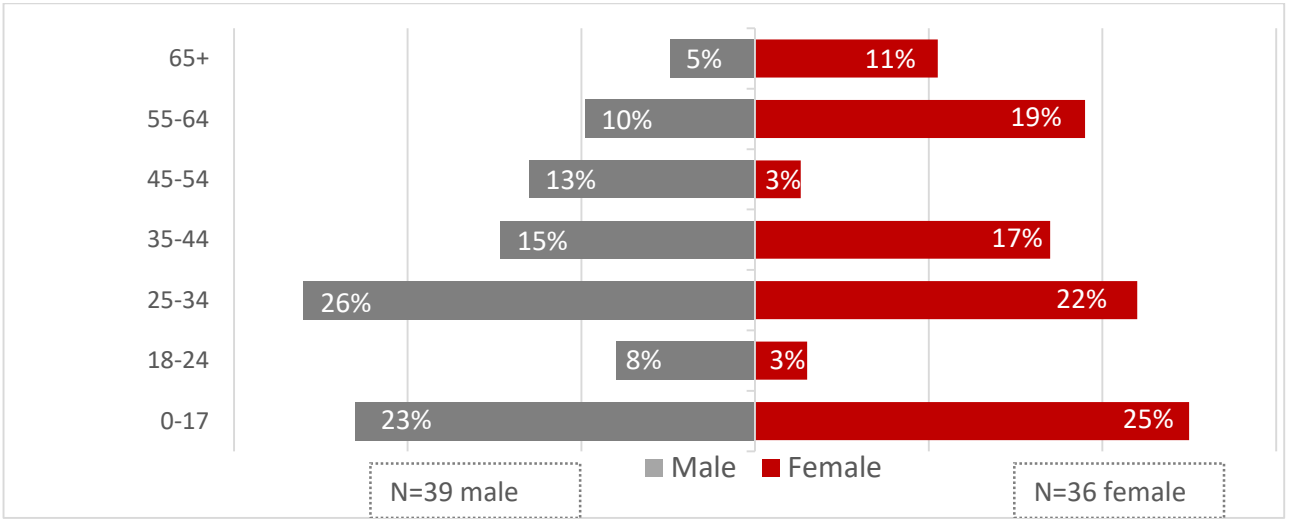
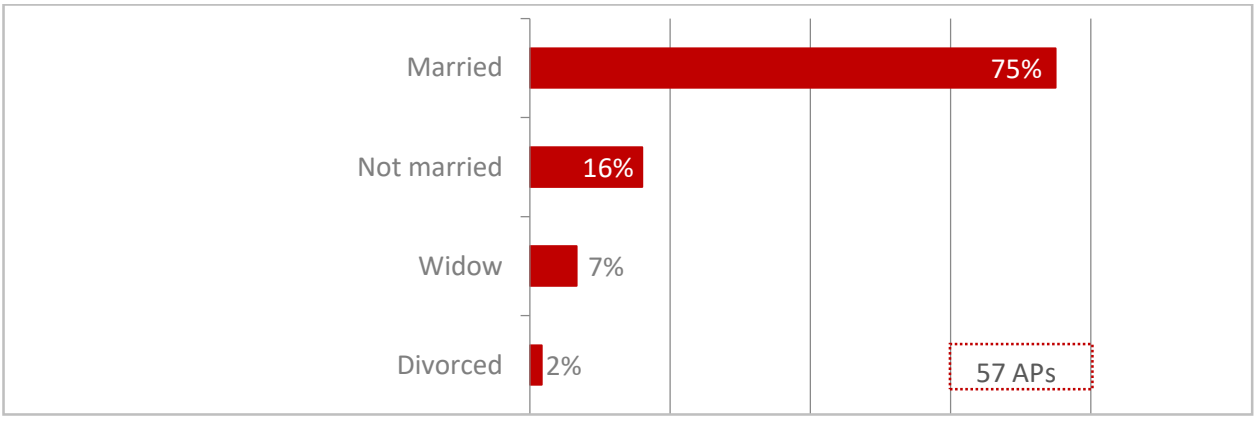


*Chart 2 Age Pyramid*



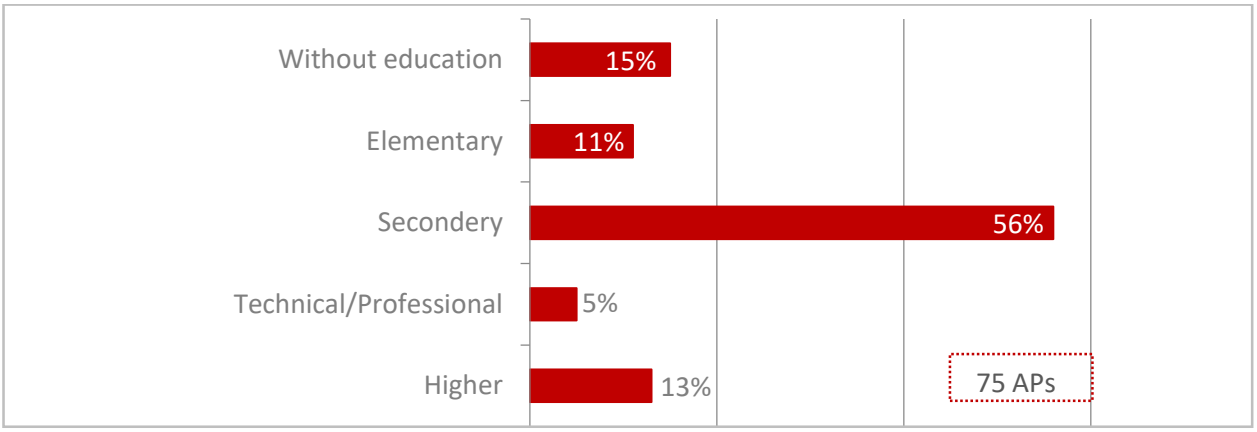

As for marital status of APs, majority of adult residents (18+) are married (75%), 16% of them have never been married and 7% are widowed. Only one AP is divorced, *see* Chart 3.

*Chart 3 Marital Status of Inquired APs*



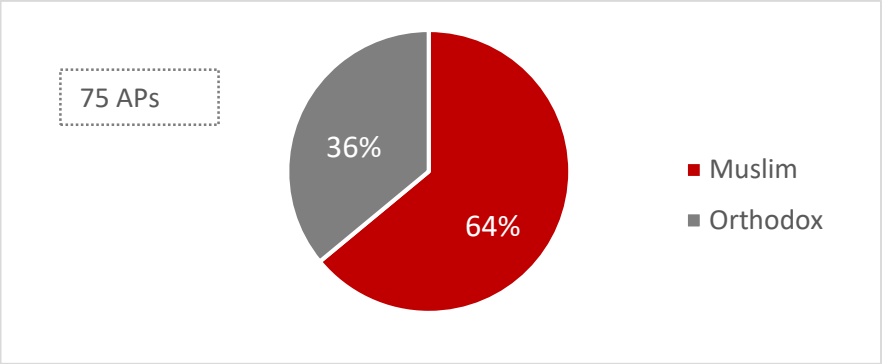

The socio-economic study reveals that the majority of the APs has secondary education (56%). The share of the APs having higher education and technical/vocational education is very low and comprises 13% and 5% accordingly. Those who have not received education comprise 15% and are of preschool age. There is only one adult of 67 years old without education, *see* Chart 4.

*Chart 4 Education Level of Inquired APs*



All the household members of AHs are Georgians. The majority of them are Muslims (64%) and 36% report being Orthodox, *see Chart 5.*

*Chart 5 Religious affiliation*



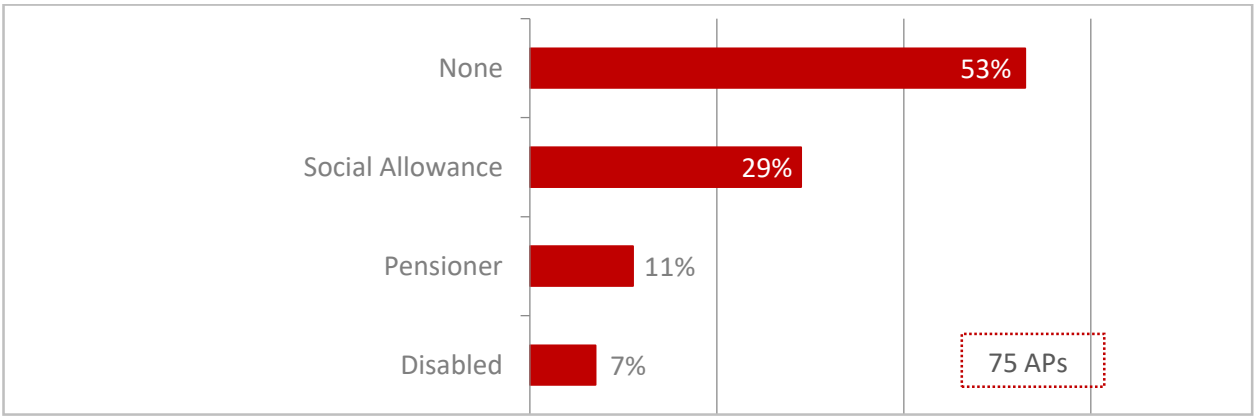

## 2.4. Households' Socio-Economic Conditions

A half of the APs have no social status (53%), while almost every third reports receiving social allowances[5] (29%). 11% of APs are pensioners and 7% are disabled people, *see* Chart 6.

As for social status of the AHs, four out of 16 AHs are below the poverty line[6] and receive social allowance. 4 AHs out of 16 receive allowance for disabled. Among those who receive social allowances, there is one AH that receives both allowances, i.e. allowance for the disabled person and for being below the poverty line, *see* Chart 7.

Only one AH out of 16 is headed by a woman (this AH is above the poverty line).

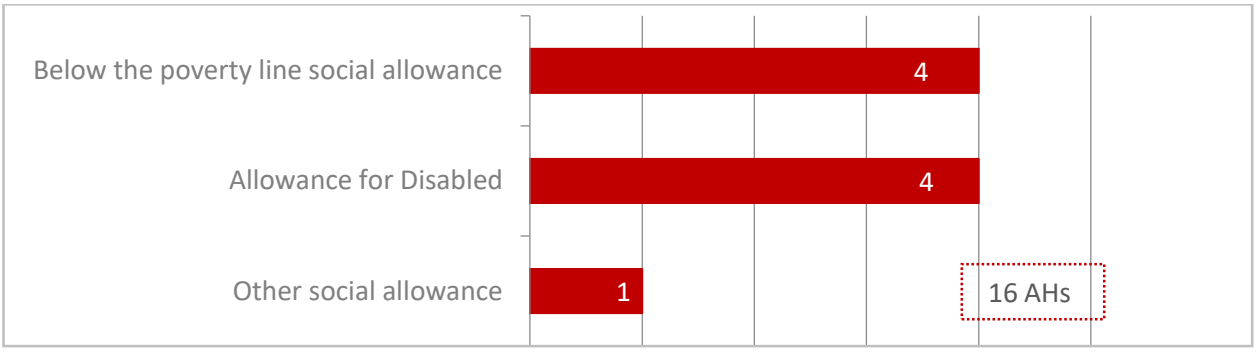
*Chart 6 Social Status of Inquired APs*




[5] The detailed information regarding the state allowances is available from http://ssa.gov.ge/index.php?lang_id=GEO&sec_id=22

[6] The detailed information regarding below poverty line is available here http://ssa.gov.ge/index.php?lang_id=GEO&sec_id=35

*Chart 7 Social Status of Inquired AHs*




Every fifth adult member (18+) of AHs is either unemployed (19%), a housewife (22%) or retired (22%). Every third adult AP is employed (33%). Only one adult member of AHs owns a business and one is still a student. All unemployed APs (11 out of 11) desire to find a job and have been looking for one for an average of 12 years, *see* Chart 8.

Almost one-third of employed population works in service provision (6 out of 19), every fourth in education (5 out of 19) and military services (4 out of 19). 3 people out of 19 employed, work in medical sphere and only 1 in transportation, *see* Chart 9.

As for household income, the highest monthly income on average comes from salaries of public sector (958 GEL) and business sector (847 GEL). The lowest income is through pensions (318 GEL) and social allowances (294 GEL). It should be noted that only one inquired AP named income from agriculture (125 GEL), *see* Table 2 Household Income Sources.

*Chart 8 Employment Status*

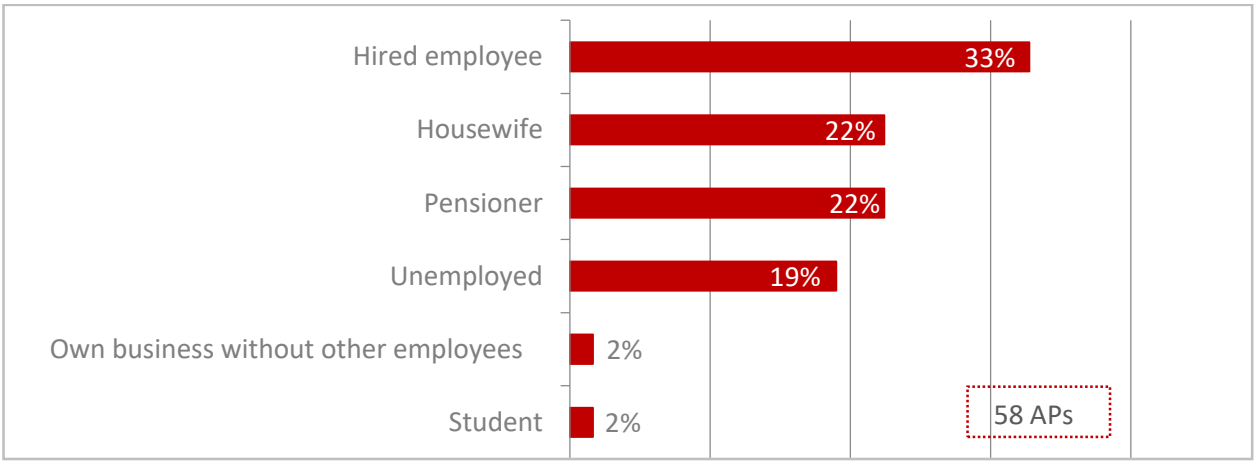


*Chart 9 Employment Field*

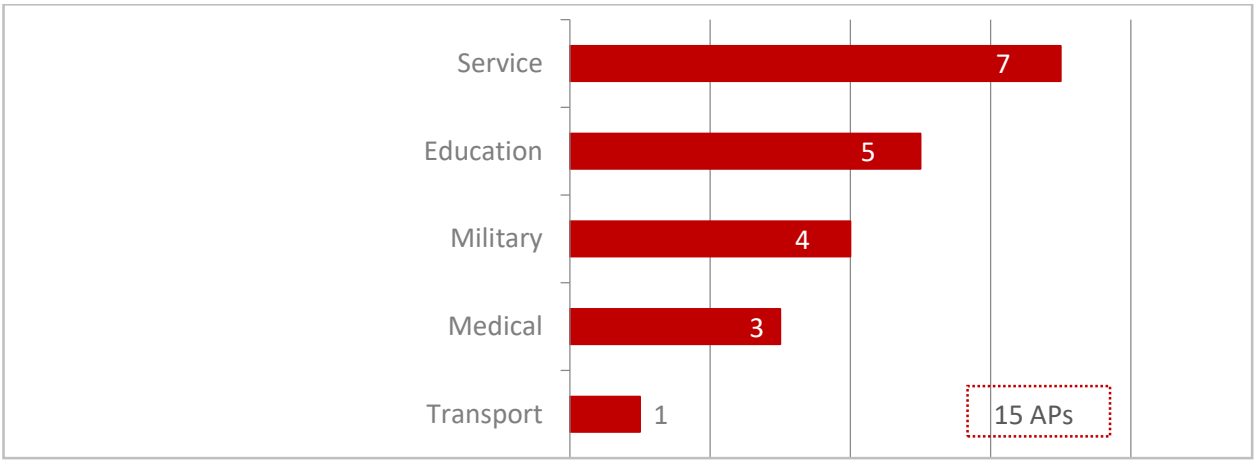



*Table 2 Household Income Sources*

| Income Sources | No. of AHs | Average monthly income in GEL | Average annual income in GEL |
|---|---|---|---|
| Salary from public sector | 7 | 957.86 | 11494.29 |
| Salary from private sector | 6 | 846.67 | 10160.00 |
| Income from agriculture | 1 | 125.00 | 1500.00 |
| Pension | 9 | 318.22 | 3818.67 |
| Social allowance | 6 | 294.14 | 3529.68 |
| Temporary jobs | 2 | 500.00 | 4500.00 |

Total average household monthly expenses comprise 1139.80 GEL (which is slightly higher than the national monthly average)[7]. 42% of this amount (478.24 GEL) is spent on the purchase of food products, *see* Table 3.

*Table 3 HH Expenses*

| Expenses | Average in GEL | % |
|---|---|---|
| For food | 495.63 | 44.0 |
| Other (not for food) | 637.92 | 56.0 |
| Total | 1139.80 | 100 |

More than half of households have a bank loan (10 out of 16 AHs), 5 out of 16 AHs have also a loan from a private entity and 4 of them from a micro-finance organization.

About a half of the AHs report that their socio-economic state has not changed during the last 3 years (7 out of 16 AHs). Eight inquired AHs report their socio-economic state being deteriorated (Deteriorated - 3

[7] According to the National Statistics Office of Georgia the monthly average expenditure per household in 2018 comprised of 1102 GEL.

AHs and Significantly Deteriorated - 5 AHs). Only one AH states that their socio-economic state changed positively in the last 3 years, *see* Chart 10.

*Chart 10 Changes to the Socio-Economic State of the AHs in the Last 3 Years*


Equal share of households either report not having barely enough money for food (8 out of 16 AHs) or having enough money for food, but need to save up or loan to buy clothes and shoes (8 out of 16 AHs), *see* Table 4.

*Table 4 Financial Situation of AHs*

| Financial Situation of AHs | No. | % |
|---|---|---|
| Barely enough money for food | 8 | 50.0 |
| We have enough money for food; however, we need to save up or loan to buy clothes and shoes | 8 | 50.0 |

## 2.5. Real Estate and Property[8] Used by AHs

All inquired AHs own/use agricultural land (16 AHs), while only three of them also own/use non-agricultural land. Average area of used land is 0.26 ha and average area of agricultural land makes 0.27 ha. From total number of plots owned/used by AHs (N=48), 94% is agricultural, 6% - non-agricultural.

The vast majority of population own/use arable (16 out of 16 AHs) and residential (15 out of 16 AHs) land plots - and 13 AHs use land plots for perennial trees and 4 out of them for mowing, *see* Chart 11.

15 AHs out of 16 own residential buildings, while 10 of them also own auxiliary ones, *see* Chart 11.

[8] The information collected though SES is respondent based, the households refer to the lands as under their ownership even though not having official registration valid under Georgian registration. The status of land registration is discussed in chapter 3 Land Acquisition.

*Chart 11 Real estate owned by AHs*


Most of the residential buildings are made of stone (12 out of 21) and wood (5 out of 21), only one is made of concrete and one of block-brick. Most of the residential houses have either one (14 out of 21) or two (7 out of 21) floors.

The most frequently owned movable properties include cell phone (100%), TV (16 out of 16 AHs), refrigerator (13 out of 16 AHs), and washing machine (12 out of 16 AHs). Only five inquired households report having a car and four - PC. Internet is available for those two households who live in the city, *see* Table 5.

*Table 5 Movable Property*

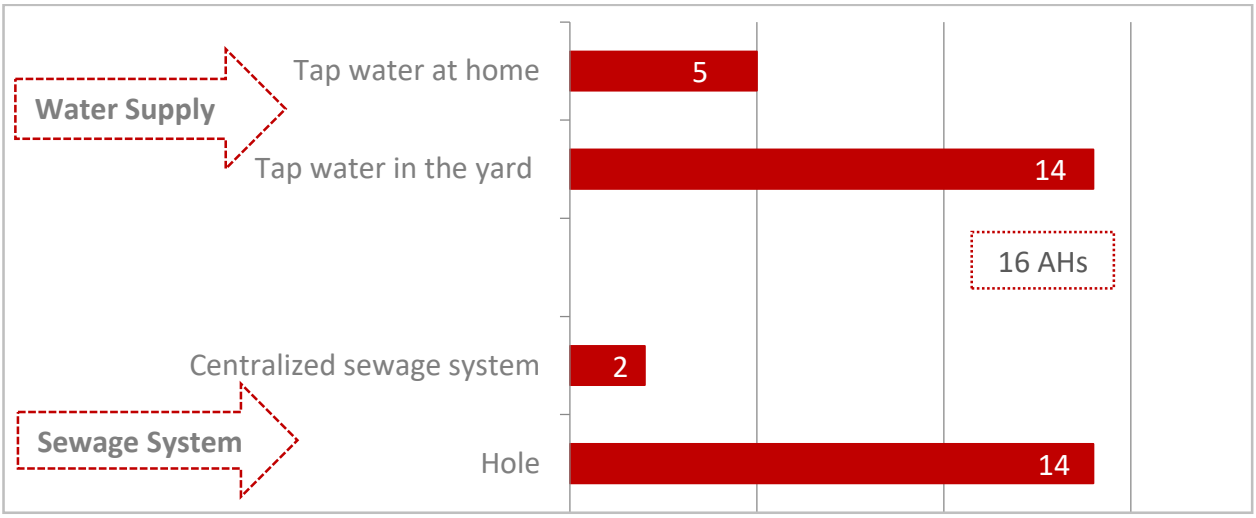
| Household items | Number of Items | Number of AHs |
|---|---|---|
| TV | 17 | 16 |
| Landline Phone | 1 | 1 |
| Cell Phone | 44 | 16 |
| Internet | 2 | 2 |
| Radio | 0 | 0 |
| PC | 5 | 4 |
| Washing Machine | 12 | 12 |
| Refrigerator | 14 | 13 |
| Motorcycle | 1 | 1 |
| Car | 5 | 5 |
| Bicycle | 1 | 1 |

## 2.6. Access to Utilities and Public Services

The most common water source for the AHs living in Furtio village is a tap water in the yard as all affected inhabitants of this settlement report it as the only source of water supply. Two local dwellers say that they also have a tap water inside the house. There are only three inquired AHs who do not permanently live in Furtio village and they named a tap water inside the house as the main source of water supply, *see* Chart 12.

None of inquired Furtio inhabitants have access to the centralized sewage system and they use individually made holes in their own yards. Only the AHs who live in the urban type of settlements are connected to the centralized sewage system, *see* Chart 12.

*Chart 12 Water Supply and Sewage System*




All inquired AHs have access to the central electricity system (100%) and the vast majority to wood (15 out of 16 AHs). 13 households out of inquired 16 use liquid gas, while only two have access to natural gas (the two AHs who live in Batumi), *see* Table 6.

*Table 6 Access to Energy Sources*

| Energy Sources | No. | % |
|---|---|---|
| Electricity | 16 | 100 |
| Natural gas | 2 | 12.5 |
| Liquid gas | 13 | 81.3 |
| Wood | 15 | 93.8 |

According to the survey results waste disposal services are not available for Furtio inhabitants and they do not have access to irrigation systems.

Only three inquired households have kindergarten age child/children at home, out of which, all attend kindergarten. Everyone who sends their children to kindergarten are satisfied with it.

Six AHs have school aged child/children at home. All of them send their children to school and are satisfied with it.

11 inquired households report having required medical assistance within the last 12 months for any of their family members and all of them have addressed a medical facility/doctor for the above-mentioned assistance. Almost all of the AHs who have addressed a doctor are satisfied with the provided medical services (10 out of 11 AHs).

Distance to the nearest provider of different public services is presented in the table below. In Furtio village primary services such as local road, kindergarten and school are available in the distance of about 2 kilometers, while district/city hospital are located within the distance of about 12 kilometers, *see* Table 7.

*Table 7 Distance to Different Public Services*

| Public Services | Average Distance (km)[9] |
|---|---|
| Local polyclinics | 3 |
| Local hospitals | 1 |
| District or city hospital | 10 |
| Kindergarten | 2 |
| School | 2 |
| Higher education institution | 1 |
| Local road | 0 |
| Central highway | 4 |

## 2.7. Agriculture

All inquired AHs report cultivating the agricultural land but only four of them say admit selling the agricultural goods produced by their households.

None of the households owns poultry, sheep, goats, pigs, donkeys or horses. 7 AHs own cattle, on average 1.9.

Since agricultural work can often be affected by natural disasters, the respondents were asked about their incidence. It is noteworthy but none of them can name any disasters that are common in Furtio village. However, they are quite worried about the quality of fruit and vegetables there. They say that there is almost no production any more. Besides, the trees in the forests around are dying and they do not know the reason.

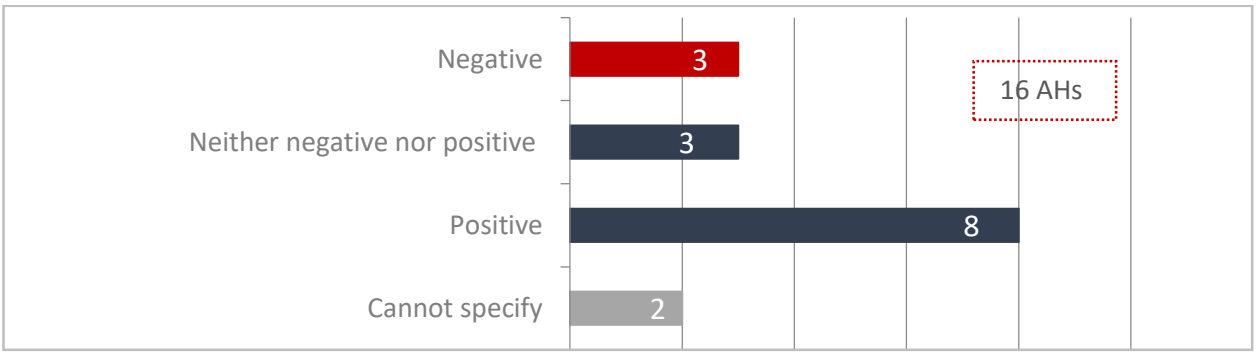
## 2.8. Attitude towards the Project

Eight out of inquired 16 AHs expressed positive attitude towards the 35kV OTL project implementation, three felt neutral (neither positive nor negative) and the other three had negative feelings. Two respondents could not specify their attitude towards the project, s*ee* Chart 13.

As for the expected impact on the socio-economic development of the municipality, four out of 16 respondents could not specify their attitude. Almost equal number of AHs believe that the project will either be beneficial in this regard (5 AHs) or have neutral affect (4 AHs). Only three AHs think that it will not influence economic development of the municipality positive way, s*ee* ***Error! Reference source not found.***.

[9] Distance to local hospitals and higher educational Institutions were named only by the city dwellers. None rural dwellers could name the exact distance.

*Chart 13 General Attitude towards the Project*



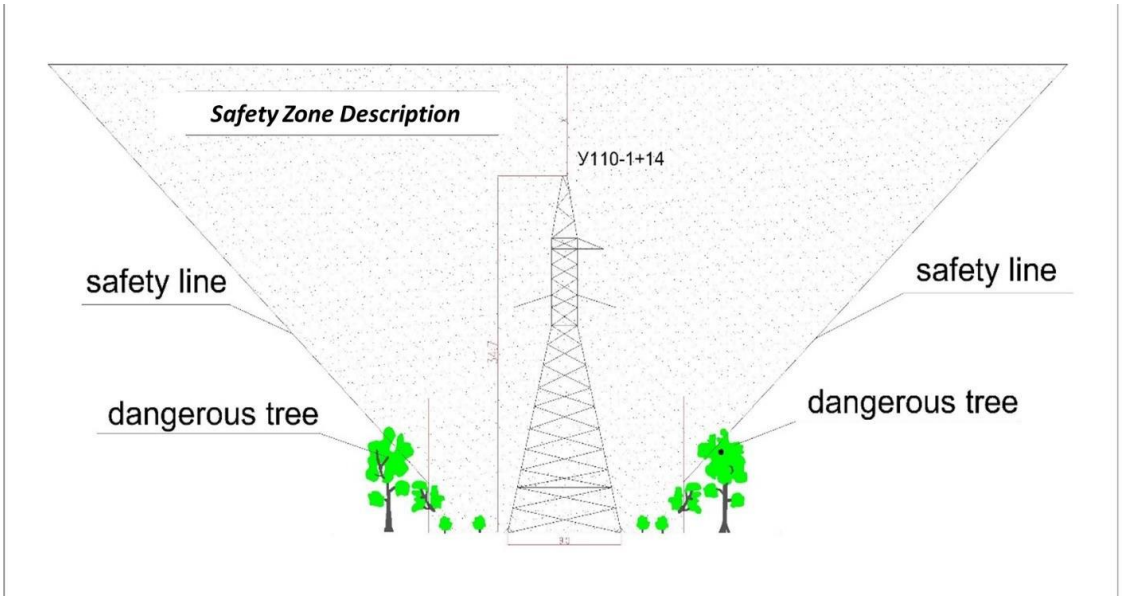

# 3 Land Acquisition

## 3.1. Overview

This section provides a summary of the magnitude of impact that will be associated with the construction and operation activities at the Furtio section. It identifies impacts based on losses including land, structure, crops, trees and income.

The impacts on land have been distinguished as a permanent impact (permanent land take) and a partial impact, which means that the land is not taken and is left in a possession of the private owner/user, however certain limitations are imposed on the mentioned land plots in terms of admissible land use. The only land that needs to be acquired permanently for the 35kV OTL is the area falling under the tower footprints. In total 1 km long OTL section in Furtio village will erect 5 towers with 36 sq.m footprint each. In total 178.30 sq.m of land used by private users has to be acquired permanently. The other land falling within the safety corridor (40m) and imposed to only partial impacts (limitation of land use), will remain in a possession of the owners/users, however the affected owners/users will be compensated for imposed restrictions according to easement (servitude) agreement. Servitude agreement will impose the height limit of 4m. The safety zone will also impose limits to building any structures within the RoW. Figure 2 below describes the safety zone for the 35kV OTL.

*Figure 2 The Safety Zone*




The organic law of Georgia "About the Ownership of the Agricultural Land"[10] adopted on June 25, 2019 bans selling agricultural land plots to foreign private/legal persons. Differently from the previous land acquisition experience AGL is not able to purchase private land plots directly as the founders of the Company are foreign Companies and it is regarded as a foreign legal entity. Following the consultations with various governmental entities the following procedures have been agreed: 1. AGL pays the land owner the market price for the required land plot; 2. Land owner ceases the ownership and the State of Georgia acquires ownership over the land; 3. AGL applies to the State with a request to transfer the land to the Company based on the Build-Own-Operate (BOO) agreement.

Possession of servitude rights is not constrained since it is not regarded as sale/purchase transaction.

## 3.2. Land Acquisition

Permanent land acquisition and long-term partial impact on the land (envisaging restrictions on land use) for the 35kV Overhead Transmission Line (OTL) in Furtio village will affect private landowners (both registered and non-registered), State owned or managed land, and land under forest funds. No physical resettlement will be triggered. In total, the re-routing project will cross 26 land plots that are in private use by 16 AHs and occupy a total area of 69,718.81 sq.m. (6.9 ha) ***(*Table 1*)***. Part of this total area will be affected by the project, namely 36,866.02 sq.m (3.6 ha). Of this, 178.30 sq.m. (0.01 ha) falls under permanent impact and 36,687.72 sq.m. (3.6 ha) fall under long-term partial impact due to restricted access / use. Out of the affected land, 3 land plots (1,931.00 sq.m./0.1 ha) are registered to 2 AHs, and 5 land plots (3,724.07 sq.m/0.3 ha) can be legalized by 3 AHs meaning that the land users under this category own the documents required for land legalization under Georgian legislation. Further, private users (14 AHs) informally use 18 land plots (31,210.95 sq.m/3.1 ha) owned by the state and these land plots are not subject to legalization. In addition, the re-routing project will affect the state land (2,191 sq.m/0.2 ha) not used by any persons and the forest funds (19,512 sq.m/ 1.9 ha). 5 AHs will permanently lose 178.30 sq.m. in total (on average35.66 sq.m. of land each); while all 16 AHs will experience a long-term partial impact on 36,687.72 sq.m. of land used by them (on

[10] https://matsne.gov.ge/ka/document/view/4596123?publication=0

average 1,310.28 sq.m. of land each). Tower N68 will be erected on the legalizable land parcel, while all the other four towers will be erected on the state land parcels informally used by the AHs. **Error! Reference source not found.** Error! Reference source not found.provides an overview of the land-related impacts.

*Table 8 Land Acquisition and Long-term Partial Impact on Land*

| Description | No. of AHs | No. of Land Plots Under Permanent Impact | Total Area ($m^2$) | Area Land Plots Under Permanent Impact (m2) | No. of Land Plots Under Long-term partial impact | Area of Land Plots Under Long-term partial impact (m2) | Total No of Land Plots Under Impact | Total Area of Land Plots under Impact (m2) |
|---|---|---|---|---|---|---|---|---|
| **Land used by private users** | 16[11] | 5 | 69,718.81 | 178.30 | 26 | 36,687.72 | 26 | 36,866.02 |
| Registered | 2 | 3 | - | - | 3 | 1,931.00 | 3 | 1,931.00 |
| Legalizable | 3 | 1 | - | 35.99 | 5 | 3,688.08 | 5 | 3,724.07 |
| Informal users – Not Legalizable | 14 | 4 | - | 142.31 | 18 | 31,068.64 | 18 | 31,210.95 |
| **Forest Funds** | - | - | 19,512.00 | 46.00 | - | 19,466.00 | - | 19,512.00 |
| **Owned by State (Not used by informal users)** | - | - | 2,091.00 | - | - | 2,091.00 | - | 2,091.00 |

The share of the land permanently lost by each AH as a result of re-routing does not exceed 1% of all the area owned / used by them. As for easement, in total 12 land plots with trees fall under long-term partial impact (used by 9 AHs).

Land plots under partial long-term impact will be used by AGL under easement (servitude) agreements. Initially the land plots under project impact will be registered to land users (if legalizable), afterwards the land plot subject to permanent and partial long-term impact will be divided in two land plots, out of which one under permanent impact will be acquired and other part will be subject to compensation under servitude (easement) agreement.

None of AHs will lose more than 1% of their productive assets permanently in the project area and therefore there is no significant impact (the current framework does not consider the lost assets as severe unless 50% of the productive assets are affected permanently by the project area). Accordingly, there are no cases of severe impacts under the project.

[11] The mechanical sum of the AHs is more than the number of AHs under impact losing land plots, as one AH owns several types of land.

The Project affects only one structure owned by one AH. The facility is a one-story wooden building (hut) constructed on stone plates. The roofing is made of tin sheet. The structure is not use and will be removed outside the RoW or demolished. Total area is 16, 00 square meters, *see* Table 7.

*Table 9 Project Affected Structures*

| Structure | No of Structures | No of AHs | Area of Affected Structures (M2) | Village |
|---|---|---|---|---|
| Structure (wooden hut) | 1 | 1 | 16.00 | Furtio |
| **Total Number** | **1** | **1** | **16.00** | **-** |

## 3.3. Tree Loses

The Project will require several plots with fruit-bearing trees to be acquired permanently. Table 10 summarizes the re-routing project tree losses which will need to be compensated. In total, 10 AHs are affected and some of them are losing several species.

*Table 10 Tree Losses*

| Tree Types | Number of Trees | Number of AHs |
|---|---|---|
| Cherry | 27 | 3 |
| Walnut | 16 | 7 |
| Pear | 2 | 2 |
| Plum | 77 | 6 |
| Wild Plum | 1 | 1 |
| Apple | 4 | 2 |
| Hazelnut | 203 | 4 |
| **Total** | **330** | **10** |

There are no non-fruit bearing trees to be cut on the legally owned and legalizable land plots under the project impact. Some non-fruit bearing trees are located on the State forestry fund lands, and all these trees belong to the Forestry Agency (to note, these trees have not been planted by the local residents and the local residents have no legal right to cut them).

## 3.4. Vulnerable AHs

The LALRP sets out AGL's policy whereby all AHs are treated in an equal manner in terms of social vulnerability. According to the SES, only one AH is headed by a female. AGL will consider additional measures for this household that it may request based on its individual needs. These additional measures may include e.g. materials, medicines, fodder or else for the total amount of up to 1,000 GEL (e.g., during the SES, the Head of the AH noted the family needed timber materials for the house floor).

Recognizing that large part of the households in the area live below the poverty line and depend on the State pensions and allowances, AGL will pay each AH an additional allowance equal to 10% of the market value of the land being acquired[12] (but not of other assets affected), thus each AH will receive land compensation plus a markup of 10% of the land valuation amount. The Shuakhevi HPP Project LALRP also

[12] 10% markup is paid only for land acquisition and not for easement.

sets out the policy to compensate severely affected AHs losing more than 50% of their land. No severity allowance is to be paid this time, as none of the AHs lose more than 50% of their land in the frames of the Furtio re-alignment project.

# 4 Methods of Evaluating Assets

## 4.1 Overview

This section describes the methods used to determine compensation rates and the field work undertaken to ascertain sources of livelihood of the AHs.

## 4.2 Replacement Cost as the Basis for Compensation

The Project has decided to compensate for losses with cash rather than in-kind compensation.

In-kind compensation for AHs (which is required under the ADB SPS) cannot be adopted for this project due to the following reasons:

- In general, there are not sufficient available land plots in Adjara region and in particular, within the project areas (mountainous Adjara). Agricultural lands are located on eroded slopes of complex terrain. Landslides and erosion processes frequently occur, which damages the agricultural land;
- All agricultural lands adjacent to the zone of influence of the project are privatized and therefore acquisition of compensatory lands from the state is practically impossible;
- Almost every potential arable land plot is already in use. The remaining land is largely unused for livelihood purposes, with the exception of some grazing;
- Due to the lack of agricultural lands within the project region, AGL will not able to replace affected land plots with other lands (payment in kind), since through purchasing land plots from other families, arable land access challenges would be transferred from one family to another.

IFC, EBRD and ADB require replacement cost to be the basis of cash compensation for mitigating losses when in-kind compensation (i.e. land for land) is not possible. Replacement cost is defined as the market value of the assets plus transaction costs. Depreciation of structures and assets is not taken into account. APs should not have to use their own financial resources in replacing assets of similar value. This means replacement costs incorporates relevant transfer taxes, registration fees, and any other costs for land acquisition.

## 4.3 Determination of Compensation Values

This section describes how valuing of assets was carried out. The methodology for valuing various assets is summarized below:

## 4.4 Land Valuation

The sales comparison method was used to set the monetary value of the affected land plots. This method implies comparing the object to be assessed to other objects with the market value known (i.e. the land plot in question was sold or bought). Land plots subject to valuation are located in Furtio.

The land plots to be evaluated are different with their locations, shapes, parameters, soil structure, designation and other data. Thus, the land plots were classified into various groups. Following groups of land were identified:

(i) Non-arable land plots situated alongside the central highway and have commercial value due to proximity to central highway.
(ii) Arable land plots situated near the central highway and residential house used for cultivating and harvesting agricultural crops (annual and /or perennial).
(iii) Arable/non-arable land plots situated far from the central highway and residential house and used for ploughing, mowing and/or growing orchards.
(iv) Plots of land part of which belongs to III group and part belongs to V group.
(v) Arable plots of land situated far from the central highway and residential house, do not have a border with them, have no trace of cultivation and presumably are not used for harvesting crops (pastures);
(vi) Plots of land part of which belongs to V group and part of which belongs to VII group.
(vii) Arable, non-cultivation land plots which do not belong to I-VI type, are not used for harvesting crops and surface of which are downhill or steep. Presumably, these plots are used for mowing and/or perennial plants.

In order to evaluate plots of lands market segment as well as prices registered in agreements and contracts signed on analogical real estate have been analysed which was undertaken within the borders of above-mentioned village.

In the process of evaluation conducted by Expert 21, in order to define market price of plots, the valuator company (Expert 21) has obtained data about analogues which are based on the deals provided by National Agency of Public Registry. The most recent sales and transaction of land recorded in the area appeared to occur in 2017. Analogues for defining the market price of land were searched for an analogical goal – based on agreements signed on compensation for plots of land affected by different projects. Results of oral inquiries with population about analogues were also taken into account. Source of information is presented in Table 11 which also contains corrections made for plots of land which appeared under the electricity transmission line RoW (in GEL, unit 1.00 sq.m.).

*Table 11 Analogues*

| Description | Object of evaluation | Analogue 1 | Analogue 2 | Analogue 3 |
|---|---|---|---|---|
| District | Shuakhevi | Shuakhevi | Shuakhevi | Shuakhevi |
| Address | Furtio | Furtio | Furtio | Furtio |
| Type of transaction | Sale | Sale | Sale | Sale |
| Date of sale (offer) | Ongoing | 24-10-17 | 08-09-17 | 30-03-17 |
| Source | - | Deal | Deal | Deal |

| Description | Object of evaluation | Analogue 1 | Analogue 2 | Analogue 3 |
|---|---|---|---|---|
| Buyer | | Adjaristsqali Georgia LLC | Adjaristsqali Georgia LLC | Adjaristsqali Georgia LLC |
| Seller | | Levan Khiladze | Anzor Dumbadze | Archil Khiladze |
| Type of property | Land Plot | Land Plot | Land Plot | Land Plot |
| Area of plot, sq.m. | 1 | 106 | 132 | 34 |
| Entire amount of deal, GEL | | 1,482 | 1,833 | 303 |
| Price of 1 sq.m, GEL | | 13.98 | 13.89 | 8.91 |
| Purpose | **Agricultural** | *Agricultural* | *Agricultural* | *Agricultural* |
| Correction | | 0% | 0% | 0% |
| | | 0 | 0 | 0 |
| Corrected price | | **1482** | **1833** | **303** |
| **Use** | **Residential** | **Residential** | **Residential** | **Mowing** |
| | | 0% | 0% | 15% |
| | | 0 | 0 | 45 |
| | | **1482** | **1833** | **348** |
| **Market Conditions (time)** | **Ongoing** | Two Years | Two Years | Two Years |
| Correction | | 25% | 25% | 25% |
| | | 371 | 458 | 87 |
| Corrected price | | **1853** | **2291** | **436** |
| **Location** | Furtio | Furtio | Furtio | Furtio |
| Correction | | 0% | 5% | 0% |
| | | 0 | 115 | 0 |
| Corrected price | | **1853** | **2406** | **436** |
| **Description** | Plane | Analogical | Analogical | Slope |
| Correction | | 0% | 0% | 5% |
| | | 0 | 0 | 22 |
| Corrected price | | **1853** | **2406** | **457** |
| Total Correction | Amount | 1853 | 2406 | 457 |
| | % | 25 | 31 | 51 |
| | Coefficient | 1.25 | 1.31 | 1.51 |
| Final corrected price of sale 1 sq.m | | 17.48 | 18.23 | 13.45 |

**Comment for correction:**

- First correction envisages purpose of land (arable, non-arable);
- Second correction envisages use of land (residential, for ploughing-seeding, for harvesting annual crops, mowing plots, pastures, plots under orchard and etc.)
- Third correction envisages market conditions, namely, differences between dates of providing sold plots and changes on real estate market;
- Fourth correction envisages location of plot, namely, its distance from highway, settlement, different

infrastructures, etc.)

- Fifth correction is made in compliance with physical peculiarities (area, parameters, structure, etc.)

**Estimating the land compensation value**

As a result of analyzing analogues and studying corrected prices of the data, estimation of price unit of plots of land to be estimated was carried out by means of calculating average weighted value. In the process of agreeing corrected prices, more weight will be given to those analogues which stand the closest for comparison with the object and in which the smallest correction was made.

Unit price value (by using average weighted value) of plots of land to be evaluated was calculated by means of the following formula:

$$V_{wa} = \sum_{i=1}^{n} \left\{ P_i * \left( R_i / \sum_{i=1}^{n} R \right) \right\}$$

**Vwa** – average weighted value;

**Pi** – corrected price of each analogue.

**∑ R** – sum of rating weights of corrected price of analogues to be compared

**Ri** – rating weight of corrected price of each object to be compared.

Thus, calculation of market price of the object implemented by means of average weighted value is given in Table 12 and Table 13.

**Note:** prices of plots were estimated by considering current demand-supply conditions of the market and factors that influence the price (purpose, use, distance from leisure and recreational areas, distance from highways, communications, etc.). For this purpose, we have studied information on Georgian real estate market which is based on the existing deals on the market and information on deals provided by National Agency of Public Registry. Basic price was estimated in terms of arable plot of land. Correlation between estimated price and the prices of the remaining plots was identified according to this information.

*Table 12 Prices of Analogues*

| Description | Pi | Ri | Vi |
|---|---|---|---|
| Price of the corrected analogue No. 1 | 17.48 | 1.25 | 5.36 |
| Price of the corrected analogue No. 2 | 18.23 | 1.31 | 5.87 |
| Price of the corrected analogue No. 3 | 13.45 | 1.51 | 4.99 |
| **∑ R** | | **4.07** | |
| **Vwa** | | | **16.23** |

| | | | |
|---|---|---|---|
| **Corrected market value of 1 sq.m land to be evaluated, Gel** | | | **16.23** |

As a result of easements to be exercised through servitude agreements, land use restrictions to project affected land parcels will limit the potential best use of land parcels. This means that PAPs will maintain ownership/possession rights to project affected land parcels and still be allowed to cultivate for agricultural purposes, but no structures/tall trees (higher than 4m) will be allowed. Compensation levels for easement will be the same for the informal users. Pre-project market value of a land parcels will be diminished to some extent; more specifically, land parcels will only be valid for growing annual crops and species of perennial crops that do not grow higher than 4 m. The easement price of the land is derived as a difference between the market cost of this type of land at present (before the project) and after the project impact (land use restrictions imposed). Thus, the land costs for various the land plots were estimated as follows:

*Table 13 Calculation of the easement compensation amounts of the land plots for different types and functions*

| # | Land Categories | Compensation rate for 1 sq.m of land in GEL | Compensation rate for servitude per 1 sq.m of land in GEL |
|---|---|---|---|
| 1 | Non-arable land plots situated alongside the central highway and have commercial value due to proximity to central highway | **21.10** | **10.55** |
| 2 | Arable land plots situated near the central highway and residential house used for cultivating and harvesting agricultural crops (annual and /or perennial) | **19.48** | **8.93** |
| 3 | Arable/non-arable land plots situated far from the central highway and residential house and used for ploughing, mowing and/or growing orchards. | **16.23** | **5.68** |
| 4 | Plots of land part of which belongs to III group and part belongs to V group. | **13.80** | **3.25** |
| 5 | Arable plots of land situated far from the central highway and residential house, do not have a border with them, have no trace of cultivation and presumably are not used for harvesting crops (pastures); | **10.55** | **1.58** |
| 6 | Plots of land part of which belongs to V group and part of which belongs to VII group. | **8.93** | **1.34** |
| 7 | Arable, non-cultivation land plots which do not belong to I-VI type, are not used for harvesting crops and surface of which are downhill or steep. Presumably, these plots are used for mowing and/or perennial plants | **6.49** | **0.97** |

## 4.5 Compensation for Trees

Price of perennial plants is estimated according to its age. Price of fruit trees is calculated by means of multiplying market price of annual harvest with the number of years that will be necessary for new perennial plants to reach the age of existing trees.

Evaluation of fruit trees was carried out by means of the following formula:

$$Q = pY+0,15pY-0,25pY \quad [a_f - x]^1, \ [x - 1]^2, \ [a_s - 1]^3 \quad a_s < x < a_f,$$

where:

**Q** – compensation rate of perennial trees;

**N** – retail price of the sapling

**p** – retail price of fruit/product which is identified according to the current market prices;

**Y** – estimation of harvest in kg which is identified according to information provided in Monograph on Fruit-growing in Georgia written by doctor of Statistics Department and Agricultural Sciences, true member of Academy of Agricultural Sciences of Georgia and Russia, nominee of state award of Georgia, Mr. Gogotur Agladze, volume III (1973) and volume IV (1978).

0,15**pY** – expenses related to planting and nursing plants before the age of harvesting;

0,25**pY** – gardening, harvesting, storing, supplying and other ongoing expenses;

**X** – current age of perennial plants which is identified as a result of visual observation of plant and inquiring the owner;

**a**s – age of starting full fructification, based on information provided by specialists;

**a**f – age of finishing fructification, based on information provided by specialists;

1 – number of years left till the end of fructification of concrete species of tree;

2 – number of years necessary for growing to the current age of tree;

3 – number of years the tree needs to reach full fructification.

**Note:** one from versions 1, 2, and 3 will be used according to its relevance (with priority of fewer years), it will be used to identify the amount of compensation of lost income for specific tree.

**Note:** The replacement price of fruit trees was calculated by estimating the market value of fruit to be lost by the affected family during the time it would take to grow a replacement tree to fruit-bearing maturity (i.e. for five or eight years, depending on tree type). This involved multiplying the annual average harvest of each fruit tree type by the market price per kilo in order to establish an annual cost, then multiplying this by the number of years that a replacement tree would take to reach maturity, i.e. 8 years for walnut, quince and mulberry trees, and 5 years for other trees.

*Table 14 Compensation Rate for Perennial Crops*

| Plant | Age group | Saplings, GEL | Price of harvest in units, GEL | Number of years to be compensated (time needed to reach maturity) | Total productivity per year, kg | Compensation for one-year harvest including expenses to be made (GEL) | | | | Total compensation for adult perennial plant (GEL) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Income from selling | Expenses related to taking care of, growing of plants | Expenses related to taking-supplying the harvest | Expected profit per year including expenses | |
| Cherry | Young plant (<5) | 5 | 3.00 | 5 | 3 | 9.00 | 1.35 | 2.70 | 7.65 | 43.25 |
| | 5-10 | 5 | 3.00 | 5 | 10 | 30.00 | 4.50 | 9.00 | 25.50 | 132.50 |
| | 10-20 | 5 | 3.00 | 5 | 16 | 48.00 | 7.20 | 14.40 | 40.80 | 209.00 |
| | 20+ | 5 | 3.00 | 5 | 10 | 30.00 | 4.50 | 9.00 | 25.50 | 132.50 |
| Peach | Young plant (<5) | 6 | 2.00 | 5 | 4 | 8.00 | 1.20 | 2.40 | 6.80 | 40.00 |
| | 5-10 | 6 | 2.00 | 5 | 15 | 30.00 | 4.50 | 9.00 | 25.50 | 133.50 |
| | 10-20 | 6 | 2.00 | 5 | 40 | 80.00 | 12.00 | 24.00 | 68.00 | 346.00 |
| | 20+ | 6 | 2.00 | 5 | 25 | 50.00 | 7.50 | 15.00 | 42.50 | 218.50 |
| Apricot | Young plant (<5) | 4 | 2.50 | 5 | 3 | 7.50 | 1.13 | 2.25 | 6.38 | 35.88 |
| | 5-10 | 4 | 2.50 | 5 | 15 | 37.50 | 5.63 | 11.25 | 31.88 | 163.38 |
| | 10-20 | 4 | 2.50 | 5 | 40 | 100.00 | 15.00 | 30.00 | 85.00 | 429.00 |
| | 20+ | 4 | 2.50 | 5 | 25 | 62.50 | 9.38 | 18.75 | 53.13 | 269.63 |
| Walnut | Young plant (<8) | 10 | 7.00 | 5 | 4 | 28.00 | 4.20 | 8.40 | 23.80 | 129.00 |
| | 8-10 | 10 | 7.00 | 8 | 15 | 105.00 | 15.75 | 31.50 | 89.25 | 724.00 |
| | 10-20 | 10 | 7.00 | 8 | 30 | 210.00 | 31.50 | 63.00 | 178.50 | 1438.00 |
| | 20+ | 10 | 7.00 | 8 | 50 | 350.00 | 52.50 | 105.00 | 297.50 | 2390.00 |
| Quince | Young plant (<5) | 4 | 2.00 | 5 | 3 | 6.00 | 0.90 | 1.80 | 5.10 | 29.50 |
| | 5-10 | 4 | 2.00 | 8 | 15 | 30.00 | 4.50 | 9.00 | 25.50 | 208.00 |
| | 10-20 | 4 | 2.00 | 8 | 30 | 60.00 | 9.00 | 18.00 | 51.00 | 412.00 |
| | 20+ | 4 | 2.00 | 8 | 20 | 40.00 | 6.00 | 12.00 | 34.00 | 276.00 |
| Pear | Young plant (<5) | 4 | 1.80 | 5 | 7 | 12.60 | 1.89 | 3.78 | 10.71 | 57.55 |
| | 5-10 | 4 | 1.80 | 5 | 20 | 36.00 | 5.40 | 10.80 | 30.60 | 157.00 |

| Plant | Age group | Saplings, GEL | Price of harvest in units, GEL | Number of years to be compensated (time needed to reach maturity) | Total productivity per year, kg | Compensation for one-year harvest including expenses to be made (GEL) | | | | Total compensation for adult perennial plant (GEL) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Income from selling | Expenses related to taking care of, growing of plants | Expenses related to taking-supplying the harvest | Expected profit per year including expenses | |
| | 10-20 | 4 | 1.80 | 5 | 70 | 126.00 | 18.90 | 37.80 | 107.10 | 539.50 |
| | 20+ | 4 | 1.80 | 5 | 45 | 81.00 | 12.15 | 24.30 | 68.85 | 348.25 |
| Plum | Young plant (<5) | 4 | 1.50 | 5 | 8 | 12.00 | 1.80 | 3.60 | 10.20 | 55.00 |
| | 5-10 | 4 | 1.50 | 5 | 15 | 22.50 | 3.38 | 6.75 | 19.13 | 99.63 |
| | 10-20 | 4 | 1.50 | 5 | 30 | 45.00 | 6.75 | 13.50 | 38.25 | 195.25 |
| | 20+ | 4 | 1.50 | 5 | 20 | 30.00 | 4.50 | 9.00 | 25.50 | 131.50 |
| Mulberry | Young plant (<5) | 5 | 5.00 | 5 | 4 | 20.00 | 3.00 | 6.00 | 17.00 | 90.00 |
| | 5-10 | 5 | 5.00 | 8 | 10 | 50.00 | 7.50 | 15.00 | 42.50 | 345.00 |
| | 10-20 | 5 | 5.00 | 8 | 16 | 80.00 | 12.00 | 24.00 | 68.00 | 549.00 |
| | 20+ | 5 | 5.00 | 8 | 10 | 50.00 | 7.50 | 15.00 | 42.50 | 345.00 |
| Hazelnut | Young plant (<5) | 1 | 4.00 | 3 | 2 | 8.00 | 1.20 | 2.40 | 6.80 | 21.40 |
| | 5-10 | 1 | 4.00 | 5 | 5 | 20.00 | 3.00 | 6.00 | 17.00 | 86.00 |
| | 10-20 | 1 | 4.00 | 5 | 6 | 24.00 | 3.60 | 7.20 | 20.40 | 103.00 |
| | 20+ | 1 | 4.00 | 5 | 4 | 16.00 | 2.40 | 4.80 | 13.60 | 69.00 |
| Wild Plum | Young plant (<5) | 3 | 1.00 | 5 | 7 | 7.00 | 1.05 | 2.10 | 5.95 | 32.75 |
| | 5-10 | 3 | 1.00 | 5 | 15 | 15.00 | 2.25 | 4.50 | 12.75 | 66.75 |
| | 10-20 | 3 | 1.00 | 5 | 50 | 50.00 | 7.50 | 15.00 | 42.50 | 215.50 |
| | 20+ | 3 | 1.00 | 5 | 25 | 25.00 | 3.75 | 7.50 | 21.25 | 109.25 |
| Apple | Young plant (<5) | 4 | 1.80 | 5 | 5 | 9.00 | 1.35 | 2.70 | 7.65 | 42.25 |
| | 5-10 | 4 | 1.80 | 5 | 25 | 45.00 | 6.75 | 13.50 | 38.25 | 195.25 |
| | 10-20 | 4 | 1.80 | 5 | 70 | 126.00 | 18.90 | 37.80 | 107.10 | 539.50 |
| | 20+ | 4 | 1.80 | 5 | 40 | 72.00 | 10.80 | 21.60 | 61.20 | 310.00 |
| Grapes/vine | Young plant (<5) | 2 | 1.00 | 5 | 5 | 5.00 | 0.75 | 1.50 | 4.25 | 23.25 |
| | 5-10 | 2 | 1.00 | 5 | 7 | 7.00 | 1.05 | 2.10 | 5.95 | 31.75 |
| | 10-20 | 2 | 1.00 | 5 | 9 | 9.00 | 1.35 | 2.70 | 7.65 | 40.25 |

| Plant | Age group | Saplings, GEL | Price of harvest in units, GEL | Number of years to be compensated (time needed to reach maturity) | Total productivity per year, kg | Compensation for one-year harvest including expenses to be made (GEL) | | | | Total compensation for adult perennial plant (GEL) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Income from selling | Expenses related to taking care of, growing of plants | Expenses related to taking-supplying the harvest | Expected profit per year including expenses | |
| | 20+ | 2 | 1.00 | 5 | 5 | 5.00 | 0.75 | 1.50 | 4.25 | 23.25 |
| Cornel | Young plant (<5) | 3 | 2.80 | 5 | 2 | 5.60 | 0.84 | 1.68 | 4.76 | 26.80 |
| | 5-10 | 3 | 2.80 | 5 | 3 | 8.40 | 1.26 | 2.52 | 7.14 | 38.70 |
| | 10-20 | 3 | 2.80 | 5 | 4 | 11.20 | 1.68 | 3.36 | 9.52 | 50.60 |
| | 20+ | 3 | 2.80 | 5 | 3 | 8.40 | 1.26 | 2.52 | 7.14 | 38.70 |
| Persimmon/Japanese apple | Young plant (<5) | 2 | 0.60 | 5 | 5 | 3.00 | 0.45 | 0.90 | 2.55 | 14.75 |
| | 5-10 | 2 | 0.60 | 5 | 10 | 6.00 | 0.90 | 1.80 | 5.10 | 27.50 |
| | 10-20 | 2 | 0.60 | 5 | 30 | 18.00 | 2.70 | 5.40 | 15.30 | 78.50 |
| | 20+ | 2 | 0.60 | 5 | 20 | 12.00 | 1.80 | 3.60 | 10.20 | 53.00 |
| Fig | Young plant (<5) | 3 | 4.00 | 5 | 5 | 20.00 | 3.00 | 6.00 | 17.00 | 88.00 |
| | 5-10 | 3 | 4.00 | 5 | 10 | 40.00 | 6.00 | 12.00 | 34.00 | 173.00 |
| | 10-20 | 3 | 4.00 | 5 | 30 | 120.00 | 18.00 | 36.00 | 102.00 | 513.00 |
| | 20+ | 3 | 4.00 | 5 | 20 | 80.00 | 12.00 | 24.00 | 68.00 | 343.00 |
| Pomegranate | Young plant (<5) | 4 | 4.00 | 5 | 5 | 20.00 | 3.00 | 6.00 | 17.00 | 89.00 |
| | 5-10 | 4 | 4.00 | 5 | 10 | 40.00 | 6.00 | 12.00 | 34.00 | 174.00 |
| | 10-20 | 4 | 4.00 | 5 | 30 | 120.00 | 18.00 | 36.00 | 102.00 | 514.00 |
| | 20+ | 4 | 4.00 | 5 | 20 | 80.00 | 12.00 | 24.00 | 68.00 | 344.00 |
| Berries | Young plant (<5) | 2 | 6.00 | 5 | 2 | 12.00 | 1.80 | 3.60 | 10.20 | 53.00 |
| | 5-10 | 2 | 6.00 | 5 | 3 | 18.00 | 2.70 | 5.40 | 15.30 | 78.50 |
| | 10-20 | 2 | 6.00 | 5 | 4 | 24.00 | 3.60 | 7.20 | 20.40 | 104.00 |
| | 20+ | 2 | 6.00 | 5 | 3 | 18.00 | 2.70 | 5.40 | 15.30 | 78.50 |
| Cherry laurel | Young plant (<5) | 2 | 2.00 | 5 | 2 | 4.00 | 0.60 | 1.20 | 3.40 | 19.00 |
| | 5-10 | 2 | 2.00 | 5 | 10 | 20.00 | 3.00 | 6.00 | 17.00 | 87.00 |
| | 10-20 | 2 | 2.00 | 5 | 20 | 40.00 | 6.00 | 12.00 | 34.00 | 172.00 |
| | 20+ | 2 | 2.00 | 5 | 15 | 30.00 | 4.50 | 9.00 | 25.50 | 129.50 |

## 4.6 Building Valuation

Buildings under project impact have been valued at replacement cost based on the direct and indirect costs at market value necessary for the construction of a comparable building i.e. what construction of a building of similar parameters would cost today. No deductions were made for amortization. The parameters for calculating the direct and indirect costs are the following as applicable to individual cases.

*(The detailed description of building valuation is provided in Appendix B.* Valuation Matrix of the Affected Building*)*

a. Direct costs include:

   (i) Salaries of workers;
   (ii) Purchase of construction materials;
   (iii) Preparatory expenses;
   (iv) Rent or purchase of equipment;
   (v) Profit and overhead expenses of the constructor;
   (vi) Expenses incurred to ensure safety measures during the construction/repair;
   (vii) The cost of arranging temporary structures;
   (viii) Temporary communications (electricity, water, gas supply etc.);
   (ix) Warehouse costs;
   (x) Transportation costs;
   (xi) Other costs

b. Indirect costs include:

   (i) Cost of professional services:
      1. Compensation of thearchitect/designer;
      2. Compensation for engineeringservices;
      3. Legal expenses;
      4. Compensation for valuator'sservices;
      5. Other expenses.
   (i) Expenses incurred to receive permits;
   (ii) Insurance costs;
   (iii) Financing %;
   (iv) Guarantee necessary to secure the contract implementation by the contractor building the new building;
   (v) Other costs

c. Structure (wooden hut) – 3,870 GEL

# 5 Land Acquisition and Compensation Process

## 5.1 Overview

The LALRP 2014 identifies the institutional framework and key processes for undertaking land acquisition and compensating AHs for the Project impacts. This section summarizes the institutional framework for managing the Project impacts, eligibility and the entitlement matrix.

## 5.2 Institutional Framework

To implement the Annex a variety of role players from the government, civil society and private sector are involved. The LALRP 2014 describes in text and pictorially the relationship among the various role players.

AGL, as the Project Proponent, has overall responsibility for the Project including for the preparation, implementation and financing of all the Furtio Re-alignment-related land acquisition and livelihood restoration tasks. AGL has assigned New Metal Georgia as a construction contractor responsible also for land measurement and valuation of assets for this Annex.

Following land acquisition for the 35kV line, a Resettlement Evaluator will be hired by AGL to undertake a Completion Audit and confirm for lenders that the implementation of land acquisition and resettlement has been completed according to the LALRP (and its 35kV line addendum and annexes thereto), meeting the objectives of the LALRP and the lenders' involuntary resettlement safeguard policies.

Lenders need to approve this Annex to ensure their safeguard policies are being considered. As part of the financial agreement, lenders will also provide clearance for initiation of civil works after the implementation of this Annex.

## 5.3 Eligibility Cut-off date

Under Georgian law only registered owners are entitled to be compensated for land and any property. Under IFC, EBRD and ADB standards, unregistered owners and users are also eligible for compensation in addition to those who have legal entitlement. AGL has elected to treat registered and unregistered land and property owners and users equally. Provided the user can prove through testimonies from neighbors and local officials that the asset is theirs, AGL will fully compensate them. AGL will acquire assets that are free of any encumbrances and to the extent possible do not affect any households other than themselves. Where this is not possible, users will be compensated regardless of registration status.

The eligible AHs covered in this Annex include:

- AHs with registered title of the property;
- Informal users of land plots.

Eligibility is also affected by timing of asset occupancy. The eligibility cut-off date was declared on **5th September 2019** (i.e., the completion date of the DMS), and this was communicated to the affected households during the DMS as presented in **Section 6**.

## 5.4 Compensation Entitlements

A principle of this Furtio Re-Alignment Annex to the 35 kV line LALRP Addendum is that affected livelihoods will be restored to pre-project standards and if possible improved. Entitlement will be based on type of loss and in some cases AH characteristics. An AP or AH may suffer various losses and be eligible for various allowances. Documentation of ownership or occupancy and compensation arrangements will be issued in the names of both spouses or heads of household.

AGL will implement compensation and livelihood restoration measures based on the LALRP 2014 entitlement matrix, however using the current asset estimates, as per Section 4. Table 15 summarizes entitlements to be provided to the APs.

*Table 15 Entitlements Provided to APs*

| Entitlements | Unit | Amount | Remarks |
|---|---|---|---|
| Land | $m^2$ | Land purchase Compensation range 6.49 - 21.10 GEL<br><br>Servitude One-Off Compensation range 0.97 - 10.55 GEL | Sales comparison method was used for estimating the land compensation value. The land was grouped into 7 categories and prices were determined for compensation of purchased land and the land under long-term partial impact (one-off compensation under servitude agreement). |
| Walnut, Quince and Mulberry Trees | Annual average harvest market price per kg x 8[13] | Various | The multiplier eight takes into account providing replacement value of tree, to reflect the one-off nature of the payment for multi-year cash income payments. |
| Other Fruit Trees | Annual average harvest market price per kg x 5 | Various | The multiplier eight takes into account providing replacement value of tree, to reflect the one-off nature of the payment for multi-year cash income payments. |
| Commercial structure | $m^2$ | | Based on independent valuation of replacement cost |
| Vulnerability allowance | Lump sum | 10% of land Valuation only for permanent land lost Materials worth of 1000 GEL | All land valuations to be increased by 10% as vulnerability allowance. Plus, materials worth of 1000 GEL per women headed AH. |
| Livelihood restoration | AH | No price equivalent available | AHs with archival papers will receive help in registering their land. AHs will be provided with chemicals and fruit tree saplings. |

[13] The replacement price of fruit trees was calculated by estimating the market value of fruit to be lost by the affected family during the time it would take to grow a replacement tree to fruit-bearing maturity (i.e. for five or eight years, depending on tree type). This involved multiplying the annual average harvest of each fruit tree type by the market price per kilo in order to establish an annual cost, then multiplying this by the number of years that a replacement tree would take to reach maturity, i.e. 8 years for walnut, quince and mulberry trees, and 5 years for other trees.

# 6 Stakeholder Engagement

## 6.1 Overview

This section of the Annex outlines consultation and participation requirements taking into account international requirements that APs be meaningfully consulted and have opportunities to participate in the planning and implementation of land acquisition and livelihood restoration. This section describes the information disclosure and consultation activities that have been undertaken for the Project to ensure that APs are fully aware of their land acquisition and livelihood restoration entitlements and options. As part of AGL's on-going commitment to good corporate governance and to project stakeholders, a Stakeholder Engagement Plan (SEP) has designed to meet international best practices and the laws of the GoG. For the 35kV OTL a separate SEP has been developed to ensure proper engagement of stakeholders throughout the life of the project particularly to cover construction regime of the transmission line.

## 6.2 Information Disclosure, Consultation and Participation

The first interaction with local residents about the route change happened in early March 2019 when NMG and Expert 21 met with the representative of Shuakhevi Mayor in Zamleti Community, and his deputy and several residents at the Zamleti community house and informed about the possible changes. Then, on March 17, 2019, before AGL initiated the SES, AGL together with NMG conducted informational meetings with the residents of Furtio village and informed about the route change. A preliminary identification of possible affected landowners and land plots was carried out together with 2 invited geologist and Expert 21 who also undertook the inventory of assets. AGL and NMG provided information about the 35kV OTL project in general, its purpose and the route, also briefed about the land acquisition process; the locals mentioned that most of their land plots were not registered, but AGL explained company's policy was that both legal and informal users are entitled to compensation. AGL also informed the village head and the AHs about the forthcoming visits of (i) archaeologists for screening the project area and (ii) sociologists to undertake the SES. Table 16 below provides a summary of the meetings carried out with the AHs.

*Table 16 Summary of meetings conducted*

| Date | Communication Method & Information Provided |
|---|---|
| March 4 | NMG together with Expert 21 conducted a meeting with Furtio villagers and informed them about the route change. |
| March 17 | NMG, Expert 21 and AGL met the residents, provided more details of the re-routing, talked about the land acquisition process, Expert 21 undertook a preliminary identification of the possibly affected land owners/users. |

| | |
|---|---|
| April 1 | Archeological screening |
| June 27-28 | SES field visits - Independent consultant met with the AHs and conducted the survey. |
| July 5-6 | Phone call round - Independent consultant called the AHs and proposed several options for the livelihood restoration activities. |
| August-September | DMS - Expert 21 undertook the asset valuation and collected the data. |
| October 17 | Field visit - AGL representative met the AHs and discussed the draft entitlement matrix. She once again confirmed about the livelihood restoration activities, also provided information about the grievance handling mechanism, gave contact information of the SES. Prior to the meeting, the local women were specifically invited to the meeting, but they did not come. |

According to the Environmental Assessment Code of Georgia[14], AGL submitted an EIA Screening Statement to the Ministry of Environmental Protection and Agriculture of Georgia for the review. The Screening Report was prepared by Gamma Consulting and covered all changes including the Furtio section along with an archaeological survey report. Based on the Screening Decision issued by the Ministry since the changes in the Project did not incur any significant impacts, it was not required to undergo national EIA procedures. Therefore, public hearings for the route change have not been carried out. Though, AGL carried out consultation activities irrespective to national requirements.

## 6.3 Socio-Demographic Profile Future Disclosure, Consultation and Participation

This Annex to the Addendum to the LALRP will be disclosed to the AHs upon the approval by Lenders and disclosed via AGL's website, land acquisition will commence following the approval of this report by Lenders. A copy of this Annex will be available at Khichauri Camp which serves as a PIC for Shuakhevi Municipality. During the implementation phase AGL will continue to consult the APs on various issues individually as required, and the consultations and information disclosure will be conducted as per the 35 kV OTL SEP and the overall Shuakhevi HPP SEP.

[14] https://matsne.gov.ge/ka/document/view/3691981?publication=2

# 7 Grievance Management and Redress

## 7.1 Overview

AGL aims to engage with stakeholders on land acquisition and resettlement in a manner that is conciliatory, fair and transparent. Care will always be taken to prevent grievances rather than going through a redress process. Through careful land acquisition design and implementation, by ensuring full participation and consultation with the APs, and establishing extensive communication and coordination among the various implementation entities, AGL will try to prevent grievances. A grievance can be defined as an actual or perceived problem that might give grounds for complaint. Nonetheless, APs may find disagreeable a decision, practice or activity related to land acquisition and resettlement. This section summarizes the resettlement redress mechanism for the Project and discusses its use to date for the Project.

## 7.2 Project Grievance Redress Tenets

The following tenets underlie the grievance redress mechanism:

- APs are fully informed of their rights and of the procedures for addressing complaints whether verbally or in writing during consultation, survey, and at the time of compensation;
- Each grievance is registered, its receipt acknowledged, and tracked until closure;
- All grievances are processed and responded to within a reasonable period of time; and,
- The overall objective is to avoid resorting to juridical action for as many grievances as possible. Language, literacy and gender are not an impediment for complainants. Presentation of complaints does not incur undue costs to the complainant.

## 7.3 Grievance Resolution Process

The Project resettlement grievance resolution process is summarized in Table

| Steps | Grievance Redress Actions |
|---|---|
| **1** | AGL's Land & Social Team already has a system for logging the grievances. AGL has set up a separate registry for complaints for the 35kV line Project. |
| **2** | An AP can lodge a grievance and resolution will be attempted at an informal level with the involvement of relevant Project entities within ten days. |
| **3** | All grievances are acknowledged by the AGL and NMG within **10 days**. If immediate corrective action is available it will be taken with **5 days**; if no immediate corrective action is available, a response will be provided within **21 days**, unless there are exceptional circumstances. |

## 7.4 Grievance Recording and Logging

Grievances are recorded at the Khichauri Camp which serves as a Public Information Centre (PIC) for Shuakhevi Municipality. Where investigations are required, project staff and outside authorities, as appropriate, will assist with the process. Grievance information will be recorded in a grievance log. This information will include:

- Stakeholder name and contact details
- Details of the nature of the grievance
- Date received, responded to and closed out
- How it was submitted, acknowledged, responded to and closed out. Individuals do not have to give their name, and also can request their name be kept confidential.

AGL's current Stakeholder Engagement Specialist - Inguli Davitadze - is the point of contact for grievances and comments for the 35kV line Project, including the Furtio re-routing. Grievances and comments should be sent to the address below, where possible by using the Grievance and Information Request Form.

Name: Inguli Davitadze
Address: Khichauri Main Camp, Shuakhevi Municipality
E-mail: inguli.davitadze@agl.com.ge
Mob: 577 20 34 15
Website: www.agl.com.ge

AGL will be a grievance owner, whose responsibility is to investigate the grievance, follow up and close out. All complaints received will be registered in a log and tracked down until close out. AGL will inform NMG about the decision made on a complaint and status. During the operation phase, only AGL will be in charge of receiving, acting and solving complaints.

# 8 Livelihood Restoration Plan

## 8.1 Overview

Livelihood restoration is not necessary under Georgian laws but it is an IFC, EBRD and ADB requirement. A focus on livelihood restoration is a good strategy to help people to be better off or at least not worse off after land acquisition and resettlement implementation. The Project activities related to livelihood restoration are described below.

## 8.2 Supplemental Livelihood Activity for AHs

The SES has revealed that some AHs in Furtio cultivate fruit trees on the affected land plots. In general, the households in the village are involved in subsistence farming and rarely produce agricultural production for commercial purposes. In addition to fruit tree compensation, AGL will purchase and deliver fruit saplings to those households who would lose fruit bearing trees due to the Project activities. Saplings will be provided based on the actual number of the chopped down trees and not for the trees determined during the preliminary assessment.

AGL has proposed to the AHs several options for the livelihood restoration activities such as agricultural trainings, agricultural chemicals (pesticides), cattle vaccination, fodder, wood, seeds, consultation service of the agronomist to develop more effective and efficient farming practices. The AHs refused to participate in the proposed trainings or receive the service of the consultant; they preferred to receive agricultural chemicals for their farming activities for the next agricultural year. AGL will purchase only those registered agrochemicals, which are approved by the National Food Agency of Georgia. This will be one-time activity to be delivered in early spring of 2020, prior to agricultural works. Prior to delivering them AGL will commission an agronomist to conduct a short training course for the beneficiaries to ensure that pesticides will be used safely and appropriately.

A table below shows the baseline summary of the AHs and relevant LRP measures to be provided by the Company.

*Table 17 Summary of the AHs and LRP measures*

| AP No. | Vulnerable (specify the type of vulnerability) | Vulnerable Yes/No | AGL assistance (applicable allowance from entitlement matrix) | Preferred livelihood restoration activity | Duration of LRP implementation |
|---|---|---|---|---|---|
| **1** | Allowance for disabled | No | Servitude + fruit tree compensation | Agricultural support - Pesticides | March – May 2020 |
| **2** | N/A | No | Servitude + fruit tree compensation | Agricultural support - Pesticides + fruit tree saplings | March – May 2020 |
| **3** | Social allowance | Yes | Servitude + fruit tree compensation | Pesticides + fruit tree saplings | March – May 2020 |

| AP No. | Vulnerable (specify the type of vulnerability) | Vulnerable Yes/No | AGL assistance (applicable allowance from entitlement matrix) | Preferred livelihood restoration activity | Duration of LRP implementation |
|---|---|---|---|---|---|
| **4** | N/A | No | Servitude | Agricultural support - Pesticides | March – May 2020 |
| **5** | N/A | No | Servitude + fruit tree compensation | Agricultural support Pesticides + fruit tree saplings | March – May 2020 |
| **6** | Allowance for disabled | No | Servitude | Agricultural support Pesticides | March – May 2020 |
| **7** | Social allowance | Yes | Servitude + permanent land take + fruit tree compensation | Pesticides + fruit tree saplings + 10% mark-up | March – May 2020 |
| **8** | Military allowance | No | Servitude + fruit tree compensation | Pesticides + fruit tree saplings | March – May 2020 |
| **9** | N/A | No | Servitude | Agricultural support Pesticides | March – May 2020 |
| **10** | N/A | No | Servitude | Pesticides | March – May 2020 |
| **11** | N/A | No | Servitude | Agricultural support Pesticides | March – May 2020 |
| **12** | Social allowance | Yes | Servitude + permanent land take | Agricultural support Pesticides + 10% mark-up | March – May 2020 |
| **13** | N/A | No | Servitude + fruit tree compensation | Agricultural support Pesticides + fruit tree saplings + allowance for female head household | FHH assistance Jan 2020 / March – May 2020 |
| **14** | Social allowance | Yes | Servitude + permanent land take + fruit tree compensation | Agricultural support Pesticides + fruit tree saplings + 10% mark-up | March – May 2020 |
| **15** | N/A | No | Servitude + permanent land take + fruit tree compensation | Agricultural support Pesticides + fruit tree saplings + 10% mark-up | March – May 2020 |
| **16** | N/A | No | Servitude + permanent land take + fruit tree compensation | Agricultural support Pesticides + fruit tree saplings + 10% mark-up | March – May 2020 |

## 8.3 Allowances to support Livelihood Restoration

An allowance in the amount of 10% of the permanently lost land's value will be additionally provided to the relevant AHs in order to support their livelihood restoration, as per the 2014 LALRP for the Shuakhevi HPP Project.

*Furtio Re-Alignment Annex, 35kV Skhata-Shuakhevi Transmission Line Addendum to the LALRP, 2019*

## 8.4 Legalization of Land Ownership

The large majority of the potential APs have land that is unregistered. During the land acquisition and resettlement process, where AHs have the required documents, AGL through the LALRP 2014 has committed to formally registering their land. AGL will pay the costs related to this registration.

# 9 Monitoring, Evaluation and Reporting

## 9.1 Overview

Monitoring, evaluation, and reporting are key components of the resettlement and compensation program. The LALRP tasks, including this Annex, will be subjected to both internal and external monitoring. Internal monitoring will be conducted by AGL, assisted as necessary by the project supervision consultant, as well as by APs as appropriate. External monitoring will be assigned to an independent organization with expertise in resettlement and compensation issues and with the resettlement requirements of Georgia law and international financial institutions. This section presents the process for on-going monitoring and evaluation.

## 9.2 Internal Monitoring

AGL's land and social team comprises six full time team members who follow the effectiveness and progress on:

- Information disclosure and consultation with AHs;
- Status of asset acquisition and compensation payments;
- If required, relocation of AHs and their assets as well as community services and infrastructure; and
- Income and livelihood restoration activities.

Information sources include the field survey data (detailed measurement, AH census and SES) as well as consultation results (formal and informal interviews with AHs and other stakeholders in individual and group meetings). Indicators for monitoring will be those related to process, outputs and outcomes. Monitoring will consider special measures and activities to address inclusion and diversity as well as vulnerability impacts. To the greatest extent possible, AH profiles and gender disaggregated data will be included in monitoring reports.

Internal monitoring results will be included in reports to lenders. This reporting requirement are reflected in the Environmental and Social Monitoring Plan for the 35kV Transmission Line and in the lender financing agreements.

## 9.3 External Monitoring

The Project will be subject to external monitoring of the implementation of this Annex for the first year to ensure that living conditions of the AHs have not deteriorated. The External monitors will review the internal monitoring findings and verify through bi-annual site visits. The external monitoring will be undertaken by appropriately qualified and experienced third-party specialists to be agreed by AGL and the lenders.

## 9.4 Resettlement Completion Audit

Resettlement Completion Audit will be undertaken by the Resettlement Evaluator to be hired by AGL to undertake a completion audit of the land acquisition and livelihood restoration process for the entire Shuakhevi project, including the Furtio re-routing. The requirements to the Audit are set out in the 2014 LALRP of the Shukhavi HPP project and in Lender standards. If monitoring activities show that the livelihood of the people below the poverty line has not improved, AGL will take additional livelihood restoration measures.

# 10 Schedule and Budget

## 10.1 Overview

This section presents the project's land acquisition schedule and budget.

## 10.2 Schedule

To implement this Annex a variety of role players from the government, civil society and private sector are involved. Land acquisition can take several months to follow the required processes and ensure involvement of appropriate organizations. Implementation of this Annex must be confirmed with a no-objection from the Lenders prior to commencing construction activities at the affected sites. Table 18 provides schedule of the re-routing project activities.

*Table 18 Project Schedule*

| Step | Action | Responsibility | Status |
|---|---|---|---|
| Land acquisition preparation | | | |
| a) | Finalization of the new route | NMG | Completed |
| b) | Land measurements and collection of cadastral and land parcel maps | NMG | Competed |
| Information Disclosure | | | |
| a) | Inform community head and the residents about the changed route | AGL/NMG | Completed |
| b) | Carry out field surveys (detailed measurement survey, census and socio-economic) | NMG/AGL | Completed |
| c) | Prepare entitlement matrix and discuss it with the AHs | Independent Consultant / AGL | Completed |
| d) | Implement grievance redress mechanism | AGL | Ongoing |
| e) | Finalize this Annex to the 35 kV LALRP Addendum and submit to Lenders for approval | Independent Consultant / AGL | Near completion |
| f) | Upon approval by the Lenders disclose this Annex to the 35kV LALRP Addendum via the Company website and make a hard copy available at Khichauri camp | AGL | November 2019 |
| Negotiated Settlements & Implementation of entitlement matrix | | | |
| a) | Commence land legalization process | AGL | November 2019 |
| b) | Undertake negotiations, sign contracts, and disburse cash compensation | AGL / NMG | November-December 2019 |
| c) | Implement livelihood assistance activities | AGL | Mar-May 2020 |
| Monitoring & Reporting | | | |

| Step | Action | Responsibility | Status |
|---|---|---|---|
| a) | Internal monitoring with monthly reports to management/lenders | AGL | Ongoing to end of implementation |
| b) | Livelihood restoration external monitoring with semi-annual reports to Lenders | AGL | Ongoing to end of implementation |
| c) | Resettlement completion audit prepared and submitted to Lenders | Resettlement evaluator | 2020 |

## 10.3 Project Budget

Table 19 presents the cost estimates and budget for land acquisition and resettlement with provisions for administrative costs and contingencies included, although it does not include any transaction fees and taxes. AGL is committed to pay all fees and taxes related to the compensations in scopes of the project and the taxes and costs will be paid on top of the compensations for the losses. The estimated total budget for the Furtio Re-alignment land acquisition and resettlement is **242,201.91 GEL** (exclusive the income tax to be paid by AGL on behalf of asset owners/users on top of this amount). The table below presents itemized budget for each loss envisaged in scope of the re-routing project.

*Table 19 Project Budget*

| Description | Unit | Amount | Total Compensation Cost GEL |
|---|---|---|---|
| Land used by private users under Permanent Impact to be Purchased (+10%) | m2 | 178.3 | 2,705.54 |
| Land used by private users under Partial long-term impact to be compensated under servitude agreements | m2 | 36,687.72 | 168,080.66 |
| Buildings | N | 1 | 3,870.00 |
| Trees | N | 330 | 35,267.35 |
| Livelihood restoration (including assistance to female headed household, purchase and delivery of fruit saplings, chemicals) | N | Lump Sum | 10,000.00 |
| **Total for Compensation and Entitlement** | | | 219,923.55 |
| Cost for Land Registration | N | 5 | 260 |
| **Subtotal** | | | 220,183.55 |
| Contingency 10% | | | 22,018.36 |
| **Total** | | | 242,201.91 |

# Appendices

# Appendix A. SES Instruments

**Questionnaire for socio-economic study of Affected Households**

**Questionnaire #_____ HH # _____ Date _____**

| | | |
|---|---|---|
| **Name, last name and personal number of HH head** | | |
| **Telephone number** | | |
| **Total area of land used by HH (h)** | | |
| **Total area of agricultural land used by HH (h)** | | |
| **Total area of land affected by the project (h)** | | |
| **Total area of agricultural land affected by the project (h)** | | |

| **Plot** | **Plot number** | **Location of plot** |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

**1. Information on household (head of HH to be listed first)**

| # | Name, last name | **Gender**<br>1. Female<br>2. Male | Age | **Education**<br>1. Without education<br>2. Pre-school<br>3. Elementary<br>4. Secondary<br>5. Vocational<br>6. Higher | **Marital status**<br>1. Single<br>2. Married<br>3. Divorced<br>4. Widow | **Ethnicity**<br>1. Georgian<br>2. Armenian<br>3. Azeri<br>4. Russian<br>5. Ossethian<br>6. Other ***(Specify)*** | **Religion**<br>0. None<br>1. Orthodox<br>2. Catholic<br>3. Muslim<br>4. Other ***(Specify)*** | **Social status**<br>0. None<br>1. IDP<br>2. Eco-migrant<br>3. Pensioner<br>4. Disabled<br>5. Other ***(Specify)*** |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

| **2. Employment status of HH: ask for every HH member who is 15 and above!!!** | | | | |
|---|---|---|---|---|
| **Copy serial number of HH member** | **2.1 Employment status:**<br>**1** – Hired employee ***Skip to 2.4***<br>2 – Own business without other employees ***Skip to 2.4***<br>3 – Employer (own business with other employees) ***Skip to 2.4***<br>4 – (Other) Family worker without salary ***Skip to 2.4***<br>5 – Unemployed ***Continue***<br>6 – On maternal leave ***Go to 3***<br>7 – Housewife ***Go to 3***<br>8 – Pensioner ***Go to 3***<br>9 – Student ***Go to 3***<br>10 – Disabled ***Go to 3***<br>11 – Pupil ***Go to 3*** | **2.2 Ask only about unemployed, which of them wants to be employed?**<br>1 – Yes<br>2 – No<br>***Go to 3*** | **2.3 Ask only about unemployed, how long has been seeking for job?**<br>**Record number of months**<br><br>**If answer to the previous question was "no" , *Go to 3*** | **2.4 Field of occupation**<br>1 – Agriculture<br>2 – Trade (agricultural products)<br>3- Trade (non-agricultural products)<br>4 – construction service<br>5 – transport<br>6 – hotels and restaurants<br>7 – Manufacturing<br>8 – Service<br>9 – Operations with real estate, lease and commercial activity<br>10 – Education<br>11 – Entertainment / tourism<br>12 – Other ***(Specify)*** |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| **3. Household' social status** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Below the poverty threshold / social allowance | | Allowance for IDPs | | Allowance for disabled | | Other social allowance | |
| 1. Yes | 2. No | 1. Yes | 2. No | 1. Yes | 2. No | 1. Yes | 2. No |

| **4. Place of residence (urban / rural settlement)** |
|---|
| |

| **5. Female headed household** | |
|---|---|
| 1. Yes | 2. No |

| **6. Monthly income of HH (GEL)** |
|---|

| **(Circle main source and record the amount in the box below, if HH does not have income, record 0)**<br>**6.1 For how many months does HH receive this monthly income? *(Specify)*** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Salary from public sector | Salary from private sector | Income from agriculture | Pension | Social allowance | Remittance from relatives | Private business | Temporary jobs | Other ***(Specify)*** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | |
| | | | | | | | | |

| **7. Loan and its structure (yes/no, loan from bank, micro-financing organization or private entity)** | | | | | | |
|---|---|---|---|---|---|---|
| Loan from bank | | Loan from private entity | | Micro-financing organization | | 1. No |
| 1. Yes | 2. No | 1. Yes | 2. No | 1. Yes | 2. No | |

| **8. 1 HH assets / land** | | | | |
|---|---|---|---|---|
| **Plot of land** | **Purpose**<br>1. Agricultural<br>2. Non-agricultural | **Category**<br>1. Residential 2. Multi-year<br>3. Plough 4. Mowing 5. Pasture | **Area (h)** | **Location**<br>***Urban / rural settlement*** |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| **8.2 HH assets / immovable property** | | | | |
|---|---|---|---|---|
| **Building** | **Type of building**<br>1. Residential<br>2. Commercial<br>3. Auxiliary<br>4. Other ***(Specify)*** | **Number of storeys of building** | **Material of building**<br>1. Block - brick<br>2. Stone<br>3. Wood<br>4. Concrete<br>5. Other ***(Specify)*** | **Location**<br>***Urban / rural settlement*** |
| Building #1 | | | | |
| Building #2 | | | | |
| Building #3 | | | | |
| Building #4 | | | | |
| Building #5 | | | | |
| Building #6 | | | | |

| **9. Movable assets (quantity)** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TV | Landline phone | Mobile phone | Internet | Radio | PC | Washing machine | Refrigerator | Motorcycle | Car | Bicycle | Other ***(Specify)*** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

**10. Domestic animals quantity)**

| Cow | Sheep | Goat | Pig | Horse | Donkey | Poultry | Other ***(Specify)*** |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**11. Main expenses of HH over the past 12 months (on average, monthly, GEL)**

| For food | Other (not for food) | Total |
|---|---|---|
| | | |

**12. Water supply and sewage systems (1. yes / 2. no**

| Tap water at home | Tap water in the yard | Movable water cistern | Shared well | Own well | Spring | Other ***(Specify)*** | Centralized sewage system | Hole | Other ***(Specify)*** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

**13. Energy resources (1. Yes / 2. No)**

| Electricity | Natural gas | Gas cistern | Firewood | Other ***(Specify)*** |
|---|---|---|---|---|
| | | | | |

**14. Does waste collection service operate in your settlement?**

| 1. Yes | 2. No |
|---|---|

**15. Do you have access / do you use irrigation system?**

| 1. Yes | 2. No |
|---|---|

**16. Please tell me, what natural disasters occur in your settlement?**

***Write down:***

**17. Do you have kindergarten age child/children at home and if yes, do you take child/children to kindergarten?**

| 1. Yes, we take ***Go to 18*** | 2. No, we don't ***Go to 19*** | 3. We don't have kindergarten age children ***Go to 20*** |
|---|---|---|

**18. In general, are you satisfied with kindergarten? *Skip to 20***

| 1. Yes, I am | 2. No, I am not | 99. Hard to assess |
|---|---|---|

**19. Why don't you take kindergarten age child/children to kindergarten?**

**20. Do you have school age child/children at home and if yes, do they go to school?**

| 1. They go to school ***Go to 21*** | 2. They don't go to school ***Go to 22*** | 3. We don't have school age children ***Go to 23*** |
|---|---|---|

**21. In general, are you satisfied with public school? *Go to 23***

| 1. Yes, I am | 2. No, I am not | 99. Hard to assess |
|---|---|---|

**22. Why don't school age child/children go to school?**

**23. Did any of your HH members need medical aid over the past 12 months?**

| | |
|---|---|
| 1. Yes ***Go to 24*** | 2. No ***Go to 27*** |

**24. Did you apply to medical facility / doctor in this case?**

| | |
|---|---|
| 1. Yes ***Go to 25*** | 2. No ***Go to 26*** |

**25. Are you satisfied with provided service?**

| | | |
|---|---|---|
| 1. Yes, I am ***Go to 27*** | 2. No, I am not ***Go to 27*** | 99. Hard to assess ***Go to 27*** |

**26. What was main reason for applying medical facility / doctor?**

| |
|---|
| |

**27. Distance to educational, medical and utility service facilities (distance, km)**
***(If N/A record – 55, if does not know – 99)***

| Local polyclinics | Local hospitals | District or city hospital | Kindergarten | School | Higher education institution | Local road | Central highway |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**28. Please assess how has your HH's socio-economic condition changed over the past three years?**

| | | | | |
|---|---|---|---|---|
| 1. Significantly worsened | 2. Worsened | 3. Has not changed | 4. Improved | 5. Significantly improved |

**29. Which of the statements below describes your HH's financial condition best of all?**

| | |
|---|---|
| We can hardly buy food | 1 |
| We have enough money for food, but in order to buy clothes and shoes, we have to save or borrow money | 2 |
| We have enough money for food, everyday clothes and shoes, but in order to purchase good clothes, mobile phone, vacuum cleaner and other home appliances, we have to save or borrow money | 3 |
| We have enough money for food, everyday clothes and shoes, but in order to buy car or apartment, we have to save or borrow money | 4 |
| We can buy everything we want any time | 5 |
| DK / hard to answer | 99 |

**30. Do you cultivate agricultural plot of land owned by your HH?**

| | |
|---|---|
| 1. Yes ***Go to 32*** | 2. No ***Go to 31*** |

**31. Why don't you cultivate agricultural plot of land owned by your HH?**

| |
|---|
| ***Go to 33*** |

**32. Do you sell agricultural products produced by you?**

| | | |
|---|---|---|
| 1. Yes | 2. No | 3. I don't produce agricultural products |

**33. Attitude towards the project**

| Very negative | Negative | Neither negative nor positive | Positive | Very positive | Cannot specify |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 99 |

**34. Project impact on socio-economic activity in the municipality**

| Very negative | Negative | Neither negative nor positive | Positive | Very positive | Cannot specify |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 99 |

**35. Interviewer's remarks:**

_____

_____

_____

_____

_____

_____

_____

Respondent's signature / date _____ /_____ /

Interviewer's name, last name and signature / date _____ /_____ /

# Appendix B. Valuation Matrix of the Affected Building

**Description and evaluation of affected immovable property (buildings)**

" Market value" of the immovable property defined by means of immovable property cost method implies a sum values of land parcel (as free) and cost of construction of facilities on it.

When evaluating immovable property by means of market value costs method, the following sequence of actions shall be followed:

I. Valuation of the value of land parcel as free and available mean for its best and effective use;

II. Calculation of full restoration or replacement costs of facilities (structures/buildings);

III. Calculation of all kinds of wear and tear of facilities which in accordance with methodology provided in resettlement policy framework document and WB requirements / rules, is not taken into consideration. Calculation of market value of immovable property by summing up final values of owned land parcel and its facilities.

In order to identify compensation value of the project affected immovable property (facilities), cost replacement method was applied. Data in terms of immovable property are based on measurement drawings provided by the client. The following facilities being in private property and located within district territorial borders of Shuakhevi and Keda were presented for valuation:

| | |
|---|---|
| **Number #** | 1 |
| **Owner of facility #** | Guram Diasamidze |
| **Address** | Shuakhevi district, village Phurtio |
| **Description** | The facility is a one-storey wooden building construed on stone plates – temporary residence. The roofing is made of tin sheet. Total area is 16, 00 square meters. |

| # | Volume of work | Unit | Quantity | Value of unit, GEL | Workforce/ per unit | Transport / mechanism | Total value, GEL |
|---|---|---|---|---|---|---|---|
| 1 | Land works | m3 | 0.5 | | 15 | | 7.5 |
| 2 | Timber material | m3 | 4.7 | 500 | 40 | 200 | 2738 |
| 3 | Nails | kg | 20 | 6 | | | 120 |
| 4 | Galvanized tin sheet | Sq.m. | 32 | 10 | | | 320 |
| | | | | | Total | | 3185.5 |
| | | | | | Overhead charges | | 95.565 |
| | | | | | Sum | | 3281.065 |
| | | | | | VAT | | 590.5917 |
| | | | | | Sum | | 3871.6567 |
| | | | | | **Total sum (rounded)** | | **3870** |