



# **RUISI WIND POWER PLANT PROJECT**

## **Land Acquisition and Livelihood Restoration Framework**

**Project Implementer:  
JSC Wind Power**

**Prepared by:  
WEG Envi Consulting LLC**



**October 2023**

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## Abbreviations and Definitions

AH	Affected household
AP	Affected person
CLO	Community Liaison Officer
CW Contractor	Construction Works Contractor
DMS	Detailed measurement survey
EBRD	European Bank for Reconstruction and Development
ESIA	Environmental and social impact assessment
ESP	Environmental and Social Policy
GEL	Georgian Lari
IDP	Internally displaced person
IFC	International Financial Institution
IOL	inventory of losses
IVS	International Valuation Standards
JSC	Joint-stock company
LALRF	Land Acquisition and Livelihood Restoration Framework
LALRP	Land Acquisition and Livelihood Restoration Plan
MW	Megawatt
NAPR	National Agency of Public Registry
PAP	Project affected person
PIB	Public Information Booklet
PR	Performance Requirement
WPP	Wind power plant

## 1. Project Context and Scope of the Resettlement Framework

This document is a Land Acquisition and Livelihood Restoration Framework for the Project on Construction and Operation of 206 MW Ruisi Wind power plant (Ruisi WPP) on the territory of Kareli and Gori Municipalities in Shida Kartli (Inner Kartli) region of Georgia. Project implementation is planned by the JSC Wind Power.

According to design the total power capacity of the Ruisi Wind Farm will be 206 MW; installed power capacity of each wind turbine will be 4.5 MW in average. There are 46 locations selected for installation of wind turbines. Environmental and social impacts, including physical and economic displacement, are assessed for worst-case scenario that implies installation of 46 wind turbines with installed capacity of 4.5 MW each. In reality the impact will be lower because actual number of the turbines will be less than 46. The specific models of wind turbines will be selected during tendering process on the basis of best offer to achieve 206 MW power capacity and finally the number of turbines could be significantly reduced (33-36 turbines is expected as most probable scenario). In order to achieve planned 206 MW power capacity, the final configuration of Ruisi Wind Farm will include several wind turbines with more than 4.5 MW power capacity and their final number will be less than 46.

This Land Acquisition and Livelihood Restoration Framework is prepared on the basis of the EBRD Environmental and Social Policy (2019) and Environmental Assessment Code of Georgia. IFC Performance Standard 5, which is very similar to EBRD PR 5, is also regarded.

The Project is being developed by the JSC Wind Power. This ESIA Report and this Resettlement Policy Framework was prepared by the WEG Envi Consulting Ltd.

According to the memorandum signed by JSC Wind Power and Georgian Government and commitments taken by JSC Wind Power, the land acquisition will take place based on amicable agreements with the land owners (willing buyer – willing seller principle).

At present stage of the project development, final number of the turbines, their precise location and orientations, as well as exact layout of access roads and underground cables is unknown and needs to be specified. The detailed census of affected people and assets cannot be conducted for this reason. In exceptional cases, where, for compelling reasons, the project design is not finalized at the time of submission to the EBRD Board, it may be acceptable, subject to the approval of the Bank during due diligence, to postpone the preparation of a full resettlement plan, as long as a resettlement framework is submitted as a first step.

This resettlement framework has been prepared by the JSC Wind Power as part of the ESIA process (PR 1). The purpose of the resettlement framework is to clarify resettlement principles and organizational arrangements. The format of the following resettlement documents required for land acquisition, is proposed in this LALRF and needs to be agreed with Bank.

The project proponent is encouraged to conduct negotiations with the PAPs and execute land acquisition based on amicable agreements, following the principles set forth in this LALRF. The main requirement is to conduct internal monitoring and properly document the land acquisition process. At certain moment, when the JSC Wind Power finishes the detailed design of the Ruisi WPP, the Bank may request preparation of the Resettlement Action Plan<sup>1</sup> for the remaining private land plots, not

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<sup>1</sup> Where PR5 is applicable, the EBRD requires a resettlement plan. No project that triggers PR5 is exempt from the requirement to prepare a resettlement plan and submit it to the EBRO. This requirement applies regardless of the magnitude of displacement (that is, it starts from one land plot and one household)

acquired yet by the project. In that case, the RAP will describe in detail the previous process of land acquisition, conducted by the company before drafting the RAP.

JSC Wind Power shall establish procedures to monitor and evaluate the implementation of the resettlement plan and shall take corrective action if necessary, during implementation to comply with the principles set forth in this LALRF. JSC Wind Power shall ensure that the implementation of the land acquisition is verified through the submission and approval of the “Land Acquisition and Resettlement Execution Report” by the Bank upon completion of all activities.

The attached Valuation Report (Annex 2) provides basic value for compensation to be used in negotiations as a minimal price. These values are derived as replacement costs for the affected assets and other losses.

## 2. Project description and potential impacts

### 2.1. Project objectives, location, rationale and benefits

This Project is related to Construction and Operation of 206 MW Ruisi Wind power plant (Ruisi WPP) on the territory of Kareli and Gori Municipalities in Shida Kartli (Inner Kartli) region of Georgia. Project implementation is planned by the JSC Wind Power.

The Ruisi project site is located in Kareli district of Georgia, in the region of Shida Kartli located in the central part of Georgia on the Shida Kartli plain, 100 km west from Tbilisi. The site area covers around 13 000 ha within perimeter of more than 45 km between villages of Ruisi-Bebnishi-Sagholasheni-Breti-Dzlevijari-Sakasheti-Arashenda.



Figure 2-1 Project location

Expected benefits from the construction of the Ruisi Wind Farm are the following:

- Development of power supply system in Georgia, increase of power supply reliability.
- Increase of domestic power generation and reduction of dependence on power imports; contribution into improvement of energy-safety and energy-independence.
- Development of renewable energy sources, diversification of power sources.
- Reduction of CO<sub>2</sub> emissions.
- Participation of local contractors in construction of wind power station
- Employment of local population during operation of the wind farm
- Upgrade of local infrastructure

## 2.2. Key project components

The key project components comprise following facilities and infrastructure:

- WPP Turbines
- Substation
- Internal connecting cables
- Internal access roads

Temporary facilities, like construction camp will be needed at the construction stage.

The layout is given on figure 2-2

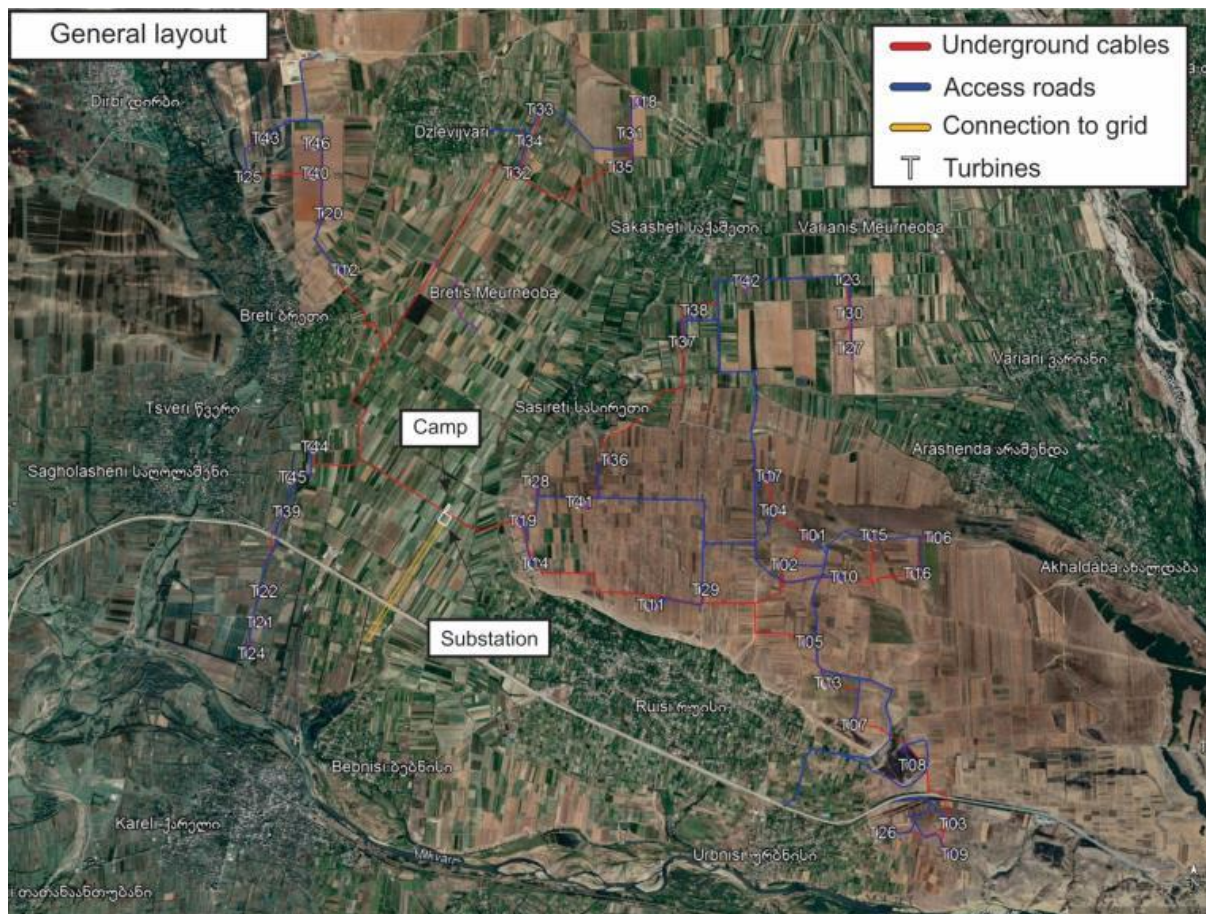


Figure 2-2 General Layout



When selecting the locations of the turbines, the distance of the alternative sites from the residential houses and settlements, monuments of cultural heritage, objects of religious and general social importance (old and new, functioning churches, cemeteries, etc.) have been taken into account.

Ruisi WPP turbines and substation: proximity to the residential areas, surface water and cultural heritage objects

Turbine N	Distances (m)			Cultural Heritage Objects		
	Residential area/ closest house					
1	2055	S/W	Ruisi	2073	S/W	Ruisi St. Marine church cemetery
2	1500	S/W	Ruisi	1456	S/W	Ruisi St. Marine church cemetery
3	1447	S	Skra	1910	S	Skra Mother of God named church
4	2105	S/W	Ruisi	1933	S/W	Ruisi Kvirackhoveli church
5	903	S/W	Ruisi	610	S/W	St.Kvirike and Ivliita monastery cemetery
6	649	N/E	Arashenda	1081	N/E	Arashenda Mother of God named church
7	889	N/W	Ruisi	851	S/W	Ruisi Mother of God small church
8	1326	S/W	Urbnisi	1664	N/W	Ruisi Mother of God church
9	1015	S	Skra	1480	S	Skra Mother of God named church
10	1935	N/E	Arashenda	1633	S/W	St.Kvirike and Ivliita monastery cemetery
11	527	S/W	Ruisi	633	W	Ruisi St. Demetre church cemetery
12	594	S/W	Breti	610	S/W	Cemetery
13	714	S/W	Ruisi	446	S/W	St.Kvirike and Ivliita monastery cemetery
14	574	S/E	Ruisi	746	S/E	Ruisi St. Demetre church cemetery
15	1276	N/E	Arashenda	1872	N/E	Arashenda Mother of God named church
16	1221	N/E	Arashenda	1618	N/E	Arashenda Mother of God named church
17	2413	NW	Arashenda	1837	N/W	Ildaeti John The Baptist church
18	550	S/E	Sakasheti cottages	979	N/E	St. Nicholas church
19	1171	S/E	Ruisi	1255	S/E	Ruisi St. Demetre church cemetery
20	990	S/W	Breti	884	S/W	Cemetery
21	910	S/E	Bebnisi	2250	S	Kareli Khareba church
22	1156	NW	Sagholashe ni	1763	N/W	Sagholasheni Zion basilica
23	656	N/E	Variani Farm	1090	S/E	Variani Cylindrical Tower (417375.66 , 4658639.37)
24	554	S/E	Bebnisi	1801	S	Kareli Khareba church
25	408	NW	Dirbi	1309	N/W	Dirbi St. George church
26	515	W	Urbnisi	1628	S/W	Urbnisi Church
27	1497	N/E	Variani Farm	375	S/E	Variani Cylindrical Tower (417375.66 , 4658639.37)
28	707	N/E	Sasireti	1210	N/E	Sasireti St. George church
29	868	S/W	Ruisi	616	S/W	Ruisi Kvirackhoveli church
30	1048	N/E	Variani Farm	670	S/E	Variani Cylindrical Tower (417375.66 , 4658639.37)
31	570	N/E	Sakasheti cottages	1279	N/E	St. Nicholas church

Turbine N	Distances (m)			Cultural Heritage Objects		
	Residential area/ closest house					
32	611	N/W	Dzlevidjvari	2297	S/E	Sakasheti St.George church
33	816	N/E	Dzlevidjvari	2427	E	St. Nicholas church
34	607	N/E	Dzlevidjvari	2493	S/E	Sakasheti St.George church
35	731	S/E	Sakasheti cottages	1540	S/E	Sakasheti St.George church
36	549	N/W	Sasireti	823	N/W	Sasireti St. George church
37	916	N/W	Sakasheti	386	S/E	Ildaeti John The Baptis church
38	535	N/E	Sakasheti	783	N/W	Sakasheti St.George church
39	707	N/W	Sagholashe ni	563	N/W	Cemetery
40	1221	N/W	Dzlevidjvari	1361	S/W	Cemetery
41	942	N/W	Sasireti	1288	N	Sasireti St. George church
42	512	N/E	Sakasheti	1116	N/W	Church of the Entry of the Most Holy Mother of God into the Temple
43	499	N/W	Dirbi	1489	N/W	Dirbi St. George church
44	809	N/W	Breti	730	S/W	Cemetery
45	673	S/W	Sagholashe ni	347	N/W	Cemetery
46	1060	N/E	Dzlevidjvari	2191	N/W	Dirbi St. George church
Sub-station	1797	S/E	Ruisi	2379	S/E	Ruisi St. Demetre church cemetery

### 2.3. The potential project footprint and its associated land impacts

The project is implemented on the territory, which is relatively remote from residential areas and concerns private agricultural lands (annual crops and gardens) and state lands, but not homesteads lands. The project does not envisage physical resettlement of the population from the place of residence.

The project footprint is limited to the:

- area of land taken for the turbines (d=21m; permanent footprint about 350 m<sup>2</sup>)
- assembly yards (temporary land take; area is about 1,650m<sup>2</sup>. Total area of the assembly yards is around 51,000 m<sup>2</sup>)
- area of land under the substation and office (about 1000 m<sup>2</sup>)
- new layout (widened at certain locations) of the existing access roads
- connection cable routs (2m construction corridor)

The land used for construction of foundations and erection of the turbines, as well as land allocated for substation and office will be taken permanently. The land plots used during the construction period for assembly yards, as well as corridors for laying cables, will be purchased by the project, however, the company takes commitment to allow the former users of the land to use it further for crop cultivation.

The resettlement impact of the project is mainly expressed in agricultural land loss and economic displacement. Most of the private land area (up to 40%) is used for growing grain crops, up to 30%- for growing various kinds of vegetables and the rest (up to 30%) is orchards. Small part of the state land represents unofficial pastures. No protected areas fall within the project impact zone. The Impact Scale is not yet precise. Taking into account the current configuration of turbines (46 turbines) and selected areas for them, it will be necessary to occupy approximately 165 registered land plots, most of which

(152) are private plots. Apart from that, the land required for expansion of access roads and laying of connecting cables should be acquired.

The number of impacted private plots can be reduced by minor adjustments to the turbine layout (fine tuning). When the mast is located on several plots, moving the mast by just a few meters may result in a decrease in the number of plots (instead of 2 or 3 plots, it is possible to place the turbine mast within only one plot). Such micro-correction works are currently underway and the number of affected plots and affected households is likely to be significantly less at the ESIA stage.

Reducing the total number of turbines will also help to reduce number and area of impacted private plots. It is expected that at the stage of the EIA, in the final configuration less than 46 turbines will remain (most likely - from 33 to 36)

According to the preliminary assessment, in total 165 land plots needs to be acquired for placing wind generator turbines. Out of this 152 are private plots (138 registered, 8 still under registration and 6 more registered plots are owned by business companies). Some households own several land plots and many plots are co-owned by several PAPs. In total 234 households and 3 companies will be affected. Most of the affected land plots are agricultural (148). Two of the affected plots have residential status, although they are used for only agricultural needs. Two of the affected land plots are of non-agricultural category. Below in the tables more details are provided. The area of the affected land plots means here the total area of the affected plots. The actual affected area is less and needs to be specified through the detailed measurement survey.

Table 2-1 Affected plots by Land Tenure Category

	Land Tenure Category	Number of plots	Total Area, sqm	Number of AHs
1	Private registered	138	2,265,056	226
2	Private Under registration	8	147,293	8
3	Land owned by Companies	6	659,409	3 Companies
4	State used by private users	0	0	0
5	State land not used	13	4,088,554	0
	<b>TOTAL</b>	<b>165</b>	<b>7,160,312</b>	<b>234 + 3 Companies</b>

The land take associated with the widening of access roads and laying cables needs to be specified at the later stages of the project design. For the access roads the existing roads mostly are used and only in some places widening will be needed. For laying cables no land acquisition is needed but the easement agreement is sufficient for compensation of the temporary impacts and land use limitations.

Table 2-2 Affected plots by Land Use Category

	Land Use Category	Number of plots	Total Area
1	Residential land; Perennials	2	16,060
2	Arable land; Annual Crops	120	2,906,694
3	Arable land; Mixed Annual Crops and perennials	6	46,600
4	Arable land; perennials	22	94,799
5	Non-agricultural	2	7,605
6	State used by private users	0	0
7	State land not used	13	4,088,554
	<b>TOTAL</b>	<b>165</b>	<b>7,160,312</b>

No residential or other houses and buildings are affected, and no physical relocation of the AHs is planned. The only affected structure (apart from the fences): on one land plot a non-residential 267 m<sup>2</sup> ancillary building and well is located.

The issue of use of the State-owned land by legitimate or illegitimate land users is under the investigation. At this preliminary stage no tenants or leaseholders have been identified. The employed personnel work for 3 affected businesses, however the mentioned businesses lose only minor part of their total land, and it is not expected that the employees will lose their jobs and incomes.

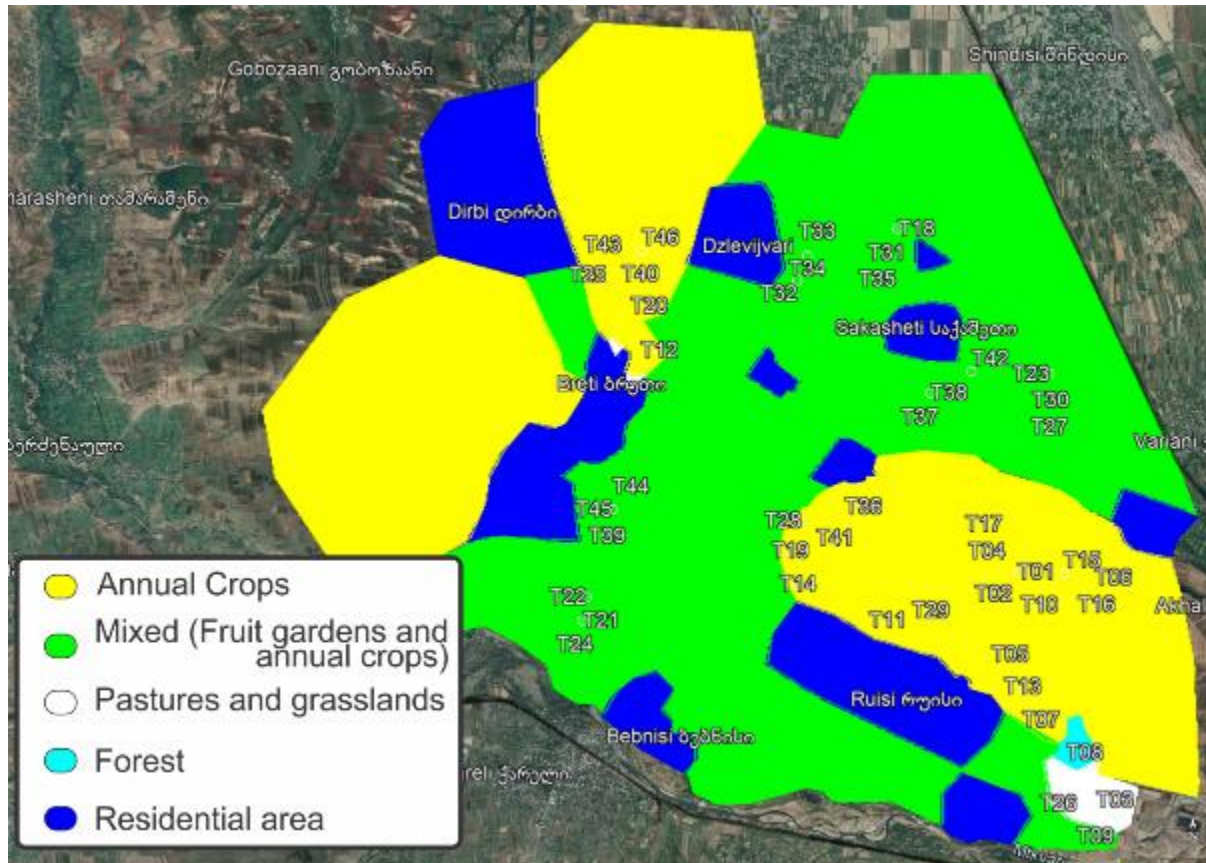


Figure 2-3 Land Use Map

Currently, both optimization of the turbine layout scheme and negotiations with private landowners are underway. At the later stages, the results of the negotiations as well as the results of the optimization of the deployment will be reflected and accurate calculation of the expected socio-economic impact and assessment of the loss (compensation cost) will be given.

The project under consideration is not subject to expropriation legislation. Negotiations with private landowners on compensation for losses are based on the principle of voluntary agreement (willing buyer/willing seller). At the same time, the company will develop a plan for restoring the source of income and social conditions. However, according to ESP 2019, where transactions are purely voluntary, the livelihood impacts on land users other than the landowner (even if they are informal) need to be considered, as the presence of such users would trigger the application of PR5 (see PR5, paragraph 8 and FAQ 3). This applies regardless of the regime of tenure, whether formal or informal. For example, if there are herders informally using a plot of land that is voluntarily sold to the project by its owner, or leaseholders and/or employees having income from the land plot, PR5 will apply, and adequate livelihood restoration measures will have to be developed for the affected informal users.

At this stage of the project development, it is not planned to prepare Resettlement Action Plan for the project. In parallel with the project development, JSC Wind Power is encouraged to conduct negotiations with the PAPs and execute land acquisition based on amicable agreements, following the principles set forth in this LALRF. The main requirement is to conduct internal monitoring and properly document the land acquisition process.

However, at certain moment, when the JSC Wind Power finishes the detailed design of the Ruisi WPP, the Bank may request preparation of the Resettlement Action Plan for the remaining private land plots, not acquired yet by the project. In that case, the RAP will describe in detail the previous process of land acquisition, conducted by the company before drafting the RAP.

JSC Wind Power shall ensure that the implementation of the land acquisition is verified through the submission and approval of the “Land Acquisition and Resettlement Execution Report” by the Bank upon completion of all activities. The “Land Acquisition and Resettlement Execution Report” will contain detailed description of all impacts and losses associated with the land take needed for this project.

Noise and visual impacts are described in ESIA and no impacts requiring resettlement has been detected.

In relation with flickering – detailed modeling is proposed to be conducted, after the final location of turbines and their orientation is determined. Depending on scale of actual impacts – compensations will be proposed based on amicable agreement and turbine shut-down schedules implemented where needed. In case of severe impacts on certain residents is unavoidable, the issue of physical relocation may become a subject for discussion.

## **2.4. Commitment to the avoidance and minimization of displacement in further project development**

JSC Wind Power takes commitment to further minimize economic displacement of the affected households through optimization of the detailed design. Minimization of the number of turbines, optimization of their location, use of existing access roads will help JSC Wind Power to meet this general commitment.

## **3. Legal Framework**

### **3.1. Georgian legislation applicable in cases of livelihood restoration and resettlement**

In Georgia, the legislative acts given below regulate the issues of land acquisition for the project needs:

- The Constitution of Georgia, August 24, 1995 (Last update 16 October 2013)
- The Civil Code of Georgia, June 26, 1997 (amend. 2000, 2002, 2003, 2004, 2005, 2006, 207, 2008, 2009, 2010, 2011, 2012, 2013, 2014,2015, 2016,2017)
- The Law of Georgia on Notary Actions, December 4 2009 (amend. 2010, 2011,2012, 2013, 2014, 2015,2016)
- Law on Public Health 27 June 2007 (amend. 2009, 2010, 2011, 2012, 2013, 2014, 2015.2016,2017)

- The Law of Georgia on Ownership Rights to Agricultural Land, March 22, 1996 (amend. 1997, 1998, 1999, 2000, 2003, 2004, 2007, 2010, 2012, 2014, 2016,2017)
- Law on Compensation of Land Substitute Costs and Damages due to Allocating Agricultural Land for Non-Agricultural Purposes 1997 (amend. 2005, 2006, 2007, 2009, 2010, 2011, 2013, 2014, 2015)
- The Law of Georgia on Recognition of the Property Ownership Rights Regarding the Land Plots Owned (Used) by Physical Persons or Legal entities; 11 June 2007 (amend. 2007,2008,2009 2010, 2011, 2012)
- Law on state property 2010 (amend 2011, 2012,2013,2014, 2016,2017)
- The Law of Georgia on Public Register- No820 –IIs; December 19 of 2008; (amended 2009 2010, 2011, 2012, 2013, 2014, 2015)
- In frames of national project, the Law of Legal Power of Land Parcels Systemic and Sporadic Registration and Improvement of Quality of Cadastral Data. June 17 of 2016. (amended December 14 2016)
- The Law of Georgia on the Rules for Expropriation of Ownership for Necessary Public Need, July 23, 1999 (amend. 2005, 2007, 2010, 2013,2017)
- The Civil Procedural Code of Georgia, November 14, 1997(amend. 1998-2015)
- The Law of Georgia on State property, June 21, 2010
- Labor Code, May 25, 2006
- Tax Code, January 2005
- Law on Entrepreneurship, October 28, 1994
- The Law of Georgia on Protection of Cultural Heritage, 2007;

The Constitution of Georgia, issued in 1995 establishes the basic principles that govern the resettlement process carried out for public interest projects. First of all, the organic law, sets the basis for private ownership of property and assigns the presumption of inviolability that governs the right. In cases of necessary public interest, the State can resort to expropriation of land and immovable property, with the decision ultimately taken by a Court of Law.

Other elements comprised in the Constitution include the consideration for information disclosure, public consultation, grievance mechanism, and protection of cultural heritage when carrying out a process of expropriation/resettlement.

The Civil Code of Georgia establishes the principles that form the basis for private civil relationships and include sections on private ownership rights, transfer of property for temporary use, construction rights, right of way and servitude. Temporary use of property can be granted to a person other than the land owner for a period of up to 59 years on the basis of an agreement.

The Law of Georgia on Agricultural Land Ownership states that the ownership of agricultural land can be granted to the State, physical persons, local communities and legal entities. The agricultural land plots are registered in the Public Register as land used for crop cultivation or livestock breeding and may also include facilities built on their territory. In rural areas, ownership of hay-fields, grazing lands or forestry areas may be the subject of shared property among community members (households/families).

Residential buildings and other structures, processing facilities and equipment built or stationed on agricultural lands that are owned by a household need to be registered in the Real Estate Register, under the property of the family members that share the ownership right.

The Law of Georgia on Legalization of Property<sup>2</sup> provides the basis for legalization of “lawfully possessed (used) land” or “squatted land” by physical or legal persons. The legalization process applies only for land plots that have a residential or non-residential structure built on the land before the Law was erected, or to those land plots that are adjacent to, and smaller in area than, a land plot owned or lawfully possessed by a natural person or legal entity.

Most of the agricultural land is in the property of the State and regional/local public entities with the objective of preventing land fragmentation and irrational use of land and improving the agricultural structure

Public property and the roles of the authorities in the land management process are regulated by the Law of Georgia on State Property and the Local Self-Government Code. Municipalities have properties that they can privatize through public tender. These properties could be taken into account when considering replacement options for physical and economic displacement.

The Law of Georgia on Social Assistance (2006) sets the main principles that govern the social assistance process in Georgia by establishing who is entitled to social aid and what kind of support should be granted to these persons. The main categories identified by the law include poor persons (with socio-economic status lower than the minimum national value), persons in need of special care (e.g. orphans, persons with disabilities, etc.) and homeless persons who need to be registered with the authorities.

The legislation also defines the responsibilities within the administrative apparatus, and the sources of finance that are allocated at national and local level.

The Law of Georgia on Social Protection of Disabled Persons (1995) addresses the special programs that are made available for persons with disabilities, which include financial support, such as social pensions and allowances, as well as educational and professional support to assist these persons with social integration.

The Law of Georgia on Internally Displaced Persons from Occupied Territories – Refugees, 2014 The status of refugees is provided to those that are forced to leave their residence as occupation, armed conflict, communal violence and / or mass violations of human rights pose a threat over the wellbeing of a family. The legislation establishes the principles that will need to be respected when dislocating such families from an area where they have settled. The Ministry of Internally Displaced Persons from the Occupied Territories, Accommodation and Refugees is responsible for the assistance provided to internally displaced persons

As a total, the above-mentioned legislative acts determine that compensation of the lost assets should be carried out in accordance with the current market value. It is also noted that loss of physical assets, as well as, loss of incomes is subject to the compensation. In case of loss the income, damage should be fully compensated. Except this, the legislation requires holding consultations with APs and providing their awareness.

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<sup>2</sup> The Law of Georgia on Recognition of Property Rights of the Parcels of Land Possessed (Used) by Natural Persons and Legal Entities under Private Law, No. 5274, 2007

**There are two ways of obtaining the right of ownership:**

Expropriation implies obtaining the right of the ownership in accordance with the Law of Georgia on “Rules for Expropriation of Ownership for necessary public Needs”. Obtaining the right of ownership is carried out by the decision of the court, after payment of the compensation.

As for the second way, it is obtaining the right of ownership by negotiations. Amount of the compensation is determined based on the negotiations between the parties or the decision of the court. Obtaining the right of ownership should be carried out before launching the works.

**For this particular project the land acquisition is based on voluntary negotiations between the project proponents and the landowners.**

The resettlement policy prefers to obtain the right of ownership by the second way – negotiations, but if this causes no result, the process of expropriation will be started.

Overall, the above laws/regulations provide the principle of compensation at full replacement cost is reasonable and legally supported. The laws also identify the types of damages eligible for compensation and indicate that compensation is to be given both for loss of physical assets and for the loss of income. Finally, these laws place strong emphasis on consultation and notification to ensure that the APs participate in the process. Income loss due to loss of harvest and business closure will be compensated to cover net loss.

**Legalization**

The Project Proponent will provide technical assistance to PAPs qualifying as legitimate possessors of project affected land parcels. These PAPs will be assisted free of charge in the process of legalization of private ownership rights to project affected assets, followed with the registration of ownership title. Following, the PAP will alienate project affected land parcel to the JSC Wind Power for the project purposes in return for fair compensation amount calculated according to the unit rate determined in the approved LRRF.

**3.2. EBRD provisions for land acquisition, involuntary resettlement and economic displacement**

**The Performance Requirement 5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement)** addresses impacts of project-related land acquisition, including restrictions on land use and access to assets and natural resources, which may cause physical displacement (relocation, loss of land or shelter), and/ or economic displacement (loss of land, assets or restrictions on land use, assets and natural resources leading to loss of income sources or other means of livelihood). The term “involuntary resettlement” refers to both of these impacts and the processes to mitigate and compensate these impacts. Resettlement is considered involuntary when affected persons or affected communities do not have the right to refuse land acquisition or restrictions on land use, other assets and natural resources, even if compulsory acquisition is used only as a last resort after a negotiated process.

This PR applies to physical or economic displacement that can be full or partial, permanent or temporary, and resulting from the following types of transactions:

- land rights and/or assets acquired through expropriation or other compulsory procedures;
- land rights and/or assets acquired through negotiated settlements, if expropriation or other compulsory processes can be initiated in case negotiation fails;



- restrictions that result in people experiencing loss of access to land, assets, natural resources or livelihoods, irrespective of whether such rights of restriction are acquired through negotiation, expropriation, compulsory purchase, or by means of government regulation;
- relocation of people without formal, traditional, or recognisable usage rights under national laws, who are occupying or utilising land prior to the cut-off date; and
- displacement of people as a result of project impacts that render their land or assets unusable or inaccessible.

This PR does not apply to resettlement resulting from voluntary land transactions (market transactions in which the seller is not obliged, coerced, intimidated or bribed to sell and the buyer cannot resort to expropriation or other compulsory process if negotiations fail), and where such transactions affect only those with legally recognised rights. However, this PR will apply where such voluntary land transactions may result in the displacement of persons, other than the seller, who occupy, use or claim rights to the land in question such as informal tenants or other land users that have no right under national law;

**The main principles of PR 5 are the following:**

All feasible alternative project designs should be explored to avoid or at least minimize physical and/or economic displacement; Avoidance is the preferred approach.

Avoidance of Forced Eviction: The client shall not resort to forced eviction. The exercise of eminent domain, expropriation, compulsory acquisition or similar powers by a client is not considered to be forced eviction providing it complies with the requirements of national law and the provisions of this PR and is conducted in a manner consistent with basic principles of due process (including provision of adequate advance notice, meaningful opportunities to lodge grievances and appeals, and avoidance of the use of unnecessary, disproportionate or excessive force).

The client will seek to acquire land rights through negotiated settlements even if it has the legal means to gain access to the land without the consent of the seller. Negotiated settlements are encouraged to help avoid expropriation and eliminate the need to use governmental authority to remove people forcibly;

The client shall identify, assess and address impacts on vulnerable groups in accordance with PR 1 and plan assistance measures tailored to the different needs of vulnerable groups.

The process of physical displacement or economic displacement has specific gender dimensions that shall be considered throughout baseline surveys, impact assessment, mitigation and monitoring processes.

Adverse social and economic impacts from land acquisition or restrictions on affected persons' use of/access to land should be mitigated by: (i) providing compensation for loss of assets at replacement cost; and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;

The livelihoods and standards of living of displaced persons should be improved or, at a minimum, restored to pre-project levels;

PAPs who have no recognizable legal right or claim to the land they occupy are not entitled to compensation for land, however they should be compensated for the structures that they own and occupy and for any other improvements to land.

All categories of affected people must be provided with resettlement assistance in accordance with their needs, particularly disadvantaged and vulnerable groups;

A grievance mechanism must be established as early as possible in the process in order to receive and address in a timely fashion specific concerns about compensation and relocation that are raised by displaced persons and/or members of host communities, including a recourse mechanism designed to resolve disputes in an impartial manner.

### **The Planning Documents and Monitoring of Implementation**

To address the risks and impacts identified in the environmental and social assessment, the client shall prepare a resettlement plan proportionate to the risks and impacts associated with the project: A resettlement plan shall be developed, where the nature and magnitude of impacts associated to land acquisition can be determined at the time of the environmental and social assessment, the resettlement plan shall be submitted to the Bank. In specific cases and subject to the approval of the Bank, a resettlement framework may be acceptable as a first step towards the development of a resettlement plan only if there is a clearly identified and compelling reason related to the stage of project development that prevents the development of a full resettlement plan. The resettlement framework shall be prepared by the client where the nature or magnitude of impacts associated to land acquisition is unknown due to the project development stage and a detailed census of affected people and assets cannot be conducted for this reason. The purpose of the resettlement framework is to clarify resettlement principles and organizational arrangements. Once the project components are defined in sufficient detail, a detailed resettlement plan proportionate to potential risks and impacts will be prepared in accordance with the requirements of this PR on the basis of the resettlement framework.

Resettlement planning documents shall be integrated in the environmental and social management system required by PR 1. For Category A projects, they will be submitted as part of the ESIA required under PR 1 and disclosed according to the same review and engagement process and timeline as established in PR 10.

The client shall establish procedures to monitor and evaluate the implementation of the resettlement plan and shall take corrective action if necessary, during implementation to achieve the objectives of this PR. The client shall ensure that the implementation of the resettlement plan is verified through the submission and approval of the land acquisition and resettlement execution report by the Bank upon completion of all activities.

Where the magnitude of displacement impacts is significant, the Bank may require one or both of the following in addition to internal monitoring:

- periodic external compliance reviews at a frequency and according to terms of reference to be determined in the resettlement plan and in agreement with the Bank; and/or
- an external completion audit of land acquisition and resettlement activities to determine that requirements in this PR and provisions in the resettlement plan have been met, particularly those pertaining to improvement or replacement of housing or livelihoods.

### **3.3. IFC Regulations**

Performance Standard 5: Land Acquisition and Involuntary Resettlement (2012)

When companies seek to acquire land for their business activities, it can lead to relocation and loss of shelter or livelihoods for communities or individual households. Involuntary resettlement occurs when

affected people do not have the right to refuse land acquisition and are displaced, which may result in long-term hardship and impoverishment as well as social stress. PS5 advises companies to avoid involuntary resettlement wherever possible and to minimize its impact on those displaced through mitigation measures such as fair compensation and improvements to and living conditions. Active community engagement throughout the process is essential. PS 5 of IFC is very similar to PR 5 of EBRD.

### **3.4. Principles Applicable for the Ruisi WPP Project**

At present stage of the project development, final number of the turbines, their precise location and orientations, as well as exact layout of access roads and underground cables is unknown and needs to be specified. The nature and scale of impacts associated to land acquisition could be estimated roughly, but detailed census of affected people and assets cannot be conducted.

For this reason, the resettlement framework has been prepared by the client as part of the ESIA process (PR 1), while the format of the following resettlement documents required for land acquisition, is proposed in this LALRF and needs to be agreed with Bank. The purpose of the resettlement framework is to clarify resettlement principles and organizational arrangements.

According to the memorandum signed by JSC Wind Power and Georgian Government and commitments taken by JSC Wind Power, the land acquisition will be carried out without expropriation. Therefore, the Eminent Domain law is not applicable to this project and compensation of all impacts associated with the physical and major part of economic displacement will take place based on only amicable agreements with the PAPs. Expropriation of land and assets or other type of involuntary physical displacement is not acceptable for this project. This is valid in relation with the landowners or legitimate users of land.

According to the preliminary studies, there are no informal users or tenants within the project area. However, it could not be excluded that at the detailed design stage some tenants are identified. Theoretically, there could be identified also affected employees of agribusiness companies or private landowners, losing their jobs and income. This kind of economic displacement due to the land take associated with the project could not be always resolved based on amicable agreement.

Based on above, we can conclude that in relation with the physical displacement, PR 5 is not applicable for this project, however, in terms of economic displacement the project should be ruled in compliance with the PR 5: thus PR 5 is triggered.

Where PR5 is applicable (see sections 2.1 and 2.3), the EBRD requires a resettlement plan. No project that triggers PR5 is exempt from the requirement to prepare a resettlement plan and submit it to the EBRD. This requirement applies regardless of the magnitude of displacement (that is, it starts from one land plot and one household)

At this stage of the project development, it is not planned to prepare Resettlement Action Plan for the project. In parallel with the project development, JSC Wind Power is encouraged to conduct negotiations with the PAPs and execute land acquisition based on amicable agreements, following the principles set forth in this LALRF. The main requirement is to conduct internal monitoring and properly document the land acquisition process.

However, at certain moment, when the JSC Wind Power finishes the detailed design of the Ruisi WPP, the Bank may request preparation of the Resettlement Action Plan for the remaining private land plots, not acquired yet by the project. In that case, the RAP will describe in detail the previous process of land acquisition, conducted by the company before drafting the RAP.

JSC Wind Power shall ensure that the implementation of the land acquisition is verified through the submission and approval of the “Land Acquisition and Resettlement Execution Report” by the Bank upon completion of all activities.

“**Land acquisition and resettlement execution report**” refers to a report finalized upon completion of land acquisition, resettlement and livelihood restoration activities, which includes: summary of project impacts (both physical and economic displacement) and principles guiding the resettlement activities; description of efforts to avoid and minimize displacement; summary of consultation events and outcomes, including how they influenced entitlements and other features of the land acquisition, resettlement, and livelihood restoration activities; description of the compensation delivery process; description of any issues encountered and how they were resolved; summary of grievances received and how they were resolved, including the list of any grievances and court cases pending at the date of submission of the report; description of resources mobilized to plan and implement land acquisition, resettlement, and livelihood restoration activities.

The principles and procedures established in this LALRF correspond to basic requirements of PR 5 to ensure achievement of the objectives of PR 5. This comprises eligibility matrix, methodology for valuation, consultation process, grievance redress mechanism etc.

Detailed Provisions for this Project will be given in following chapters.

The attached Valuation Report (Annex 2), prepared by the certified valuator, provides basic value for compensation to be used in negotiations as a minimal price. These values are derived as replacement costs for the affected assets and other losses

In relation with flickering – detailed modeling is proposed to be conducted, after the final location of turbines and their orientation is determined. Depending on scale of actual impacts – compensations will be proposed based on amicable agreement and turbine shut-down schedules implemented where needed. In case of severe impacts on certain residents is unavoidable, the issue of physical relocation may become a subject for discussion.

## 4. Resettlement Policy Principles, Objectives and Processes

### 4.1. Objectives of Resettlement Policy and Land Acquisition Procedures

The implementation of resettlement activities is linked to the implementation of the investment components of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place.

As stipulated in ESP 2019 and as described in this Land Acquisition and Livelihood Restoration Framework (LALRF) all project related impacts should be identified through the relevant studies undertaken before the land acquisition and addressed accordingly, meaning that all project affected persons will be provided with relevant compensation and other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, effective taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons.

The Ruisi WPP Project does not envisage any physical displacement. **However, the present Land Acquisition and Livelihood Restoration Framework (LALRF) provides generic provisions**

**covering all possible scenarios. More specific documents, like Resettlement Action Plan<sup>3</sup> or “Land Acquisition and Resettlement Execution Report” will focus only on those impact aspects, which are relevant for the Ruisi WPP.**

The land acquisition and compensation of all types of physical and economic displacement for landowners and legitimate users will be conducted based on amicable agreement. In case if amicable agreement with the landowners can't be achieved, the layout of facilities will be changed (see attachment 3, where 12 cases of slight changing location of the turbines due to the disagreement with the land owners have been described).

According to the preliminary assessment and the ongoing land acquisition process, following specific features of the project impacts are revealed, which make the land acquisition and compensation process relatively easy:

- The physical displacement of AHs is not envisaged by the project
- All the used land plots are private (either registered or used by the legitimate users, who have the legal background for registering the affected plots)
- There are no cases that land users lease land from the private owner or State. All AHs work on their own private land.
- The external employees are only engaged by several agricultural firms owning and using their land within the project area. The agri-firms are large, with many employees and it is no problem for them to redistribute the workers on the remaining lands. Agribusinesses do not face the need to cut jobs. None of the workers will lose their jobs.
- There are no squatters and illegal users of State land in the project area.
- Within the project area, there are no official pastures or even classical pastures of common use (as in mountainous areas of Georgia). However, some small areas of the State-owned land is used for grazing (3 such areas have been identified). The project does not affect even these three grazing areas (see the Pasture Report attached as annex 4). Thus, no livelihood restoration actions are required to compensate the impacts on pastures.
- The general tendency is that PAPs are willing to get compensations proposed and the amicable agreement with them could be achieved. Within the last six months, 47.44%<sup>4</sup> of the required land area has been purchased from private owners/users. So far, 695,528 square meters (69.55 hectares) have been purchased from 224 landowners (land plots). The land plots required for a substation and 17 turbines (turbines: 4, 5, 7, 10, 13, 14, 16, 19, 25, 29, 34, 35, 36, 42, 44, 46) have been fully purchased, as well as parts of land plots for ten more turbines (turbines: 11, 18, 23, 28, 30, 31, 33, 38, 41, 45). The process of land acquisition is ongoing with left 183 owners (111 land plots) and preliminary agreements have been reached with 85% (156 land owners).

Preparation for the land acquisition and assessment of economic displacement begins from identification of the affected land plots, their legal status and tenure, inventory of assets and economic activities practiced on the affected land plots. The survey starts by comparison of the project design drawings with the cadastral data of NAPR. As most land plots are registered, this allows identifying a major part of affected plots and their owners. At the next stage the social expert and Resettlement Team of the JSC Wind Power communicates with the local authorities. Desk studies together with the representatives of the local authorities, as well as the joint field survey allows to complete identification

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<sup>3</sup> Preparation of the Resettlement Action Plan may be requested by Bank at the detailed design stage.

<sup>4</sup> The tender for service providers for turbines is ongoing and preliminary expectations are to require about 29-35 turbines which will change shares. The Project may not require areas for all 46 turbines; however, some extra lands may be purchased for livelihood restoration purposes.

of the affected plots, their owners and users, possible employees and leaseholders or any potential illegal land-user.

The small land plots used by private owners and users are acquired as entire plots. During the individual consultations JSC Wind Power proposes initial price for the entire land plot. However, the provisions of the draft contract envisage, that the residual parts of the land, which are not permanently occupied by the facilities and are not needed for the project, could be further used by the ex-owners for free or symbolic price for 99 years after signing the contract. This means that the landowners/users receive the compensations for the entire plot but can further use some part of their land for agricultural activities.

Despite the fact that the land acquisition is based on principle of amicable agreements, the principles of PR 5 are used for elaboration of the eligibility criteria and eligibility matrixes. Eligibility criteria is needed to clearly define and explain PAPs what types of impacts are recognized as physical or economic displacement and who is eligible for particular types of compensations and allowances. The Eligibility matrix defines also the principles and logic according to which the minimum compensation price is estimated. The minimum compensation price is a price deemed as fair compensation for the project related losses. The compensation rates less than those calculated based on the eligibility matrix, will be deemed as not fair and should not be proposed to the PAPs. The final compensation prices are subject for negotiation and amicable agreement between the JSC Wind Power and the PAPs.

The minimum compensation prices, based on principles fixed in the eligibility matrix, have been calculated by the independent licensed evaluator, hired by the JSC Wind Power. The Valuation Report is attached to the LALRF as annex 2.

## 4.2. Cut-off Date, Time Given for Vacating Land and Notification

In the projects with involuntary resettlement, compensation eligibility is limited to PAPs by a cut-off date. The best practice is to use the starting date of the census of displaced persons as the cut-off date. In cases where the cut-off date is applicable, PAPs who settle in the affected areas, or erect any fixed assets, such as structures, crops, fruit trees, and woodlots and other assets, after the cut-off date will not be eligible for any compensation. However, they will be given sufficient advance notice, requested to vacate premises and dismantle affected structures prior to project implementation.

The cut-off date principle is not applicable for the resettlement process<sup>5</sup> with voluntary negotiations. Instead of that the other timing benchmarks become important, like time given for vacating land and assets. So far as no physical relocation is envisaged by the project, following important provisions are applicable in relation with the vacating the land:

- The landowners and users will be allowed to harvest the crops existing for the time of signing the agreement. Accordingly, the AHs will be given time sufficient for completion of the crop harvesting.

Information regarding the project impacts and the actual boundaries of the land take in favor of the project should be well documented and disseminated throughout the project influence area at regular intervals in written forms<sup>6</sup> and verbally during public consultation meetings and non-written forms in relevant local languages. Notification and leaflets describing the adopted land acquisition principles

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<sup>5</sup> Unless the EBRD requests preparation of RAP and in that case RAP will establish cut-off-date.

<sup>6</sup> Project Information Booklets and LRRP publicized and available to any interested person, posters displayed in public areas and information boards in the buildings of local Municipalities within project influence areas.

should be delivered to each affected household at the early stage of project development. In the project area all PAPs speak Georgian, so the leaflets on Georgian language will be sufficient.

### 4.3. Eligibility Criteria for Compensation of PAPs

This LALRF determines the eligibility criteria of project affected persons (PAPs) and provisions for compensating all types of losses: land, crops/trees, shelter, structures, business/employment, and workdays/salaries/wages. The eligibility criteria define who is eligible for receiving compensations and what are the minimum cash values that should be recognized as fair compensation and starting point for amicable negotiations. The costs less than defined in the eligibility matrix will be deemed as not fair.

All PAPs, including land users without title or legitimate possession will be compensated for lost income and assets. The minimum rate for compensation of land loss will be defined as the replacement cost at current market value in the amount to allow PAPs to acquire land of the same area, productivity and designation in vicinity of current location, as described in the LALRF.

The criteria for eligibility of compensation are based on PAPs belonging to one of three groups:

1. those who have certified and/or formal rights to use the occupied land.
2. those who do not have formal legal rights to land at the time of the signing agreement but have legitimate right to claim to such land or assets - provided that such claims are recognized under the laws of Georgia; (Untitled APs who were legitimate leasers under the old Soviet system either, plots with house or regularly cultivated/used their land, but do not have plots with a house, or the “traditional users”, who were regularly using the land plots but do not have any documents to claim their rights on land.)
3. those who have no legitimate possession or is not eligible to claim for recognizable legal right to the land they occupy (i.e., land users without registered certificate and informal settlers).

PAPs that are entitled to compensation under this Project include:

1. Persons whose houses or structures are in part, or in total, affected temporarily or permanently by the Project.
2. Persons whose residential dwellings, supplementary structures, fences/walls or commercial premises and/or agricultural land (or other productive land) is in part, or in total, affected (permanently or temporarily) by the Project.
3. Persons whose business, economic activity or income is affected temporarily or permanently by the Project related land take.
4. Persons whose employment or hired labor is affected, temporarily or permanently, by the Project.
5. Persons whose crops (annual and perennial) and/or trees are affected in part, or in total, by the Project, and
6. Persons whose access to community resources, public facilities or property is affected in part, or in total, by the Project.

Where land is to be acquired, landowners (PAPs) with registered Title Certificate, traditional land-users and/or legitimate possessors of land/real property eligible to legalization of ownership rights will receive cash compensation for land at replacement market value in the amount that will allow them to purchase a land parcel of equal size and productive value and be satisfactory to the PAP.

Those PAPs that are not eligible for legalization of ownership rights under any rules or regulations being in force in Georgia and are not attributed to the category of traditional users are not eligible for land compensation but will receive compensation for assets attached to project affected land and other assistance as required (especially in the case of vulnerable PAPs).

Households headed by single women with dependents and other vulnerable households will be eligible for further assistance to fully mitigate project impacts. Table 4-1 below presents the Entitlement Matrix that defines the minimum compensation rates as starting point for negotiations.

It is worth noting that the Entitlement Matrix presented in the LALRF will be used as a basic document, that will be altered in due manner to reflect any nuances detected during DMS, census, socio-economic surveys and inventory project affected assets undertaken during the land acquisition and provide relevant mitigation measures or reasonable approach for loss and impact compensation.

**This Entitlement Matrix is generic and covers all potential types of impacts theoretically expected for different projects. More specific documents, like Resettlement Action Plan” or “Land Acquisition and Resettlement Execution Report” will focus only on those impact aspects, which are relevant for the Ruisi WPP.**

#### 4.3.1. Compensation Entitlements

Entitlement provisions for PAPs losing land, houses, assets, business, income, and rehabilitation subsidies, will include provisions for permanent and temporary loss of land, residential house and commercial buildings, annual crops and trees, relocation subsidy, and business loss allowance based on tax declarations and/or documented lump sums. These entitlements are detailed below:

#### 4.3.2. Land

**Loss of land (agricultural, residential, and commercial)** will be cash compensated based on voluntary negotiation. It should be noted that the significant part of the purchased land, which is not occupied by permanent facilities, will be returned to the owner after completion of construction. The ex-owners can use this part of land free of charge or for symbolic price in the same way as they used it before the project. However, the minimum proposed cost should be the replacement cost at current market value identified at the moment of signing agreement. The minimum unit rate per square meter of land will be determined for each category of land separately, based on comparison of the registered purchase/sale agreements and actual transactions or offers in official advertising resources. JSC Wind Power has hired independent licensed appraiser to meet the requirement stipulated under the LALRF, follow the LRRF’s valuation methodology and determine unit rates for compensation per each type of loss any PAP may incur as a result of proposed projects. The valuation report is attached as Annex 2 to this report.

The amount of cash compensation shall allow PAP to acquire alternative land parcels equal in value and productivity to the parcel released for project purposes.

Additionally, any fees/taxes related to processing legalization of ownership rights to project affected land parcel being under legitimate possession of PAP, costs and fees for sub-division, registration of inaccurate records at the NAPR registration of transaction of ownership title, as well as any taxes incurred according to Georgian legislation, will also be covered by the JSC Wind Power.

When greater than 10% of an income generating land is affected, PAP (land-users, leaseholders, and sharecroppers) will receive an additional allowance for severe impacts equal to the one-time



subsistence in the amount<sup>7</sup> of minimum subsistence level of income<sup>8</sup> for the family of five for 3 months. The accepted alternative option for calculating allowances is to increase the minimum land price by 5-10%.

#### 4.3.3. Shared Agricultural Land

**Loss of shared agricultural land (pasture, grazing)** local communities losing access to shared pasture, hay field, grazing will be provided with access to the replacement land of similar size, productivity, and location acceptable to affected community. Provision of such replacement land will be the responsibility of local government. However, the JSC Wind Power will bear the responsibility to monitor the process and ensure that access to such replacement land is timely provided to project affected community at the earlier stage of project cycle to prevent deterioration of livelihood within project influence area. If such replacement is not possible, Livelihood Restoration Plan will be prepared and implemented to address the needs of affected community and preserve their livelihood at least similar to pre-project level.

At present, the assessment of the affected pastures is conducted and included in Annex 4 "Impacts on Pastures of Common Use". The study demonstrates that the potential impact on pastures is negligible, and no livelihood restoration is required.

#### 4.3.4. Structures

**The minimum cash compensation for the affected structures** is defined as follows: structures (residential houses, supplementary constructions, fences, walls, commercial facilities, etc.) are cash compensated at replacement cost (i.e. Construction Cost) at current market value calculated for project affected structure and other fixed assets free of salvageable materials, depreciation and transaction costs.

Construction cost calculation considers market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, the cost of any labor and contractor's fees, and the cost of any registration and transfer, design works and any applicable taxes/fees. The compensation for residential houses/commercial buildings will include the cost of lost water and electricity connections.

In case of partial impacts, full cash assistance to restore the remaining structure will apply; if partial impact/demolition of a section of the building threatens deterioration of the structure or raises safety and security concerns, cash compensation will apply to the entire building and affixed assets of the affected structure.

#### 4.3.5. Residual land

Residual land (the portion of land that is left after the land is divided and purchased), will be fully compensated in case if it becomes not usable for the purposes used before the project (if it is too small for further agricultural/residential use or if the access to the land is limited).

<sup>7</sup> Current figure to be obtained from State Department of Statistics of Georgia (Geostat) publications

<sup>8</sup> This figure subjects to update on a monthly basis therefore must be refreshed at the moment of specific LRRP preparation. The data is available on the official website of the State Department of Statistics of Georgia. link: [http://www.geostat.ge/index.php?action=page&p\\_id=179&lang=eng](http://www.geostat.ge/index.php?action=page&p_id=179&lang=eng)

#### 4.3.6. Trees (Perennials)

The minimum cash compensation for the affected trees is defined as follows: cash compensation shall reflect income replacement for fruit bearing trees. Cash compensation will be calculated at current market value and according to type, age, and productive value of project affected fruit tree. Annual yield capacity of a mature fruit bearing tree (age and corresponding productivity to be fixed during the inventory of losses) multiplied to market price of a fruit (kg/GEL) and multiplied to the number of years required to grow a new tree to same productivity age. In addition, each fruit bearing tree shall be compensated for purchase of seedlings. PAPs will be eligible to dispose logged trees themselves. Construction Company will log down project affected trees and ensure free delivery of timber to the residence of PAPs.

#### 4.3.7. Annual Crops

The minimum cash compensation for the affected annual crops is defined as follows: cash compensation at current market rates for the net annual harvest by default. Crop compensation will be paid to landowners, land users, tenants or other users based on their specific sharecropping agreements being made between these parties, if any.

#### 4.3.8. Businesses

The minimum cash compensation for the affected businesses is defined as follows: compensation to business owner for permanent business losses will be executed in cash for one year's income based on a tax declaration or, if such declaration is not available, based on the official subsistence minimum for the families of 5 persons (for 1 year); compensation for temporary business interruption will be given in amount covering the income of the interruption period based on a tax declaration or, if it is not available, one-time subsistence will be calculated in the amount of subsistence minimum for a family of five members multiplied by months of interruption.

Business workers and employees: Indemnity for lost wages for the period of business interruption. In cases where tax declaration reports are unavailable, then official subsistence minimum multiplied to the number of months of actual stoppage of business.

#### 4.3.9. Agricultural land leaseholders and workers

Affected leaseholders will receive either a renewal of the lease in other plots or cash corresponding to the yearly yield of land lost for the remaining years of the lease up to a maximum of 1 year.

#### 4.3.10. Residential land renters/leaseholders and house renters

The minimum cash compensation for the affected residential houses is defined as follows: The AHs who have leased land and/or a house for residential purposes will be provided with a cash grant of three (3) **months'** rent at the prevailing market rate in the area and will be assisted in identifying alternative accommodation.

#### 4.3.11. Relocation subsidy

PAPs forced to relocate will receive a one-time relocation subsidy sufficient in average to cover transport costs and additional expenses for the period of adaptation to new site. The mentioned allowance value is defined as an averaged fixed figure: for this project it is determined that the relocation allowance is equal to the monthly subsistence minimum for the families of 5 persons, multiplied by 3 months and plus averaged expenses for transportation of goods (200 GEL).

#### 4.3.12. Additional Rehabilitation Measures

In compliance with ESP and PR 5 the LALRF shall **envisage** additional rehabilitation measures to be provided for vulnerable and severely affected PAPs, as far as they are detected during surveys (DMS, census, socio-economic survey, title search) and LRRPs preparation connected with the land acquisition.

Assistance for vulnerable people: In addition to the compensation of lost land and assets vulnerable PAHs will be provided with additional rehabilitation measures; in particular, one-time allowance set to payment of the minimum subsistence level for family of five members for 3 months<sup>9</sup>. The accepted alternative option for allowances is to increase the minimum land price by 5-10%.

PAPs experiencing project severe impact will also be provided additional assistance: one-time rehabilitation allowance for severe impact will equal to three month of the subsistence minimum level for family of five members for 3 months; The accepted alternative option for allowances is to increase the minimum land price by 5-10%.

#### 4.3.13. Official Fees and Taxation

In none of these cases, the PAPs will be liable for any taxes and eventual transaction fees. Fees for Notary service, court related administrative fees, fees for legalization, sub-division and **registration** at the NAPR and any taxes will be paid by the JSC Wind Power. Additionally, charges to cover bank service fees will be included on top of the amount of cash **compensation** to be received by PAPs at the banks.

### 4.4. Entitlement Matrix

Table 4-1 Entitlement Matrix (with the Reference Minimum Values for Compensation)

Type of Impact	Application	Definition of PAP	Compensation Entitlements
Permanent loss of all types of land (arable, residential, industrial, commercial)	All land losses independent from impact severity	PAPs (with fully registered title)	PAPs will receive cash compensation at full replacement cost at current market value <sup>10</sup> . <b>The unit rates are confirmed in the Valuation Report attached to LALRF.</b> The Final amicably agreed costs will be documented in "Land Acquisition and Resettlement Execution Report". If any remaining part of the land owned by the registered owners is no longer appropriate for use, such remaining part will also be purchased subject to the agreement with the owner. The PAPs will be allowed to use the residual land not taken permanently for deploying facilities, despite the fact that the entire plot has been purchased by JSC Wind Power

<sup>9</sup> Amounts to be updated monthly based on national indicators for given month.

<sup>10</sup> Detailed description of replacement cost at current market value is described in the Section: Methodology for valuation and determination of unit rates.

Type of Impact	Application	Definition of PAP	Compensation Entitlements
		PAPs (possessors of legalizable land parcel or traditional users)	Assistance to PAPs in the process of legalization of project affected land parcel being under their possession. Once legalization and registration of ownership title is accomplished, land acquisition will be undertaken and PAP will receive cash compensation at full replacement cost according to current market value and unit rate assessed and approved in LALRP. Traditional users that could not be legalized, will receive compensation without prior registration, based on compensation agreement (instead of sales/purchase agreement) The PAPs will be allowed to use the residual land not taken permanently for deploying facilities, despite the fact that the entire plot has been purchased by JSC Wind Power
		Leaseholder of private or public lands	Free of charge renewal of lease in other plots of equal value/productivity of affected land parcel or cash compensation equivalent to market value of gross yield of affected land for the remaining period (up to a maximum of 1 years). In addition, cash compensation to reimburse the proven investments incurred by the Leaseholder to improve the leased land.
		Leaseholder (not registered)	Cash compensation equivalent to market value of gross yield of affected land for the remaining period (up to a maximum of 1 year).
		Non-titled, non-legalizable land users/Squatters	PR5 does not require compensation for land to informal users. Replacement land can be offered as a livelihood restoration measure. APs losing land plot, which is non-legalizable according to current legislation, will not receive compensation for land but will receive compensation for lost assets associated with the land plot (structures, crops, trees etc.).
Permanent loss of community land (pastures, grazing land)		Local community losing access to pasture, grazing land	Affected community will be free of charge provided access to replacement land of similar size, productivity, and location acceptable to affected community by the local government. If such replacement is not possible, Livelihood Restoration Plan will be prepared and implemented to address the needs of affected community and preserve their livelihood at least similar to pre-project level.
<b>Structures</b>			
Residential house	Project affected residential dwellings subject to partial/full demolition	PAPs with registered ownership title; PAPs declared as legitimate possessors	All impacts on residential house will be considered as full impacts disregarding the actual impact percentage. Impacts will be compensated in cash at full replacement costs free of depreciation and transaction costs or tax costs incurred according to Georgian legislation. In addition, Livelihood Restoration initiatives will be provided to PAPs that may face deterioration of livelihood through indirect impact of proposed project <sup>11</sup> .

<sup>11</sup> (e.g. if project impact is extended only on residential dwelling, it is subject to full cash compensation at replacement costs and additional one-time allowances to transport salvaged materials and personal belongings. However, associated income generating assets (agricultural land/private commercial facilities) may remain outside of project impact (on other plots); correspondingly, these assets may not be included in the suggested compensation package. PAPs after moving and settling down to a new location may at least temporarily lose income due to lack of access (increased travel time, complicated accessibility) to the above mentioned income generating assets not affected by the proposed project.

Type of Impact	Application	Definition of PAP	Compensation Entitlements
		Residential tenants/renters	One-time allowance equals monthly rental fee (specified in the lease agreement) multiplied by 3; if Lease agreement is not available, monthly subsistence minimum for the family consisting of 5 persons multiplied by 3; <sup>12</sup> In addition, one-time technical assistance for transportation personal belongings to a new location; or one-time cash allowance to cover costs for transportation personal belongings. LRRP developer consultant will determine reasonable amount depending on the project nature and specificity.
Commercial structure	Project affected commercial facilities subject to partial/full demolition	Titleholder	Cash compensation at replacement cost at current market value calculated for project affected structure and other fixed assets free of salvageable materials, depreciation and transaction costs or tax costs incurred according to Georgian legislation. If partial demolition threatens deterioration of structure or raises safety and security concerns the cash compensation, will apply to the entire building and affixed assets.
		Tenant of commercial facility	One-time allowance equal to monthly rental fee (specified in the lease agreement) multiplied by 3; if Lease agreement is not available, monthly subsistence minimum for the family consisting of 5 persons multiplied by 3.
State/ Municipality owned buildings affected by project	Project affected state/ Municipality owned buildings subject to partial/full demolition	IDPs, refugees, squatters occupying facilities for residential purposes	Accommodation in a government resettlement area or a self-relocation allowance as stipulated in above.
Fences/Walls	All PAPs with fences to be affected	All PAPs	Cash compensation at replacement (construction) cost according to the material and linear meter length of affected fence/wall.
Annual Crops	Crops affected	All PAPs (including squatters)	Crop compensation in cash at gross market value of actual or expected harvest. Compensation for this item will be provided even in case if the crops were harvested
Perennials standing on private land parcels	Project affected Fruit bearing perennials	All PAPs (including squatters)	Cash compensation at market value on the basis of type, age, and productive value of fruit tree; Each fruit bearing tree in addition shall be compensated for purchase of saplings. PAPs will be eligible to dispose logged trees themselves. Construction company ensures free logging and delivery of timber to the residence of PAPs.
	Project affected non-fruit bearing perennials	All PAPs (including squatters)	No cash compensation will be issued for perennials not bearing fruits. PAPs will be eligible to dispose logged trees themselves. Construction company ensures free logging and delivery of timber to the residence of PAPs.
<b>Income loss</b>			

<sup>12</sup> If there are cases where the tenant/renter has paid rent in advance for a longer period of time, the land will be requested to reimburse the money to the tenant/renter for the corresponding period if adequate evidence is available.

Type of Impact	Application	Definition of PAP	Compensation Entitlements
Lost Business and Employment	Temporary or permanent loss of business or employment	All PAPs (including squatters)	<b>Business owner:</b> (i) Cash compensation equal to one year net income, as defined by the fiscal documents for the last year, if loss is permanent; if tax declaration or other fiscal documents proving income are not available, compensations will be paid based on the official subsistence minimum for the families of 5 persons (for 1 year) (ii) cash compensation for the period of business interruption, if loss is temporary. <b>Worker/employees:</b> Indemnity for lost wages for the period of business interruption, if the period of interruption is less than 3 months. For the cases of permanent loss of business or interruption exceeding 3 months, the employees will receive compensations equal to 3 month of salary. In cases where tax declaration reports are unavailable, then official minimum monthly subsistence value will be used instead of the value of salaries.
		Agricultural workers losing their contract	Cash indemnity corresponding to their salary for the remaining part of the agricultural year, and where needed livelihood restoration measures.
<b>Additional Rehabilitation Measures</b>			
Technical assistance in legalization, registration procedures		All PAPs with registered title/possessors of legalizable land parcels	Free of charge technical assistance to PAPs during legalization, sub-division of project affected parcel, registration of corrections and/or sales transaction. Project related State taxes, official fees and transactions costs if not waived will be covered by the Project Proponent.
Relocation	Transport and transitional Livelihood allowances	All PAPs affected by physical relocation	Provision of sufficient allowance to cover transport expenses and livelihood expenses for the period of adaptation to new site. The mentioned allowance value is defined as an averaged fixed figure: for this project. It is determined that the relocation allowance is equal to the monthly subsistence minimum for the families of 5 persons, multiplied by 3 (3 months) and averaged expenses for transportation of goods (200 GEL).
Community Resources			Access shall be maintained or reinstated; Rehabilitation/substitution of the affected structures/utilities (i.e. bridges, roads, schools, health-centres, potable water supply systems, irrigation channels, etc.)
Severely Affected AHs		AHs losing 10% or more of agricultural land or income;	Allowance equivalent to 3 months of minimum subsistence income for families consisting of 5 persons** and employment priority under the project.
Vulnerable PAPs		PAPs below poverty line; Female headed households; IDPs	Allowance equivalent to 3 months of minimum subsistence income for families consisting of 5 persons** and employment priority in project-related
Temporary impact	Loss of access to land parcel	Owners/Users	Temporary access will be set up by Construction Company. In cases of temporary loss of access to land parcel results in loss to crops, the construction company will compensate APs. All losses and amount of due compensation shall be determined according to the principles of compensation entitlements provided under this LALRF and relevant LALRP.
	Avoidance of interruption of temporary access road to the business activity	Business units	Temporary access will be set up by Construction Company.

Type of Impact	Application	Definition of PAP	Compensation Entitlements
	Temporary loss of income caused by occupying land parcels for the camps and quarries	Owners/users	During camps' site selection process, Construction Company should coordinate with relevant state agencies and give priority to vacant lands not used for agricultural /residential purposes. In case the land parcels selected for camps and quarries will have private land-users, all losses and amount of due, compensation shall be determined according to the principles of compensation entitlements provided under this LALRF and relevant LALRP.
Any other unforeseen impacts	As required	Any	Project Proponent and the construction contractor will address and mitigate/compensate unforeseen resettlement impact during project.

## 5. Valuation Methodology

### 5.1. Valuation Principles

We would like once again to stress that the land acquisition for the Ruisi WPP Project is being implemented on the basis of voluntary negotiations. However, this LALRF provides recommendations for valuation of the affected assets and methods for deriving the minimum compensation costs that could be accepted as fair price. The actual Valuation Report prepared by the independent, certified valuator is attached to this LALRF.

Valuation of project affected land and assets shall consider the following:

- Applicable current regional schedules for land values obtained from municipal land commissions, if available
- Applicable current schedules for valuing structures, crops, and trees from local municipalities, if available
- Applicable current market prices
- Loss of future income or value.

The calculation of unit value will be done keeping in consideration the current market rate so as to meet with the replacement cost of the land and lost assets etc. An experienced and registered independent local company shall be employed to do the valuation of land, structures, buildings, trees, crops etc. The approach of the evaluator will consider the assessment for each type of land and assets by location. The valuation should be done when the census and DMS (detailed measurement survey) are conducted by the surveying company who prepares the map of affected plots with demarcation of cut-off areas. The valuation company will engage experts for respective areas who will undertake site visits for physical verification of each category of the losses. The expert team will also consider the reference of previous valuation if available and use latest release of market survey.

Based on this methodology the unit rate will be determined. The unit rates may be based on the evaluation agency's assessment with their standard methods for calculating the sample assets.

### 5.2. General overview

Valuation methodology and determination unit rates for compensation loss of assets and income associated to land acquisition and easement will be calculated by an independent valuation expert to be recruited by the Consultant in line with the requirements of ESP 2019 and the methodologies describe below.

### 5.3. Project Affected Land

Land replacement cost at current market value will be determined by the licensed appraiser based on the International Valuation Standards (IVS). These standards offer three appraisal methods:

1. Sales Comparison Approach<sup>13</sup>
2. Income Capitalization Approach<sup>14</sup>
3. Cost Approach<sup>15</sup>

#### 5.3.1. The Sales Comparison Approach

This approach is well established in international practice. ***Sales Comparative Approach*** is often used if the real property market sub-segment is active and the information on sales transactions is available to determine comparable properties and undertake comparative analyses of the prices of land parcels sold (and/or listed for sale) for the moment of appraisal. Sales Comparison approach derives a value indication by comparing the subject being appraised to similar properties that have sold recently. This is one of the best methods for estimating value when ample supply of recent sales of properties with similar characteristics is available. The sales comparison approach relies upon development of a value estimate from prices paid in the open market for properties with adequate exposure to ensure that the prices represent fair market value. The appraiser analyzes market sales quantitatively, qualitatively, or both in deriving a value indication. **Sales Comparison method is accepted as the priority method for land valuation under this LALRF.**

#### 5.3.2. Income Capitalization Approach

**The Income Capitalization Approach** is a valuation method appraisers and real estate investors use to estimate the value of income producing real estate. It is based upon the premise of **anticipation** i.e., the expectation of future benefits. This method of valuation relates value to two things:

1. The "market rent" that a property can be expected to earn; and,
2. The "reversion" (resale) when a property is sold.

The future cash flows dictate what the present value should be and what he/she is willing to pay for the property. Income capitalization converts anticipated cash flows into present value by "capitalizing" net operating income by a market derived "capitalization rate". **The Income Capitalization Approach is**

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<sup>13</sup> The Sales Comparison Approach is based upon the theories of supply and demand, balance, and substitution. The theory of substitution holds that the value of a property replaceable in the market tends to be set by the cost of acquiring an equally desirable "substitute" property. The theories of supply, demand, and balance are somewhat inter-related in that supply and demand forces tend to move toward equilibrium in the market.

<sup>14</sup> Income Capitalization is a valuation method appraisers and real estate investors use to estimate the value of income producing real estate. It is based upon the premise of anticipation i.e., the expectation of future benefits. To an investor, the future cash flows dictate what the present value should be and what he/she is willing to pay for the property. Income capitalization converts anticipated cash flows into present value by "capitalizing" net operating income by a market derived "capitalization rate".

<sup>15</sup> The Cost Approach is based on the principle of substitution which asserts that no prudent buyer or investor will pay more for a property than that amount for which the site could be acquired and which improvements that have equal desirability and utility can be constructed without undue delay. It is a method of appraising property based on the depreciated reproduction or replacement cost (new) of improvements, plus the market value of the site. This approach has the most validity/reliability when improvements are new or near-new. For older/aged structures, the cost approach may not be relevant due to the greater subjectivity involved in estimating depreciation. This approach has the most validity/reliability when improvements are new or near-new. For older/aged structures, the cost approach may not be relevant due to the greater subjectivity involved in estimating accrued depreciation.



proposed as an alternative method of valuation for this LALRF for the cases, where the sales comparison method can't be used due to the lack of market data.

### 5.3.3. The Cost Approach

The Cost Approach is based on the principle of substitution which asserts that no prudent buyer or investor will pay more for a property than that amount for which the site could be acquired and which improvements that have equal desirability and utility can be constructed without undue delay. It is a method of appraising property based on the depreciated reproduction or replacement cost (new) of improvements, plus the market value of the site.

## 5.4. Project Affected Structures

Construction cost of project affected structures is best to be determined by professional assets Valuer (licensed appraiser). Valuation of structures shall consider size of the structure and construction materials used. In determining replacement cost or design of replacement structures, depreciation of the asset and the value of salvageable materials shall not be taken into account.

Considering that these project is focused on Highway construction, impact is most likely anticipated towards residential houses, supplementary structures, fences, stone walls, commercial facilities (like shops, so called "kiosks", mini markets, beauty salons, car repair ramps, car wash facilities, etc); often may be affected supplementary structures, such as barn for cattle or poultry, not regularly but sometimes outside toilets and WC are attached to the stone walls standing along the roads.

All project affected structures (residential houses, supplementary structures, commercial facilities etc.) will be site visited. In the presence of property users/owners detailed inspection will be undertaken and construction cost<sup>16</sup> report prepared. Replacement cost will be identified considering market survey and data collection on market price of construction materials, labour force, transportation, permits and other costs related to construction. No deductions will be applied for depreciation, salvaged materials and transaction costs.

During determining cash compensation amounts for each project, affected residential house or supplementary structure being under ownership/possession of individual households construction cost calculation should be added up with additional amount enough to allow PAP hiring local construction group to expedite accomplishment of new structures.

For the partial impact (if the loss is less than 15% then compensation is paid for the repair of the affected structure), unless such partial loss renders the structure unusable and losses its function, in such case it will be compensated in full. Valuation of replacement dwellings shall include the cost of sanitation facilities. Valuation also shall include the cost of access to water supply if the displaced structure had access or if the replacement location does not provide access. Estimated costs shall be sought from PAPs and other local residents and from contractors and suppliers in the affected areas. These estimates do not include the cost of land. Incomplete dwelling units (not used as residential houses for the moment of surveys) or structures that have collapsed before project started shall be valued based

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<sup>16</sup>If the number of project affected structures is not large and the structures are not rather similar, then each of them can be evaluated separately. To do so an architectural drawing of the existing structure will be prepared first; then based on the drawing the construction cost report will be prepared. The report is mainly a table with following columns: description of item, number of items, price of item, total per item. Besides the construction should consider labour force (man/days), social tax, income tax, construction company profit and VAT; plus cost of transportation disposal and construction materials, service fee for architectural drawings fees to obtain construction permits. Pursuant to the PR 5 of the ESP 2019 no depreciation or salvaged materials cost should be deducted from the amount of cash compensation determined as replacement (construction cost) of project affected structure.

on replacement cost of materials. Monetary compensation only, not in-kind replacement shall be offered for such units.

Helpful to study current market values through some preliminary research of local construction market in the project region; collection of data on sales prices if advertised on new developments or houses, commercial facilities listed for sale. Shops trading various construction materials locally will be helpful to determine reasonable amount of unit rate per 1 sq.m. of construction cost to evaluate construction cost at current market price and compensate PAPs for project affected structures.

## 5.5. Project Affected Annual Crops

Annual crops will be valued Crop compensation in cash at market rate by default at gross crop value of expected harvest for 3 years.

## 5.6. Project Affected Perennials

### 5.6.1. Non-fruit bearing, decorative perennials

No cash compensation will be issued for perennials not bearing fruits. However, a cash amount will be allocated per each affected non-fruit bearing tree to allow the PAP to purchase saplings and plant them on the remaining portion or on a newly allocated replacement land parcel.

Construction Company ensures free logging and delivery of timber to the residence of PAPs.

### 5.6.2. Fruit - bearing perennials

Cash compensation at market value based on type, age, and productive value of fruit tree. In addition, compensation for each fruit bearing tree will be available for the purchase of saplings and planting on the remaining portion or on a newly allocated replacement land parcel.

Additionally, the Construction Company ensures free delivery of timber to the residence of PAPs.

The unit rate for replacement value of project affected fruit-bearing perennials will be calculated based on the methodology described in the LALRF. The average productivity (kg/yr/tree) of each mature fruit bearing perennial will determined during the inventory of project-affected trees in discussion with PAPs and representatives of local government.

The number of years required for saplings of 2-3 years to reach the same productivity has been determined based on the available scientific research materials. Please see Annex 2.

The market price (GEL/kg) for each type of fruit will be obtained during census, socio-economic survey, and data collection at the local agricultural market.

The Unit rates per each type of fruit tree affected by proposed project will be calculated according to the following formula/scheme:

Cost = Average yield capacity of mature tree (kg/yr/tree) X by the number of years required for 2-3 years sapling to grow to the same productive lever (No of yrs) X Market price of a fruit (GEL/kg).

The actual rates are provided in the attachment to this LALRF (Valuation Report).

Limitation of the land use/ownership, the servitude The land owners shall be compensated for the hampered agricultural activities or delay in using their lands, as well as for plantings, agricultural crops

and/or real property during the construction and operation on the land under the servitude (limitation of title).

The attached Valuation Report (Annex 2), prepared by the certified valuator, provides basic value for compensation to be used in negotiations as a minimal price. These values are derived as replacement costs for the affected assets and other losses

## 6. Implementation setup and Management

### 6.1. Roles and responsibilities

The JSC Wind Power is the owner of the Project. The JSC Wind Power shall be responsible for the implementation of the LALRF in close partnership with local self-governance authorities, namely the municipalities of Kareli and Gori. The JSC Wind Power shall assist the project-affected persons in protecting their rights and preparation of the documents required for the registration of the land to be acquired, agreement on land use and agreement on easement. Compensation/rehabilitation activities shall be implemented prior to the beginning of construction.

Once the LALRF has been adopted, all parties involved in the Project, including the JSC Wind Power and the CW Contractor, are obliged to implement the requirements of this document. Responsibilities will be shared between the JSC Wind Power and the Contractor and other involved agencies, according to the following table:

Table 6-1 Responsible entities for implementation of LRRF

Task	Responsible Entity
Information disclosure to all Project Affected People	JSC Wind Power
Development of the “Land Acquisition and Resettlement Execution Report”	External consultants together with JSC Wind Power
Assistance to affected population to legalize their properties	JSC Wind Power
Negotiations and land acquisition activities, prior to construction commencement	JSC Wind Power
Payment/provision of compensation packages	JSC Wind Power
Provision of resettlement assistance	JSC Wind Power
Grievance management	Grievance Redress Committee organized by JSC Wind Power and including Municipal Authorities
Monitoring and reporting in respect of land acquisition and/or temporary land occupation carried out after construction commencement	JSC Wind Power and CW Contractor

### 6.2. Social and Resettlement Team of JSC Wind Power

The resettlement team consists of manager and 4 officers assisting the manager in managing the LAR process. If needed the JSC Wind Power will engage independent consultants for developing LALRP or for executing LAR actions, like census, detailed measurement survey, inventory of losses etc. For valuation of the lost assets the independent consultant (Audit escort LLC) has been engaged.

Apart from the Resettlement team, JSC Wind Power has a social team managed by qualified Social Manager. It is planned to hire two CLOs to assist the Social Manager. The Social team will be engaged in public consultation process and grievance management.

### 6.2.1. Land Acquisition Process

Land team members will conduct meetings with small groups of landowners/users in each affected village as well as individual face-to-face meetings, introducing the Project details: compensation packages and prices per land, crops and any other losses. After the initial communication, a detailed inventory of the affected land plots will be conducted only upon the consent of landowners/users. Land inventory is conducted by the Project Land team members, and it is attended by the landowners/users of the affected land plots. Upon completion of the inventory, each party (the Project representative and a landowner/user or their family member) will sign the forms with inventory details recorded in them. As most of the land plots affected by the Project are fields of grains and barley (even in the case of other annual crops mostly only one type of annual crop is produced on the affected land plots: corn, cabbage, onion, etc.), the inventory process will be fast.

All inventory details will be discussed individually with Land Users / Owners. They will be provided with land agreements and agreement details will be explained to them clearly. Only after the successful negotiation, the signing of agreements is arranged. Draft agreements and annexes will be given to all affected households after the negotiation process.

If any legal support is required for the preparation of all required documents from the affected household, the Project land team members will provide any assistance required including all financial costs (notary, NAPR, etc.). The landowners/users will be provided assistance with all legal issues: inheritance, registration, court, and bank if they required help and were willing to use it.

All agreements will be signed by users/owners themselves or their legal POAs as well as the Company legal representative.

### 6.2.2. Land Agreements

There will be two kinds of agreements used for land acquisition:

- Land Purchase agreements – agreements signed with landowners.
- Compensation agreements – agreements signed with land users.

After construction works agreements for limited use of land will be signed with most former landowners/users to continue the use of land areas with temporary effect on them. Each agreement will contain detailed maps of areas that can be used by former owners/users and the list of crops allowed to be produced there.

The eligibility of AHs and PAPs will be defined in accordance with the principles set forth in the Eligibility Matrix and Eligibility Criteria.

## 6.3. LALRP and Land Acquisition and Resettlement Execution Report

In case of voluntary negotiation-based land acquisition, it is not necessary to prepare Land Acquisition and Livelihood Restoration Plan (LALRP). Accordingly, it is not planned to develop Resettlement Action Plan for the project. JSC Wind Power is encouraged to conduct negotiations with the PAPs and execute land acquisition based on amicable agreements, following the principles set forth in this RALRF. The main requirement is to conduct internal monitoring and properly document the land acquisition process.

However, at certain moment, when the JSC Wind Power finishes the detailed design of the Ruisi WPP, the Bank may request preparation of the Resettlement Action Plan for the remaining private land plots, not acquired yet by the project. In that case, the RAP will describe in detail the previous process of land acquisition, conducted by the company before drafting the RAP.

JSC Wind Power shall establish procedures to monitor and evaluate the implementation of the resettlement plan and shall take corrective action if necessary, during implementation to comply with the principles set forth in this LALRF. JSC Wind Power shall ensure that the implementation of the land acquisition is verified through the submission and approval of the “Land Acquisition and Resettlement Execution Report” by the Bank upon completion of all activities.

“**Land acquisition and resettlement execution report**” refers to a report finalized upon completion of land acquisition, resettlement and livelihood restoration activities, which includes: summary of project impacts (both physical and economic displacement) and principles guiding the resettlement activities; description of efforts to avoid and minimize displacement; summary of consultation events and outcomes, including how they influenced entitlements and other features of the land acquisition, resettlement, and livelihood restoration activities; description of the compensation delivery process; description of any issues encountered and how they were resolved; summary of grievances received and how they were resolved, including the list of any grievances and court cases pending at the date of submission of the report; description of resources mobilized to plan and implement land acquisition, resettlement, and livelihood restoration activities.

Below we provide the outline of the content for the “**Land Acquisition and Resettlement Execution Report**”:

### 1. Project Description

- General overview and context
- Description of the project layout and activities

### 2. Census Data and Inventory of Losses

- Scope of the project impact
- Impact on land
- Impact on buildings and structures
- Impact on harvest of annual crops
- Impact on perennial plants
- Impact on business and employment
- Inventory of the severe impacts
- Vulnerable groups of AHs
- Individual compensation table including all affected households, related impacts and eligible compensations

### 2. Compliance of Compensations

- Table of compensations and allowances for each affected household (in accordance with the individual contracts)
- Comparison of the table of compensations with the actually executed payments (compliance with the contract requirements)
- Comparison of compensations by different tallies (land; annual crops; trees; structures; business losses; allowances for sever impact and for vulnerable households etc.). Integrated tables showing the eligible compensation tallies and actual payments;

### 3. Process Compliance

- Compliance of the communication and public consultation process
- Compliance of the grievance redressing process

### 4. Satisfaction Survey

- Compensation and livelihood restoration
- Public consultations and information efficiency

- Grievance redress

### 6.3.1. Reporting

**JSC Wind Power should develop and keep a set of documents related to land acquisition process:**

- Filled checklists with the results of detailed measurements and Inventory of losses for each affected household. The inventory of losses should be signed by the authorized representative of the head of the household. The checklist should also include brief information related to social status of the household and eligibility for allowances for severe impacts or vulnerable AHs.
- Valuation Reports for each land plot
- Contracts for each land plot/household
- Payment orders confirming execution of compensation payments
- Protocols of public consultation meetings
- Grievance logs
- Information leaflets and lists with the signatures, confirming that the households have received the information leaflets and/or have attended the consultation meetings

## 7. Public Consultation and Disclosure

### 7.1. General overview

Following ESP 2019, and PR 5 and PR 10 requirements, the JSC Wind Power will ensure that this LALRF is translated into Georgian and distributed to local government agencies. Besides, the JSC Wind Power will prepare Public Information Booklet (PIB), i.e. reduced version of the final LALRF in understandable language and format for PAPs. The Public Information Booklet will be prepared into English and Georgia languages and provided to all PAPs and local governments to be publicly disclosed in the project site. Local government representatives are responsible to make the Public Information Booklet accessible to the local population, including potentially affected communities within the project influence area for review, comments and input made during the disclosure period. All comments and suggestions will be collected through the LAR Team and provided to Consultant, Project Proponent and EBRD and if relevant reflected in the final version of the document (LALRF).

The Municipal Authorities will be informed about the project, and their assistance will be solicited in the conduct of the inventory of affected assets and the census of PAPs.

### 7.2. Objectives of Public Information and Consultation

Information dissemination to PAPs and involved agencies is an important part of land acquisition process. Consultation with PAPs and ensuring their active participation will reduce the potential conflicts and minimize the risk of project delays. The main objective of public consultations is:

- Fully sharing information about the proposed subproject components and land acquisition activities with the PAP.

- Obtaining information about the needs and priorities of PAPs, as well as receiving information about their reactions to proposed policies and activities.
- That PAPs are fully informed about the decisions that will directly affect their incomes and living standards, and that they will have the opportunity to participate in activities and decision-making about issues that will directly affect them.
- PAPs are given contact information of project responsible persons from JSC Wind Power and local authorities that will provide timely sufficient feedback to their inquiries
- Obtaining the cooperation and participation of the PAPs and communities in activities necessary for resettlement planning and implementation.
- Transparency in all activities related to land acquisition and resettlement.

### 7.3. Consultation during land acquisition

Public consultation and participation plan will be included in the Project to involve the stakeholders, especially the people either directly benefiting from, or affected by the subprojects, through participation in the design, implementation, and monitoring of the subprojects. All communications will be in the language most appropriate for involved and engaged parties in the project area. During the whole process of land acquisition, the JSC Wind Power's social team will undertake the following:

- Conduct information dissemination and consultation for all PAPs, NGOs and other stakeholders.
- Establish the rates/unit prices to be used as the basis of compensation awards, and confirm land acquisition and impact on properties identified through the DMS/census, demarcation and inventory, in consultation with PAPs;
- Conduct a survey (as part of the IOL/DMS) to:
  - inform them about possible resettlement options.
  - request information from PAPs about their preferences and choices of resettlement options; and,
  - request that PAPs indicate services such as education/ health/markets that they are currently using and their distance from such services.
- Consultation regarding the PAPs preferred option for livelihood stabilization and/or rehabilitation assistance (where required). This applies to PAPs experiencing significant impacts and vulnerable PAPs.

### 7.4. Public Information Booklet

To ensure that PAPs, their representatives, and local government agencies in project areas fully understand the details of the RAP process and are also informed about the compensation and rehabilitation packages applicable to the Project, a Public Information Booklet (PIB) will be prepared by the consultant.

This PIB will be distributed to all PAPs and communities in the subproject area. The PIB will be translated into Georgian. The general contents of the PIB will include the following:

- Brief description of the project, implementation schedule.
- Project impacts, entitlements and rights of PAPs.
- Resettlement and rehabilitation policies for all types of impacts.
- Institutions responsible for resettlement and timeframe (schedule).



- Information dissemination to and consultations with PAPs and stakeholders.
- What to do if PAPs have a question or a problem.
- Outline of the grievance redress procedure; and
- Requirements for monitoring and evaluation, including independent monitoring.

## 7.5. LALRF Disclosure

This LALRF in Georgian will be disclosed on the website of the JSC Wind Power. The LALRF in Georgian will be disclosed to the PAPs at the relevant municipalities. Its English version will be disclosed on the EBRD website together with the ESIA package.

## 8. Grievance mechanism

A grievance redress mechanism will be available to allow a PAP appealing any decision on which they disagree, practice or activity arising from land or other assets compensation. APs will be fully informed of their rights and of the procedures for addressing complaints whether verbally or in writing during consultation, survey, and time of compensation. Care will always be taken to prevent grievances rather than going through a redress process. This can be obtained through careful LAR design and implementation, by ensuring full participation and consultation with the PAPs, and by establishing extensive communication and coordination between the affected communities, the JSC Wind Power, and local governments in general. Complaint & Grievances will be addressed through the process described in detail in the annex 11 of the ESIA (ESIA volume II; Annex 11: Grievance Redress Mechanism).

## 9. Monitoring and Capacity Building

LAR tasks under the Project will be subjected to internal monitoring. No external monitoring is required for the projects.

### 9.1. Internal Monitoring

Internal monitoring will be carried out routinely by JSC Wind Power either directly or through the services of a consultant. The results will be communicated to EBRD through the quarterly project implementation reports. Indicators for the internal monitoring will be those related to process and immediate outputs and results. This information will be collected directly from project team and reported monthly to the company management to assess the progress and results of RAP implementation, and to adjust the work program, if necessary. The monthly reports will be quarterly consolidated in the standard supervision reports. Specific monitoring benchmarks will include:

- (i) Timeliness, information campaign, quality of information and consultation with APs;
- (ii) Status of land acquisition and payments on land compensation;
- (iii) Compensation for affected structures and other assets;
- (iv) Relocation of PAPs;
- (v) Payments for loss of income;
- (vi) Selection and distribution of replacement land areas; and

- (vii) Income restoration activities, including those for waste pickers
- (viii) Results of income restoration activities and compensation provided in terms of measuring extent to which affected livelihoods were restored, identifying gaps, which affected livelihoods were not satisfactory restored.

The above information will be collected by JSC Wind Power, which is responsible for monitoring the day-to-day resettlement activities of the project through the following instruments:

- a) Review of census information for all PAPs;
- b) Consultation and informal interviews with PAPs;
- c) In-depth case studies;
- d) Sample survey of PAPs;
- e) Key informant interviews; and
- f) Community public meetings.

## 9.2. Capacity Building and Training in RAP Implementation

To allow an effective execution of all LAR related tasks some expansion of the capacity on LAR currently available at JSC Wind Power may be needed. Financing for these capacity building initiatives will be included under the capacity building component of the Project.

Capacity building exercise will be needed at the company management level. The designated Resettlement and Social teams at the JSC Wind Power need to be provided with the capacity enhancement related to the LAR planning and implementation and EBRD's policy on Involuntary Resettlement (PR 5). All concerned staff assigned for LAR activities has to undergo a week-long orientation and training in EBRD resettlement policy and management. At the very beginning of Project implementation the training will be provided by a consultant hired by JSC Wind Power. Training will cover the following topics:

- (i) Principles and procedures of land acquisition;
- (ii) Public consultation and participation;
- (iii) Entitlements and compensation & assistance disbursement mechanisms;
- (iv) Grievance redress; and
- (v) Monitoring of resettlement operations.

## Annexes

## Annex 1 Table of Affected Land Plots

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
1	1	2300	Agricultural	State	No	Arable land, State
2	2	278534	Agricultural	State	No	State land
3	3	100000	Agricultural	Private/under registration	No	Arable land, annual crops
4	4	505874	Agricultural	State	No	Arable land, State
5	5	5549	Agricultural	Private	No	Not specified
6		6454	Agricultural	Private	No	Arable land, annual crops
7		8921	Agricultural	Private	No	Arable land, annual crops
8		6000	Agricultural	Private	No	Arable land, annual crops
9		3000	Agricultural	Private	No	Arable land, annual crops
10		6000	Agricultural	Private	No	Arable land, annual crops
11	6	232194	Agricultural	State	No	Arable land, State
12	7	119000	Agricultural	Private Ltd "Agro - 1959", ID:240895242 (Tamaz Kutkhashvili)	No	Arable land, annual crops
13		31000	Agricultural	Private Ltd "Agro - 1959", ID:240895242 (Tamaz Kutkhashvili)	No	Arable land, annual crops
14		2768	Non-Agricultural	Private	No	Non-Agricultural
15		4837	Non-Agricultural	Private	No	Non-Agricultural
16	8					Not specified
17	9	1522536	Agricultural	State	No	Arable land, State
18	10	16358	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
19		6000	Agricultural	Private	No	Arable land, annual crops

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
20		9852	Agricultural	Private co-ownership 4 persons	No	Residential land, annual crops
21	11	15391	Agricultural	Private co-ownership 8 persons	No	Arable land, annual crops
22		5309	Agricultural	Private	No	Arable land, annual crops
23		5835	Agricultural	Private co-ownership 2 persons	No	Arable land, annual crops
24		11825	Agricultural	Private	No	Arable land, annual crops
25		6004	Agricultural	Private	No	Arable land, annual crops
26		5351	Agricultural	Private	No	Arable land, annual crops
27		2422	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
28		4789	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
29		5948	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
30		2304	Agricultural	Private	No	Arable land, annual crops
31		12	9870	Agricultural	Private	No
32	6592		Agricultural	Private	No	Arable land; Partially annual crops, partially perennials;
33			Agricultural	Private	No	Not specified
34	6000		Agricultural	Private	No	Arable land, annual crops
35	13	288500	Agricultural	Private Ltd "Agro - 1959" , ID:240895242 (Tamaz Kutkhashvili)	No	Arable land, annual crops
36		31500	Agricultural	Private Ltd "Agro - 1959" , ID:240895242 (Tamaz Kutkhashvili)	No	Arable land, annual crops

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
37	14	9100	Agricultural	JSC Wind Power/ Private Nora Chkhikvadze	No	Arable land, annual crops
38	15	242061	Agricultural	State	No	Arable land, State
39	16	127452	Agricultural	State	No	Arable land, State
40	17	505874	Agricultural	State	No	Arable land, State
41	18	45000	Agricultural	Private	No	Arable land, annual crops
42	19	4278	Agricultural	Private	No	Arable land, annual crops
43		12493	Agricultural	Private	No	Arable land, annual crops
44						
45		6000	Agricultural		No	
46	20	3501	Agricultural	Private	No	Arable land, annual crops
47		7913	Agricultural	Private	No	Arable land, annual crops
48		3507	Agricultural	Private	No	Arable land, annual crops
49		2528	Agricultural	Private co-ownership 4 persons	No	Arable land, annual crops
50		2995	Agricultural	Private	No	Arable land, annual crops
51		4033	Agricultural	Private	No	Arable land, annual crops
52		2857	Agricultural	Private co-ownership 4 persons	No	Arable land, annual crops
53	21	71201	Agricultural	Private	non-residential 267.m <sup>2</sup> and well	Arable land, annual crops
54		4117	Agricultural	Private	No	Arable land, annual crops
55		7559	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
56	22	2500	Agricultural	Private	No	Arable land, annual crops

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
57		9400	Agricultural	Private Ltd "Bebnisi Agro" 405320040 100% share: Eliso Katievskaja	No	Arable land, annual crops
58		5415	Agricultural	Private	No	Arable land, annual crops
59	23	1715	Agricultural	Private	No	Arable land, perennials
60		2490	Agricultural	Private	No	Arable land, perennials
61		3219	Agricultural	Private	No	Arable land, perennials
62		6122	Agricultural	Private co-ownership 3 persons	No	Arable land, annual crops
63		1715	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops
64		5181	Agricultural	Private	No	Arable land, annual crops
65	24	6062	Agricultural	Private	No	Arable land, annual crops
66		2535	Agricultural	Private	No	Arable land, annual crops
67		3893	Agricultural	Private	No	Arable land, annual crops
68		4645	Agricultural	Private	No	Arable land, annual crops
69		1788	Agricultural	Private co-ownership 4 persons	No	Arable land, perennials
70		1401	Agricultural	Private	No	Arable land, perennials
71	25	146321	Agricultural	State	No	State
72	26	4450	Agricultural	Private	No	Arable land, annual crops
73		2889	Agricultural	Private co-ownership 3 persons	No	Arable land, annual crops
74		11945	Agricultural	Private	No	Arable land, annual crops
75		4000	Agricultural	Private co-ownership 2 persons	No	Arable land, annual crops
76	27	247706	Agricultural	Private	No	Arable land, annual crops

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
77		257029	Agricultural	Private	No	Arable land, annual crops
78	28	11341	Agricultural	Private	No	Arable land, annual crops
79		17049	Agricultural	Private	No	Arable land, annual crops
80		7740	Agricultural	Private	No	
81		7863	Agricultural	Private	No	Arable land, annual crops
82		4851	Agricultural	Private	No	Arable land, annual crops
83		29	4405	Agricultural	Private co-ownership 3 persons	No
84	6279		Agricultural	<b>JSC Wind Power</b>	No	
85	3871		Agricultural	Private	No	Arable land, annual crops
86	5478		Agricultural	Private	No	
87	6200		Agricultural	<b>JSC Wind Power</b>	No	
88	30	117107	Agricultural	Private	No	Arable land, annual crops
89		114745	Agricultural	Private	No	Arable land, annual crops
90	31	180009	Agricultural	Private Ltd "Agroinvest" 406152826 Dir. Shota Beridze, 01011070564	No	Arable land, annual crops
91	32	7800	Agricultural	Private co-ownership 4 persons	No	Arable land; Partially annual crops, partially perennials;
92		11299	Agricultural	Private co-ownership 4 persons	No	Arable land, annual crops
93		3884	Agricultural	State	No	
94		1987	Agricultural	Private co-ownership 4 persons	No	Arable land, perennials
95		4559	Agricultural	Private	No	Arable land, annual crops
96	33	8087	Agricultural	Private	No	
97		22117	Agricultural	Private	No	
98		4575	Agricultural	Private co-ownership 5 persons	No	Arable land, annual crops



N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
99			Agricultural	Private	No	
100		4427	Agricultural	Private	No	Arable land, perennials
101		9056	Agricultural	Private co-ownership 5 persons	No	Arable land; Partially annual crops, partially perennials;
102		6208	Agricultural	Private	No	Residential land; Perennials;
103		3373	Agricultural	Private co-ownership 3 persons	No	Arable land, annual crops
104		6354	Agricultural	Private	No	Arable land, annual crops
105	34	4549	Agricultural	Private co-ownership 2 persons	No	Arable land, annual crops
106		8432	Agricultural	Private co-ownership 2 persons	No	Arable land, annual crops
107			Agricultural		No	
108	35	11254	Agricultural	Private	No	Annual crops. Year 2012 project
109		4421	Agricultural	Private	No	Annual crops.
110		7300	Agricultural	Private	No	Annual crops.
111		13074	Agricultural	Private	No	Annual crops.
112		3095	Agricultural	Private co-ownership 4 persons	No	Annual crops.
113		1806	Agricultural	Private co-ownership 4 persons	No	Annual crops.
114		1949	Agricultural	Private co-ownership 4 persons	No	Annual crops.
115			1509	Agricultural	Private	No
116	36	3095	Agricultural	Under Registration	No	Perennial crops
117		10012	Agricultural	Private	No	Perennial crops
118		23854	Agricultural	State	No	
119		3631	Agricultural	Under Registration	No	Annual crops.
120		4490	Agricultural	Private co-ownership 5 persons	No	Annual crops.
121		3727	Agricultural	Private co-ownership 2 persons	No	Annual crops.
		37				

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
122	38	11741	Agricultural	Under Registration	No	Annual crops.
123		7111	Agricultural	Private	No	Annual crops.
124		7547	Agricultural	Private	No	Perennial crops
125		10466	Agricultural	Private co-ownership 3 persons	No	Perennial crops
126	39	1914	Agricultural	Private	No	Annual crops.
127		985	Agricultural	Private	No	Annual crops.
128		3025	Agricultural	Private	No	Annual crops.
129		1771	Agricultural	Private	No	Annual crops.
130			Agricultural	Private	No	Annual crops.
131		3358	Agricultural	Private	No	Annual crops.
132		9422	Agricultural	Private	No	Annual crops.
133	2025	Agricultural	Private	No	Annual crops.	
134	40	248835	Agricultural	State	No	Annual crops.
135	41	8300	Agricultural	Private co-ownership 3 persons	No	Annual crops.
136		6805	Agricultural	Private co-ownership 4 persons	No	Annual crops.
137		10028	Agricultural	Private	No	Annual crops.
138		13497	Agricultural	Under Registration	No	Annual crops.
139		5012	Agricultural	Under Registration	No	Annual crops.
140		5833	Agricultural	Private co-ownership 2 persons	No	Annual crops.
141		7723	Agricultural	Under Registration	No	Annual crops.
142	42	5423	Agricultural	Private	No	Perennial crops
143		8881	Agricultural	Private	No	Perennial crops
144		9000	Agricultural	Private co-ownership 3 persons	No	Arable land; Partially annual crops, partially perennials;
145		8901	Agricultural	Private	No	Perennial crops
146		7769	Agricultural	Private co-ownership 2 persons	No	Annual crops.
147		6160	Agricultural	Private co-ownership 3 persons	No	Annual crops.
148		6354	Agricultural	Private co-ownership 3 persons	No	Annual crops.
149	12485	Agricultural	Private	No	Annual crops.	

N	Turbine N or road between Turbines	Total Area (m <sup>2</sup> )	Status	Plot owner	Is there a building on the plot	Land Use
150	43	5678	Agricultural	Private co-ownership 5 persons	No	Annual crops.
151		5537	Agricultural	Private co-ownership 2 persons	No	Annual crops.
152	44	9023	Agricultural	Private co-ownership 2 persons	No	Perennial crops
153		4319	Agricultural	Private	No	Annual crops.
154		2594	Agricultural	Under Registration	No	Annual crops.
155	45	4282	Agricultural	Private	No	Arable land; Partially annual crops, partially perennials;.
156		1080	Agricultural	Private co-ownership 4 persons	No	Perennial crops
157		1139	Agricultural	Private	No	Perennial crops
158		1270	Agricultural	Private	No	Perennial crops
159		2932	Agricultural	Private	No	Perennial crops
160		2777	Agricultural	Private	No	Perennial crops
161		3717	Agricultural	Private	No	Perennial crops
162	46	248835	Agricultural	State	No	Annual crops.

## Annex 2 Valuation Report

## Evaluation Report

**On Determining the Market (Replacement) Value of the Land Plots, Annual Crops, Perennial Plants and Other Assets on these Land Plots Affected by the Project within the Villages of Kareli Municipality (Ruisi, Urbnisi, Sasireti, Arashenda, Akhaldaba and Others)**

**Client:** "Wind Power" LLC (Identification Number 402013904);

**Evaluation date:** September 16, 2022;

**Tbilisi**

**2022**

To the Director of "Wind Power" LLC,

Lasha Iordanishvili

Dear Mr. Lasha Iordanishvili,

The real / movable property appraiser, Mindia Tabaghua, has carried out the works for determination of the market (replacement) value of the land plots, annual crops, perennial plants and other assets on these land plots affected by the project within the villages of Kareli municipality (Ruisi, Urbnisi, Sasireti, Arashenda, Akhaldaba and others).

The physical and legal data of the object of appraisal are given in the relevant sections and annexes of this report. As a result of the conducted audit procedures, the value of the appraised assets was determined as follows:

➤ **Appraised value of 1 sq. m of land plots:**

**2.0 (two) GEL;**

➤ **Compensation cost of annual crops:**

Types of agricultural crops	Unit	Yield per hectare	Market price of unit crop, GEL	Compensation for agricultural crop harvested per hectare, GEL	Compensation for agricultural crop harvested per square meter, GEL
Potato	tons	25	600	15000	1.50
Cabbage	tons	40	400	16000	1.60
Carrot	tons	30	50	15000	1.50
Garlic	tons	10	2	20000	2.0
Bean	kg	1000	5	5000	0.50
Corn	kg	6000	1	6000	0.60
Beetroot	tons	20	550	11000	1.10
Eggplant	tons	40	350	14000	1.40
Celery	tons	30	400	12000	1.20
Parsley	tons	20	600	12000	1.20
Coriander	tons	10	1300	13000	1.30

Types of agricultural crops	Unit	Yield per hectare	Market price of unit crop, GEL	Compensation for agricultural crop harvested per hectare, GEL	Compensation for agricultural crop harvested per square meter, GEL
Onion	tons	30	600	18000	1.80
Pepper	tons	25	1200	30000	3.0
Wheat	kg	4000	1.0	4000	0.40
Oats	kg	2500	1.40	3500	0.35
Bur clover	baler	350	12.0	4200	0.42
Barley	kg	3000	1.20	3600	0.36
Hay	baler	300	10.0	3000	0.30
Other vegetables / mixed	-	-	-	7000	0.70

➤ **Compensation cost of perennial plants:**

Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses, per seedling	Amount of compensation, taking into account the expenses to be paid, per seedling
1	2	3	4	5	6	7	8	9
Sour cherry (Sweet cherry)	Seedling (<5)	5	2	5	4	8,0	45	35
	5-10	5	2	5	10	20,0	105	75
	10-20	5	2	5	20	40,0	205	150
	20+	5	2	5	15	30,0	155	115
Peach / Nectarine	Seedling (<5)	6	1,5	5	4	6,0	36	25
	5-10	6	1,5	5	15	22,5	118.5	85
	10-20	6	1,5	5	40	60,0	306	215
	20+	6	1,5	5	25	37,5	193.5	135
Walnut	Seedling (<5)	10	5	5	4	20,0	110	80
	5-10	10	5	10	15	75,0	760	535
	10-20	10	5	10	30	150	1560	1235
	20+	10	5	10	40	200	2010	1510

Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses, per seedling	Amount of compensation, taking into account the expenses to be paid, per seedling
Quince	Seedling (<5)	4	1,5	5	3	4,5	26,5	20
	5-10	4	1,5	5	15	22,5	116,5	80
	10-20	4	1,5	5	30	45	229	160
	20+	4	1,5	5	20	30	154	110
Pear	Seedling (<5)	4	1,2	5	7	8,4	46	25
	5-10	4	1,2	7	20	24,0	172	120
	10-20	4	1,2	7	70	84,0	592	415
	20+	4	1,2	7	45	54,0	382	270
Plum / Damson Plum	Seedling (<5)	4	0,8	5	8	6,4	36	25
	5-10	4	0,8	5	15	12,0	64	45
	10-20	4	0,8	5	30	24,0	124	90
	20+	4	0,8	5	20	16,0	84	60
Mulberry	Seedling (<5)	5	1,5	5	4	6,0	35	25
	5-10	5	1,5	5	8	12,0	65	50
	10-20	5	1,5	5	16	24,0	125	90
	20+	5	1,5	5	12	18,0	95	70
Nut	Seedling (<5)	2	4	5	2	8,0	44	30
	5-10	2	4	5	4	16,0	82	55
	10-20	2	4	5	6	24,0	122	90
	20+	2	4	5	5	20,0	102	75
Cherry Plum	Seedling (<5)	5	2	5	5	10	55	40
	5-10	5	2	6	15	30	185	130
	10-20	5	2	6	30	60	365	255
	20+	5	2	6	25	50	305	200
Persimmon	Seedling (<5)	2	1	5	5	5,0	27	20
	5-10	2	1	6	10	10,0	62	44
	10-20	2	1	6	30	30,0	182	128
	20+	2	1	6	20	20,0	122	86
Apple	Seedling (<5)	4	1	5	5	5,0	29	20
	5-10	4	1	6	25	25,0	154	110
	10-20	4	1	6	70	70,0	424	295
	20+	4	1	6	40	40,0	244	170



Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses, per seedling	Amount of compensation, taking into account the expenses to be paid, per seedling
Jujube	Seedling (<5)	5	2,5	5	3	7,50	37,50	30
	5-10	5	2,5	7	10	25,0	175,0	140
	10-20	5	2,5	7	35	92,50	647,50	550
	20+	5	2,5	7	30	75,0	525,0	445
Fig	Seedling (<5)	3	1,5	5	5	7,5	40,5	25
	5-10	3	1,5	6	10	15,0	93	65
	10-20	3	1,5	6	30	45,0	273	190
	20+	3	1,5	6	20	30,0	183	130
Apricot	Seedling (<5)	4		4	4	8	36	25
	5-10	4	2	5	15	30	154	105
	10-20	4	2	5	25	50	254	180
	20+	4	2	5	20	40	204	140
Medlar	Seedling (<5)	4	1,5	5	3	4,5	26,5	20
	5-10	4	1,5	6	10	15,0	94	70
	10-20	4	1,5	6	20	30,0	184	130
	20+	4	1,5	6	15	22,5	135	100
Loquat	Seedling (<5)	5	2	6	3	6,0	40	30
	5-10	5	2	6	10	20,0	125	90
	10-20	5	2	6	20	40,0	245	170
	20+	5	2	6	15	30,0	185	140
Chestnut	Seedling (<5)	7	2,5	5	10	25	132	110
	5-10	7	2,5	10	20	50	507	350
	10-20	7	2,5	10	50	125	1257	1050
	20+	7	2,5	10	55	137,5	1382	1150
Pomegranate	Seedling (<5)	4	2	5	5	10,0	54	35
	5-10	4	2	6	10	20,0	124	85
	10-20	4	2	6	30	60,0	364	250
	20+	4	2	6	20	40,0	244	170
Cornel	Seedling (<5)	3	2	5	2	4,0	23	17
	5-10	3	2	5	4	8,0	43	30
	10-20	3	2	5	6	12,0	63	45
	20+	3	2	5	5	10,0	53	40

➤ **Compensation cost of other affected assets**

**Drip irrigation system (pump, simple filtration system, main pipe, auxiliary connecting materials, drip pipe, installation) - 0.25 (0 and 25/100) GEL per sq. m.**

Appraisal was conducted in accordance with the international valuation standards (IVSC 2022).

The appraiser certifies the following:

- Results presented in this report are based on the appraiser's best knowledge;
- The appraiser's remuneration does not depend on any aspect of the conclusion;
- The appraiser's education corresponds to the necessary requirements;
- The appraiser has relevant experience and knows the location of the appraised property well;
- The appraiser personally inspected the appraised property.

**Property Appraiser Mindia Tabaghua**

### Appraisal Certificates

**Appraisal was conducted by auditor Mindia Tabaghua, who holds:**

- ISO/IEC 17024:2012/2014 Certificate of Conformity of the LEPL Unified National Body of Accreditation of Georgia – Accreditation Center the Ministry of Economy and Sustainable Development of Georgia (accreditation number: GAC-PC-0010) – Appraiser of tangible movable property issued by the Appraisers and Experts Professional Development Center (Certificate №A-0454);
- ISO/IEC 17024:2012/2014 Certificate of Conformity of the LEPL Unified National Body of Accreditation of Georgia – Accreditation Center the Ministry of Economy and Sustainable Development of Georgia (accreditation number: GAC-PC-0010) – Appraiser of real estate issued by the Appraisers and Experts Professional Development Center (Certificate №A-0908);
- An auditor registered by the Service for Accounting, Reporting and Auditing Supervision (Registration №SARAS-A-631520);
- A member of the Institute of Property Appraisers of Georgia;
- A member of the Association of Independent Appraisers of Georgia.

I, the undersigned, certify that:

- The analysis presented in this Report is based on certain assumptions, limiting conditions and reflects my personal, unbiased professional opinion as an appraiser, and the conclusions I make are based on this analysis;
- All the data reflected in this Report are accurate and correspond to reality;
- The appraiser neither currently nor in the future has any interest in the real estate, the market value of which is presented in the appraisal report.
- The appraiser has sufficient knowledge, qualification and experience to accurately determine the market value of the subject property;
- The valuation process - information acquisition, analysis and determination of market value was carried out in accordance with international valuation standards (IVS-2022).

**Appraiser: Mindia Tabaghua**

## Limitations and Assumptions

The evaluation process was accompanied by the following limiting conditions and taking into account these conditions the following assumptions were made / accepted by the appraiser. The following assumptions and limitations are the integral / important part of the conclusion and should be considered together:

1. The appraiser assumes the absence of any hidden factors (except those mentioned in the conclusion) that may affect the market value of the appraised property and does not take responsibility for the existence of such factors. The valuation methods are determined under the Agreement and the value is calculated in the appropriate order established by the international valuation standard.
2. The appraiser was not required to and did not perform a geological survey of the land plot constituting the appraised property, therefore for the purposes of this appraisal it is assumed that the geological condition of the land plot meets the seismic and other requirements.
3. Evaluative activity cannot be considered an exact science, all conclusions are subjective and depend on individual approach. Even with the same database and using the same assumptions, experts' opinions may differ from each other as a result of making separate decisions. Therefore, it is impossible to have a standard formula for an irrefutable valuation. Accordingly, the given conclusion includes the professional opinion of the appraiser in relation to the value index determined by him and cannot be considered as a guarantee that the appraised property will be disposed of according to the exact appraised value.
4. The final value indicator represents the result of the analysis of the information obtained and does not represent a guarantee that there may not be other offers or transactions in the market that differ in monetary indicators.
5. Without conducting relevant study, it is assumed that there are no useful mineral resources under the land plot to be appraised.

## 1. Valuation Method

One of the basic approaches defined by the international valuation standard (IVS-2022) - the **Market Approach** - was used to determine the amount of compensation for the damage caused to landowners:

Approach Using the **market approach**, an appraiser develops a value indication by comparing the subject property with similar properties, called comparable properties.

Procedure

- "When using the market-based approach, the appraiser performs a systematic procedure. The appraiser:
- Investigates the market ...
- Determines the accuracy of information ...
- Selects adequate comparable properties ...
- Compares similar properties for sale to the subject property, using comparison elements ...
- Reconciles the results to reduce them to a value indicator .... "

/ International Valuation Guidance 1. GN 1. Real Property Valuation/

Comparison elements Comparison elements define specific features of immovable property and transactions that explain price variations. Market analysis reveals which elements are particularly sensitive.

*The following elements of comparison are mainly considered in the analysis of comparable sales data:*

- *Transfer of ownership rights over the immovable property ...*
- *Financing Terms ....*
- *Terms of sale ....*
- *Expenses incurred immediately after purchase ...*
- *Market conditions ...*
- *Location ....*
- *Physical features ...*
- *Economic features ...*
- *Use ...*
- *Selling non-real components ..."*

In the market approach, the value of the subject property is estimated by its direct comparison to the prices of similar properties recently sold or announced for sale.

In accordance with the above-mentioned standard, by using the market approach, the following actions were taken to determine the market value of the subject property: Market data on similar real estate properties to be valued were collected and analyzed. A detailed market research was conducted; Reliable information about the factors that affect the value of the subject property was obtained. The obtained information was checked to ensure its accuracy and the essence of the motivation behind each transaction; A suitable object of comparison was determined and a comparative analysis was conducted; The subject property was compared with similar comparable property in order to adjust their selling price or remove them from the list of comparable properties; The adjusted values of the properties subject to comparison were reduced to a single value, or to a range of market value. The market value of the subject property was determined.

## 2. Calculation of the Market Value of Land Plots by Sales Comparison Approach

As already mentioned, the market or sales comparison approach was used to determine the value of the affected land plots, which involves the comparison of the subject property with other similar properties, the market values of which are known (the land plot has been bought and sold, i.e. it was sold in the recent past or was announced for sale).

The land plots to be valued are located in Shida Kartli, Kareli municipality, within the administrative borders of Ruisi, Breti, Bebnisi, Sasireti, Arashenda, Akhaldaba and other nearby villages. According to the Extract from the Public Register, as well as on-site inspection, it was determined that these are the agricultural land plots located away from populated areas. The land plots are used for growing annual and perennial plants. Irrigation canals are located near the plots. The plots are irrigated using appropriate systems that ensures a high yield of the plots.

The conducted inspection found that the land plots to be valued are essentially similar. Although they cover a large area, they are located on a homogeneous landscape and do not differ in terms of climate, relief, structure, fertility, future prospects and other important features. Accordingly, based on the principles of usefulness and expectation of international valuation standards, they have the same value.





To evaluate the land plots, it is necessary to analyze the market segment - the values recorded in the agreements signed on similar properties and in the announcements for sale. All these activities were carried out within the borders of the above-mentioned territory and the surrounding villages.

In order to determine the market value of land plots, during the evaluation process, we obtained data on analogues based on market offers and transaction data provided by the National Agency of Public Registry (the source of information is indicated in the Table below), which is given in Table №1.

Table №1

Area (m <sup>2</sup> )	Type of land plot	Address, location of property	Unit price, m <sup>2</sup> /GEL	Source of information
2374.0	Agricultural	Kareli, village Breți Cadastral number: 68.11.44.000.099/ 68.11.44.000.100	2.4 GEL	<a href="http://www.myhome.ge">www.myhome.ge</a> ID: 8273597 07.09.2022
12500	Agricultural	Kareli, village Bebnisi Cadastral number: 68.11.53.097	1.60 GEL	<a href="http://www.myhome.ge">www.myhome.ge</a> ID: 13396837 04.09.2022
8.0 ha	Agricultural	Kareli, village Ptsa	1.50 GEL	<a href="http://www.myhome.ge">www.myhome.ge</a> ID: 13197124 29.08.2022
38400	Agricultural	Kareli, village Ptsa Cadastral number: 68.04.45.029	2.80 GEL	<a href="http://www.myhome.ge">www.myhome.ge</a> ID: 13108691 16.09.2022

Layout of land plots to be valued and comparison analogues



Table №2 Adjustment of land plots within the impact zone (in GEL, unit 1.00 sq. m.)

N	Comparison elements	Analogue N1	Analogue N2	Analogue N3	Analogue N4
	Area, m <sup>2</sup>	2374	12500	80000	38400
	Price per sq. m., in GEL	2.40	1.50	1.5	2.8
1	<b>Transfer of ownership rights over immovable property</b>	Full	Full	Full	Full
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.4	1.6	1.5	2.8
2	<b>Financing Terms</b>	Typical	Typical	Typical	Typical
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.4	1.6	1.5	2.8
3	<b>Terms of sale</b>	Offer	Offer	Offer	Offer
	<i>Adjustment</i>	-5%	-5%	-5%	-5%
	<i>Adjusted price</i>	2.28	1.52	1.43	2.66
4	<b>Expenses incurred immediately after purchase</b>	No	No	No	No
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.43	2.66

N	Comparison elements	Analogue N1	Analogue N2	Analogue N3	Analogue N4
5	<b>Market conditions (time)</b>	September, 2022	September, 2022	August, 2022	September, 2022
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.43	2.66
6.1	<b>Location</b>	Similar	Similar	Similar	Similar
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.43	2.66
6.2	<b>Access road</b>	Similar	Similar	Similar	Similar
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.43	2.66
7	<b>Physical features</b>				
7.1	Area of the land plot	Medium	Medium	Large	Large
	<i>Adjustment</i>	0%	0%	10%	10%
	<i>Adjusted price</i>	2.28	1.52	1.57	2.93
7.3	Lines of communication	Similar	Similar	Similar	Similar
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.57	2.93
7.4	Restrictions (easement and others)	No	No	No	No
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.57	2.93
8	<b>Economic features</b>	Similar	Similar	Similar	Similar
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.57	2.93
10	<b>Non-real estate components</b>	No	No	No	No
	<i>Adjustment</i>	0%	0%	0%	0%
	<i>Adjusted price</i>	2.28	1.52	1.57	2.93



### 3. Calculation of the compensation cost of the land plot

After reviewing the analogs and studying the adjusted pricing data, the unit value of the land plots was determined by calculating the volume-weighted average price. When selecting the results of the adjusted prices, a greater share was given to those analogs that were most comparable to the subject property with the least adjustments.

The market unit value of the land plot (using the volume-weighted average price) is calculated using the following formula:

$$Vwa = \sum_{i=1}^n Pi^* \left\{ Ri / \sum_{i=1}^n R \right\}$$

**Vwa** - volume-weighted average price;

**Pi** – Adjusted price for each analogue;

**Σ R** – Sum of rated weights of adjusted comparable analogues;

**Ri** – Rated weight of adjusted price of each comparable object.

Based on the above, the calculation of the market value of the land plot using the volume-weighted average value is given in Table №3.

Name	Pi	Ri	Vi
Adjusted Analogue Price #1	2.28	1.5	0.68
Adjusted Analogue Price #2	1.52	1.5	0.46
Adjusted Analogue Price #4	1.57	1	0.31
Adjusted Analogue Price #5	2.93	1	0.59
<b>Σ R</b>		<b>5.0</b>	
<b>Vwa</b>			<b>2.04</b>
<b>Adjusted market value per sq. m. of the land plot in GEL (rounded)</b>			<b>2.0</b>

Thus, the market value of 1 sq. m. land plots affected by the project in the villages of Kareli municipality (Ruisi, Urbnisi, Sasireti, Arashenda, Akhaldaba and others) is **2.0 (two) GEL**.

### 4. Calculation of Compensation Costs for Annual Crops

To calculate the compensation cost of the agricultural crops on the land plots affected by the project, a method of determining the lost income was used, which is calculated using the yield data of a specific agricultural crop and its market value in relation to one year's harvest for the area of affected agricultural land plot.

Compensation cost of annual crops was determined on the basis of comparison of data of specialists, owners survey and inspection results, which is based on data on crop yield and market value.

The evaluation of the yield, conducted on the basis of the Monograph “Georgian Fruit Growing” by Dr. Gogotour Agladze, the Doctor of the Agricultural Sciences, full member of the Academy of Agricultural Sciences of Georgian and the Russian federation, Laureate of the State Prize of Georgia, Book III (1973) and book IV (1978), as well as the researches presented on Internet sites ([www.gra.org.ge](http://www.gra.org.ge) [www.agrokavkaz.ge](http://www.agrokavkaz.ge) [www.agropedia.ge](http://www.agropedia.ge) and others) and by comparing the results of specialist surveys, is given in Table №4.

Annual yields of annual crops, market values and compensation costs are given in Table №4.

**Table №4**

Types of agricultural crops	Unit	Yield per hectare	Market price of unit crop, GEL	Compensation for agricultural crop harvested per hectare, GEL	Compensation for agricultural crop harvested per square meter, GEL
Potato	tons	25	600	15000	1.50
Cabbage	tons	40	400	16000	1.60
Carrot	tons	30	50	15000	1.50
Garlic	tons	10	2	20000	2.0
Bean	kg	1000	5	5000	0.50
Corn	kg	6000	1	6000	0.60
Beetroot	tons	20	550	11000	1.10
Eggplant	tons	40	350	14000	1.40
Celery	tons	30	400	12000	1.20
Parsley	tons	20	600	12000	1.20
Coriander	tons	10	1300	13000	1.30
Onion	tons	30	600	18000	1.80
Pepper	tons	25	1200	30000	3.0
Wheat	kg	4000	1.0	4000	0.40
Oats	kg	2500	1.40	3500	0.35

Types of agricultural crops	Unit	Yield per hectare	Market price of unit crop, GEL	Compensation for agricultural crop harvested per hectare, GEL	Compensation for agricultural crop harvested per square meter, GEL
Bur clover	baler	350	12.0	4200	0.42
Barley	kg	3000	1.20	3600	0.36
Hay	baler	300	10.0	3000	0.30
Other vegetables / mixed	-	-	-	7000	0.70

### 5. Method for Calculating Compensation Costs for Perennial Plants

To calculate the compensation cost of perennial plants (fruit trees), a method of determining the lost income in the period of time required for the growth of a similar plant to the corresponding age was used. The value of perennial plants is determined by their age. The value of fruit trees is calculated by multiplying the market price of the annual crop by the number of years it will take to grow the new perennials to the age of the existing trees.

Fruit trees were evaluated using the following formula:

$$\{ (B \times D) \times C \} + A - F$$

Where:

- A - Price of seedling
- B - Value of a unit harvest
- C - Number of years to be compensated
- D - Full yield per year
- F - Annual cost of harvesting

Based on the above formula, the compensation cost for perennial plants was calculated with consideration of the principle of lost income (the sum of the costs of the total yield of the tree in the period of time required for the growth of a similar tree to the corresponding age of the existing tree). As for determining the compensation cost of timber trees, it was calculated according to the age of the tree, developed stem and branch, volume of timber material, as well as according to its type as a demanded product for construction or other purpose.

The final compensation costs of perennial plants by species are given in Table №5.

Table №5 - Compensation values of perennial plants

Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses	Amount of compensation, taking into account the expenses to be paid
1	2	3	4	5	6	7	8	9
Sour cherry (Sweet cherry)	Seedling (<5)	5	2	5	4	8,0	45	35
	5-10	5	2	5	10	20,0	105	75
	10-20	5	2	5	20	40,0	205	150
	20+	5	2	5	15	30,0	155	115
Peach / Nectarine	Seedling (<5)	6	1,5	5	4	6,0	36	25
	5-10	6	1,5	5	15	22,5	118.5	85
	10-20	6	1,5	5	40	60,0	306	215
	20+	6	1,5	5	25	37,5	193.5	135
Walnut	Seedling (<5)	10	5	5	4	20,0	110	80
	5-10	10	5	10	15	75,0	760	535
	10-20	10	5	10	30	150	1560	1235
	20+	10	5	10	40	200	2010	1510
Quince	Seedling (<5)	4	1,5	5	3	4,5	26,5	20
	5-10	4	1,5	5	15	22,5	116,5	80
	10-20	4	1,5	5	30	45	229	160
	20+	4	1,5	5	20	30	154	110
Pear	Seedling (<5)	4	1,2	5	7	8,4	46	25
	5-10	4	1,2	7	20	24,0	172	120
	10-20	4	1,2	7	70	84,0	592	415
	20+	4	1,2	7	45	54,0	382	270
Plum / Damson Plum	Seedling (<5)	4	0,8	5	8	6,4	36	25
	5-10	4	0,8	5	15	12,0	64	45
	10-20	4	0,8	5	30	24,0	124	90
	20+	4	0,8	5	20	16,0	84	60
Mulberry	Seedling (<5)	5	1,5	5	4	6,0	35	25
	5-10	5	1,5	5	8	12,0	65	50
	10-20	5	1,5	5	16	24,0	125	90
	20+	5	1,5	5	12	18,0	95	70

Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses	Amount of compensation, taking into account the expenses to be paid
Nut	Seedling (<5)	2	4	5	2	8,0	44	30
	5-10	2	4	5	4	16,0	82	55
	10-20	2	4	5	6	24,0	122	90
	20+	2	4	5	5	20,0	102	75
Cherry Plum	Seedling (<5)	5	2	5	5	10	55	40
	5-10	5	2	6	15	30	185	130
	10-20	5	2	6	30	60	365	255
	20+	5	2	6	25	50	305	200
Persimmon	Seedling (<5)	2	1	5	5	5,0	27	20
	5-10	2	1	6	10	10,0	62	44
	10-20	2	1	6	30	30,0	182	128
	20+	2	1	6	20	20,0	122	86
Apple	Seedling (<5)	4	1	5	5	5,0	29	20
	5-10	4	1	6	25	25,0	154	110
	10-20	4	1	6	70	70,0	424	295
	20+	4	1	6	40	40,0	244	170
Jujube	Seedling (<5)	5	2,5	5	3	7,50	37,50	30
	5-10	5	2,5	7	10	25,0	175,0	140
	10-20	5	2,5	7	35	92,50	647,50	550
	20+	5	2,5	7	30	75,0	525,0	445
Fig	Seedling (<5)	3	1,5	5	5	7,5	40,5	25
	5-10	3	1,5	6	10	15,0	93	65
	10-20	3	1,5	6	30	45,0	273	190
	20+	3	1,5	6	20	30,0	183	130
Apricot	Seedling (<5)	4		4	4	8	36	25
	5-10	4	2	5	15	30	154	105
	10-20	4	2	5	25	50	254	180
	20+	4	2	5	20	40	204	140
Medlar	Seedling (<5)	4	1,5	5	3	4,5	26,5	20
	5-10	4	1,5	6	10	15,0	94	70
	10-20	4	1,5	6	20	30,0	184	130
	20+	4	1,5	6	15	22,5	135	100

Types of plants	Age group	Seedling price, GEL	Unit harvest value, GEL	Number of years to be compensated	Full yield per year, kilogram	Compensation for one year's harvest (GEL)	Full value without taking into account expenses	Amount of compensation, taking into account the expenses to be paid
Loquat	Seedling (<5)	5	2	6	3	6,0	40	30
	5-10	5	2	6	10	20,0	125	90
	10-20	5	2	6	20	40,0	245	170
	20+	5	2	6	15	30,0	185	140
Chestnut	Seedling (<5)	7	2,5	5	10	25	132	110
	5-10	7	2,5	10	20	50	507	350
	10-20	7	2,5	10	50	125	1257	1050
	20+	7	2,5	10	55	137,5	1382	1150
Pomegranate	Seedling (<5)	4	2	5	5	10,0	54	35
	5-10	4	2	6	10	20,0	124	85
	10-20	4	2	6	30	60,0	364	250
	20+	4	2	6	20	40,0	244	170
Cornel	Seedling (<5)	3	2	5	2	4,0	23	17
	5-10	3	2	5	4	8,0	43	30
	10-20	3	2	5	6	12,0	63	45
	20+	3	2	5	5	10,0	53	40

## 6. Valuation of other Affected Assets

A drip irrigation system is installed on the land plots where the agricultural crops require systematic irrigation. The water flow is obtained from the irrigation channel where the filters and the pump are installed, and the drip pipes are laid.

We have calculated the costs for setting up the above-mentioned irrigation system for 1 ha land, which includes a pump, a simple filtration system, a main pipe, auxiliary connection materials, a drip pipe and their installation works. As a result, we got the average cost of a similar system per sq. m., which amounted to 0.25 (0 and 25/100) GEL. Accordingly, by multiplying the area of the land plot by 0.25 GEL, we will get the amount of cost for the arrangement of the irrigation system.

Drip irrigation system - 0.25 (0 and 25/100) GEL/ M<sup>2</sup>.

**Appraiser/Auditor:**

**Mindia Tabaghua**

## **Annex 3    Review of Ongoing Land Acquisition Process**

## 1. The Land Acquisition Process – Private Land Plots

### 1.1 General Approach

The Land Acquisition team closely cooperates with the local government and population in the identification of all potential owners/users for each land plot required for the process. The inventory of the required land plots takes place only upon amicable agreement with owners/users of private lands. Landowners/users or their representatives and land acquisition team members are always present during the inventory process. All possible landowners/users are presented with land inventory results, the total price for their property required for the project, and land purchase agreement drafts for consideration.

The total price for the private property required for the project includes the market price of the property plus an additional 5%-10% of the total price in case of some kind of vulnerability. This vulnerability may include members of the household with disabilities or severe chronic diseases, lonely pensioners, women-headed households with minors, or households below the official poverty line. It also accounts for severe impacts, such as losing 50% or more of their land. Only after reaching an amicable agreement with each landowner/user, further procedures of the land acquisition process take place. All administrative costs of land purchase or land registration are covered by the Project.

As usual, only part of the private land plot acquired is permanently affected due to installation of the project facilities. The rest part could be used for agricultural needs and the affected households are proposed to use the land for free (for only symbolic price). Accordingly, the Land purchase agreements presented to the project-affected landowners/users include a paragraph suggesting providing access to those parts of their land plots that would be only temporarily affected by the Project during the construction phase. The land purchase agreement suggests that the parts of the land not used by the project will be assigned to the former owner in paid use for a term of 99 years. The lease fee for one square meter of the unused part is 0.05 Tetri per month. The lease fee suggested in the agreement is a symbolic price and would be included in additional compensation for vulnerable households or households with severe impact (*land purchase agreement clause 3.1: "After the Buyer decides which part of the real estate they need for their objective – to place wind turbines, on the part that the Buyer will not use for their objective (hereinafter "unused part"), the parties will sign a Lease Agreement and the Buyer shall assign the Seller to unused part in paid use for the term of 99 years. The lease fee for 1 square meter of the unused part is 0.05 Tetri per month. The estimated date of the assignment is till December 31 of 2023. In addition, the Parties agree that the Seller shall have the right to use unused parts only for agricultural purposes and the Seller shall have no right to place any building/facility (even temporary)"*).

Socio-economic questionnaires are completed with all affected households prior to land purchase to identify vulnerability and the scope of impact. The impact scope for each affected household would be identified only after defining the permanent effect of the project for each acquired land plot from private owners.

### 1.2 The Land Acquisition Process Results

The Land acquisition process started in October 2022, and the land team initiated the land inventory and negotiation process with project-affected landowners and users. The preliminary target was to purchase affected land plots from private owners/users for 38 turbines<sup>17</sup> and a substation. The total scope of the affected area is estimated to be 1638014 square meters (163.80 hectares). According to preliminary estimations, the majority of landowners/users cultivate annual plants on the affected land plots, and only about six percent of the affected lands consist of gardens with perennial plants. No extra

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<sup>17</sup> The rest 8 turbines are located on state lands with no private users or owners.



usage of purchased land plots has been identified so far apart from the legal land owners. The purchased land plots were used for agricultural reasons or were abandoned. Some active farmers were allowed to use purchased land plots (notwithstanding the fact that the total price for the land has been already paid) for agricultural cultivation and harvest till August 2023.

Within the last six months, 47.44%<sup>18</sup> of the required land area has been purchased from private owners/users. So far, 695528 square meters (69.55 hectares) have been purchased from 224 landowners (land plots). The land plots required for a substation and 17 turbines (turbines: 4, 5, 7, 10, 13, 14, 16, 19, 25, 29, 34, 35, 36, 42, 44, 46) have been fully purchased, as well as parts of land plots for ten more turbines (turbines: 11, 18, 23, 28, 30, 31, 33, 38, 41, 45). The process of land acquisition is ongoing with left 183 owners (111 land plots) and preliminary agreements have been reached with 85% (156 land owners). The table below provides details of the land acquisition from private owners/users.

**Table N1 Land Plots of Private Owners/Users Required for the Project**

Project Requirements	Already Purchased		Not Purchased Yet		TOTAL Area sq. m
	Number of Land Owners	Area sq.m	Number of Land Owners	Area sq.m	
Turbine 4 <sup>19</sup>	10	16211			16211
Turbine 5	28	41252			41252
Turbine 7	1	39177			39177
Turbine 10	15	31930			31930
Turbine 11	31	57712	2	6267	63979
Turbine 12			16	101816	101816
Turbine 13	1	43508			43508
Turbine 14	4	19752			19752
Turbine 16	10	35841			35841
Turbine 18	2	12648	15	41777	54425
Turbine 19	10	27895			27895
Turbine 20			2	35405	35405
Turbine 21			16	85066	85066
Turbine 22			8	30166	30166
Turbine 23	1	10148	11	48791	58939
Turbine 24			9	53788	53788
Turbine 25	1	31065			31065
Turbine 26			10	15023	15023
Turbine 27			11	41561	41561
Turbine 28	16	32670	4	8974	41644
Turbine 29	21	29969			29969
Turbine 30	9	22824	8	32668	55492
Turbine 31	1	5207	9	53899	59106

<sup>18</sup> The tender for service providers for turbines is ongoing and preliminary expectations are to require about 29-35 turbines which will change shares. The Project may not require areas for all 46 turbines; however, some extra lands may be purchased for livelihood restoration purposes.

<sup>19</sup> Required extra area for some turbines, in particular, N4, 16, 26, 33, 34, 42, and 45 are state lands.

Project Requirements	Already Purchased		Not Purchased Yet		TOTAL Area sq. m
	Number of Land Owners	Area sq.m	Number of Land Owners	Area sq.m	
Turbine 32			3	37283	37283
Turbine 33	5	20216	2	16278	36494
Turbine 34	4	40878			40878
Turbine 35	10	23856			23856
Turbine 36	8	42135			42135
Turbine 37			4	44875	44875
Turbine 38	5	14464	20	13417	27881
Turbine 39			7	90430	90430
Turbine 40			6	33327	33327
Turbine 41	16	37470	6	33744	33744
Turbine 42	1	24127			24127
Turbine 43			5	29702	29702
Turbine 44	1	28850			28850
Turbine 45	8	12967	9	6656	11658
Turbine 46	3	45001			45001
Substation	2	29328			29328
<b>TOTAL</b>	<b>224</b>	<b>777101</b>	<b>183</b>	<b>860913</b>	<b>1638014</b>

The locations of the following 12 turbines have been changed based on negotiations with landowners/users: 12, 18, 20, 21, 23, 27, 31, 32, 37, 39, 40, and 41. The coordinates of the initial and final locations are provided in the table below:

**Table N2 \_ Locations of 12 Turbines Changed During Negotiation Process**

Turbine Number	Settlement – Name	Initial Coordinates	Final Coordinates
12	Ruisi	<u>T12 OLD.kmz</u>	<u>T12 NEW.kmz</u>
18	Sakasheti	<u>T18 OLD.kmz</u>	<u>T18 NEW.kmz</u>
20	Shindisi	<u>T20 OLD.kmz</u>	<u>T20 NEW.kmz</u>
21	Ruisi	<u>T21 OLD.kmz</u>	<u>T21 NEW.kmz</u>
23	Breti	<u>T23 OLD.kmz</u>	<u>T23 NEW.kmz</u>
27	Ruisi	<u>T27 OLD.kmz</u>	<u>T27 OLD.kmz</u>
31	Ruisi	<u>T31 OLD.kmz</u>	<u>T31 NEW.kmz</u>
32	Shindisi	<u>T32 OLD.kmz</u>	<u>T32 NEW.kmz</u>
37	Sakasheti	<u>T37 OLD.kmz</u>	<u>T37 NEW.kmz</u>
39	Dzlevijvari	<u>T39 OLD.kmz</u>	<u>T39 OLD.kmz</u>
40	Shindisi	<u>T40 OLD.kmz</u>	<u>T40 NEW.kmz</u>
41	Ruisi	<u>T41 OLD.kmz</u>	<u>T41 NEW.kmz</u>

During the land acquisition process land team members helped land users of 102 project-affected land plots to be officially registered as owners before purchasing these land plots. Registration of 68 affected land plots is still ongoing.

## 2. The Land Acquisition Process – State Land Plots

15 out of 46 turbines are located on 20 state land plots with a total area of 6546638 square meters (654.66 hectares). Only 260,913 square meters (about 4% of the registered area) are required for turbines, and the existing state plot areas will be split accordingly before purchase. The table below shows the details of the required state lands:

**Table N3 \_ State Land Plots Required for the Project**

<b>Turbine Number</b>	<b>State Land Plot Cadastral Number</b>	<b>State Land Plot Area Square Meters</b>	<b>Approximate Land Area Required for the Project Square Meters</b>
1	68.15.45.000.137	2300	2300
1	68.15.45.000.132	1716	1716
1	68.15.45.010.636	422570	10698
1	68.15.45.000.134	21888	24
2	68.15.45.000.127	278534	19070
3	68.16.45.000.090	100000	16939
3	68.15.45.000.131	13008	7113
4	68.15.45.010.636	422570	19141
6	66.43.18.000.005	232194	15170
6	66.43.18.000.491	640604	5478
8	68.15.47.022.001	375058	24053
9	68.16.45.000.131	1519984	24053
15	66.43.18.000.490	242061	40000
16	68.15.46.000.152	90961	410
17	68.15.45.010.635	54420	42144
26	68.16.45.000.097	55707	3846
33	68.15.46.004.628	307837	7298
34	66.43.01.047.001	13048	612
42	66.43.18.000.005	232194	13101
45	68.16.45.000.131	1519984	7747
<b>TOTAL</b>		<b>6546638</b>	<b>260913</b>

## Annex 4 Impacts on Pastures of Common Use

## Study of Pastures in the Project Area

### 1. Survey Methodology

The main goal of the baseline study of the pastures in the Project affected area was to identify the scale of impact of the Project on existing pasture territories and local population using these pastures. The scale of impacts first of all depends on the land take patterns: what part of the used pastures is lost for the users due to direct land take or access limitations. The degree of economic displacement depends on the contribution of lost pastures to the provision of food for livestock and its economic share in the overall structure of household income. Thus the first stage of the impact assessment envisages identification of pastures officially or informally used by population and estimation of pasture losses: what part of the used pastures is lost or has any limitations of access imposed due to the project. In case if the first stage study demonstrates that certain part of the used pastures is lost, the second stage assessment is needed to further quantify the losses and plan adequate compensations.

In order to achieve the study goal, the following methodologies were applied:

- Desk Research using available cadastral data and information from local authorities
- Qualitative Study
- Quantitative Survey

### 2. Pasture Impact Assessment

#### 2.1 Desk Research

The private land plots are not used as pastures. In order to identify existing pastures in the Project area, the written requests were sent to the local governments (Kareli and Gori Municipalities) to identify, if there are any pastures in the state lands required for the Project. In particular, the following table of affected state lands was shared with them:

**Table N1 \_ State Land Plots Required for the Project**

Turbine Number	State Land Plot Cadastral Number	State Land Plot Area Square Meters	Approximate Land Area Required for the Project Square Meters
1	68.15.45.000.137	2300	2300
1	68.15.45.000.132	1716	1716
1	68.15.45.010.636	422570	10698
1	68.15.45.000.134	21888	24
2	68.15.45.000.127	278534	19070
3	68.16.45.000.090	100000	16939
3	68.15.45.000.131	13008	7113
4	68.15.45.010.636	422570	19141
6	66.43.18.000.005	232194	15170
6	66.43.18.000.491	640604	5478
8	68.15.47.022.001	375058	24058
9	68.16.45.000.131	1519984	24058
15	66.43.18.000.490	242061	40000
16	68.15.46.000.152	90961	410

Turbine Number	State Land Plot Cadastral Number	State Land Plot Area Square Meters	Approximate Land Area Required for the Project Square Meters
17	68.15.45.010.635	54420	42144
26	68.16.45.000.097	55707	3846
33	68.15.46.004.628	307837	7298
34	66.43.01.047.001	13048	612
42	66.43.18.000.005	232194	13101
45	68.16.45.000.131	1519984	7747
<b>TOTAL</b>		<b>6546638</b>	<b>260923</b>

According to the feedback received from the local authorities, there are no official pastures in the Project area.

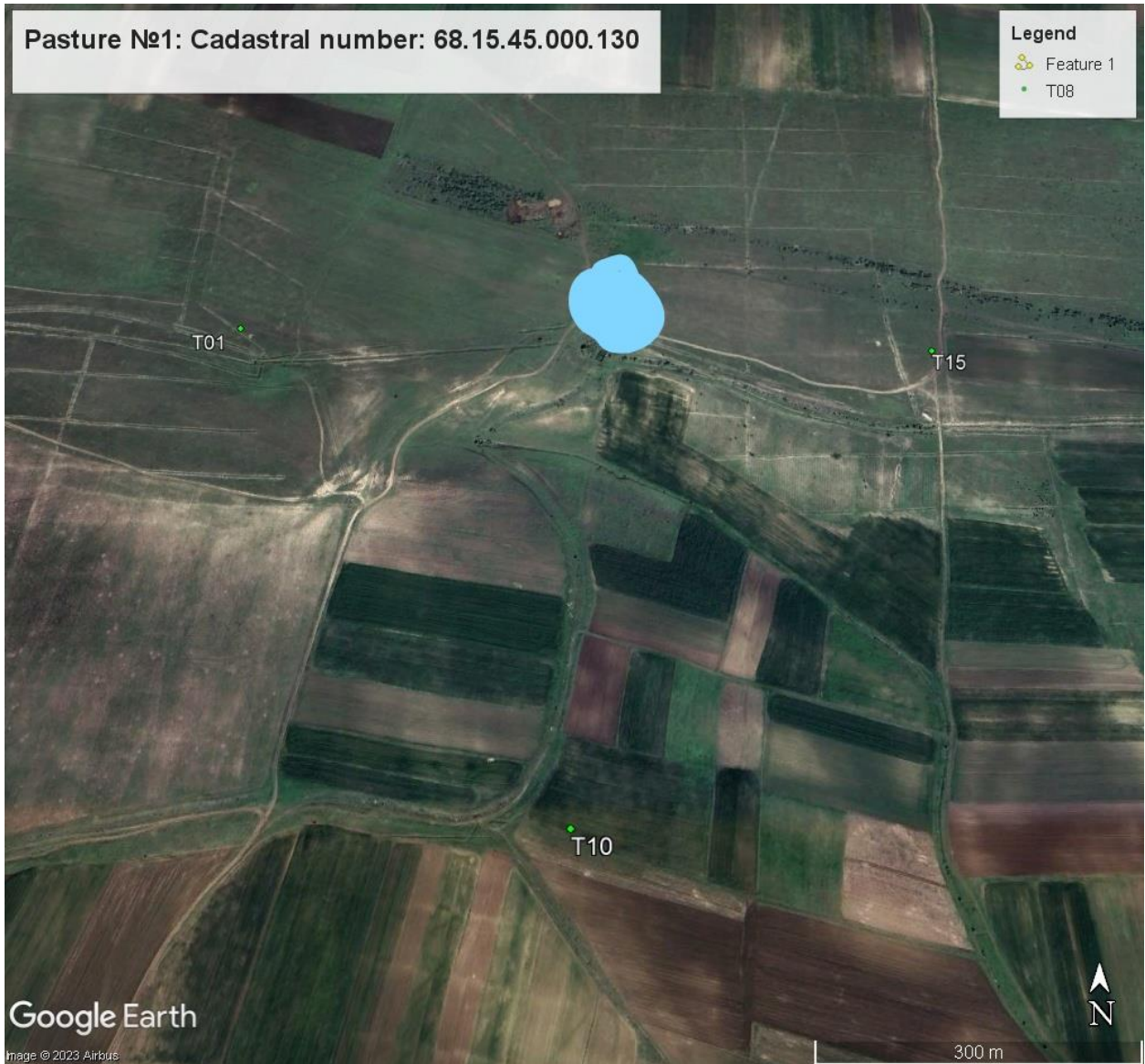
## 2.2 Field Survey of pastures

However, together with the representatives of the local authorities, the Project's Social Manager and Land Acquisition team have conducted additional field visits and have identified some small areas of state land plots informally used by the local population for pasturing their cattle/sheep.

In total, three local sites were identified in the Project affected area that are currently used by the local populations as informal pastures and they are situated in Ruisi and Urbnisi villages (Kareli Municipality) or nearby them. The identified three informal pastures are situated on the state land plots with the following cadastral numbers:

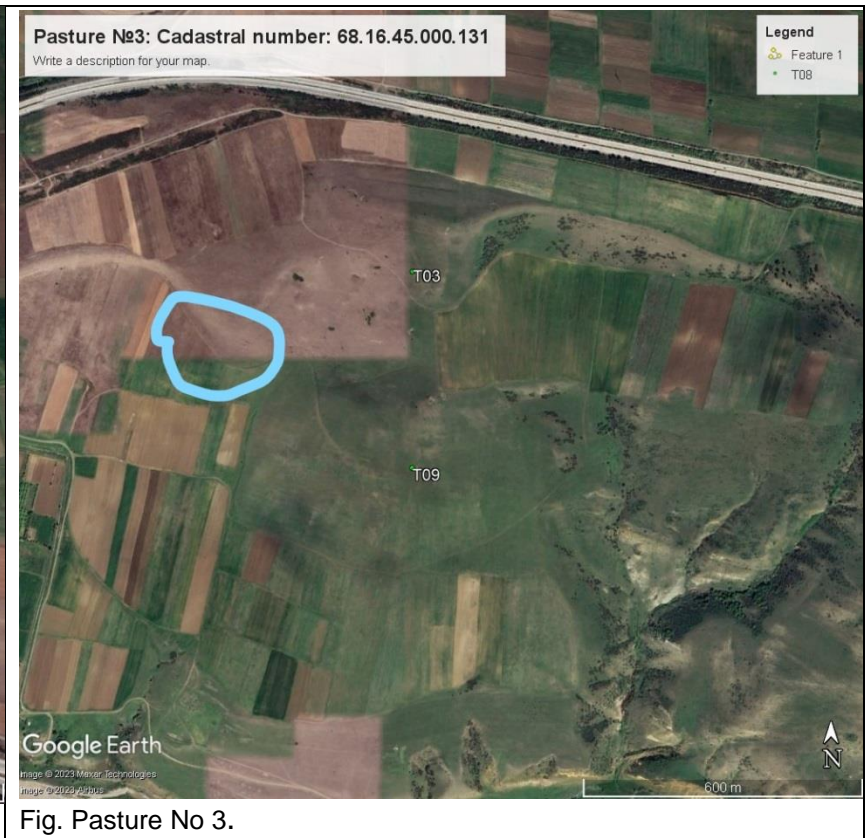
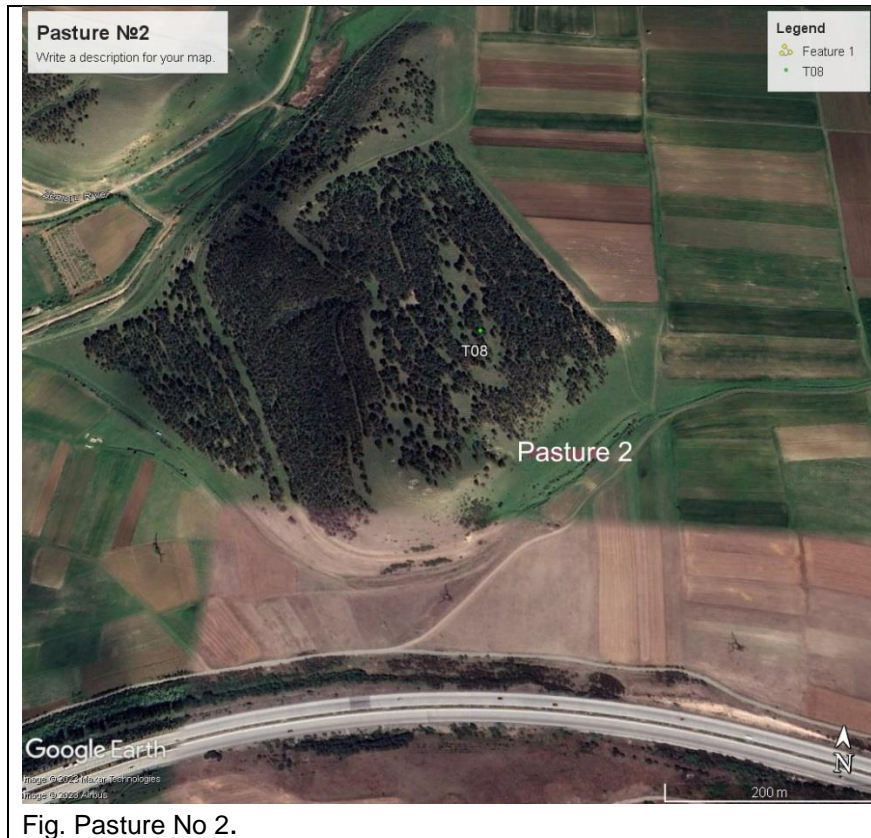
**Pasture №1:** Cadastral number: 68.15.45.000.130, **Pasture №2:** Cadastral number: 68.15.47.022.001 and **Pasture №3:** Cadastral number: 68.16.45.000.131, as shown in the map below. The mentioned state land plots cover significant area: plot № 68.15.47.022.001 is of 37.5 ha and plot № 68.16.45.000.131 is of 152 ha. However, the pastures are located on small parts of these large land plots. Parts of two of these state lands (68.15.47.022.001, and 68.16.45.000.131) are required by the Project, and will be acquired. However, these are only very small parts of the entire land plots. The land parcels needed for turbines and subject for land acquisition are located outside the area used as informal pastures.

As for the third state land, it is not required by the Project at all, however, the small pasture located on this land is in close vicinity to the land 68.15.45.000.137, which will be used for the Project.



**Figure: pasture No 1.**

### The Map \_ Three Informal Pastures





None of the identified three informal pastures fall under the areas with the permanent impact of the Project. Each informal pasture is situated at a 140-150m distance from the location of the nearest Turbines. The access roads and connection cables do not cross the pasture.

**The main conclusions of impact assessment:**

- The project footprint will not affect pastures
- Land take of the territories used for pastures is not envisaged
- No limitations of access to the pastures is imposed by the project

**3. Social assessment of the pasture use by local resident**

**3.1 Qualitative Study**

It was decided to conduct in-depth interviews with local government representatives and shepherds in the informal pastures in the close vicinity of the Project affected areas. Informal pasture areas in Ruisi and Urbnisi villages were selected for qualitative study. The Project Social Manager conducted In-depth interviews in three selected fields nearby the affected state lands. In total, nine In-depth interviews were conducted (7 with shepherds and 2 local government representatives). The main focus of the study was the following subjects:

- Frequency of usage: in particular, months of usage;
- Area of usage;
- Quantity of cattle and sheep in the informal pasture;
- Expenses on cattle/sheep;
- Alternative pastures;
- Importance of informal pastures;
- Distribution of the area among cattle/sheep owners;
- Existing obstacles;
- Etc.

**Photos from field visits**



**3.2 Quantitative Survey**

Face to Face interviews were conducted with Ruisi and Urbnisi inhabitants of certain districts. The districts were selected upon the qualitative study results where the exact districts of the villages were identified as users of three informal pastures in the vicinity of project-affected state lands. The interviews were conducted by professional independent interviewers with 10 years of experience in social studies. Quality checks of the interviews were conducted by the Project Social Manager. Most of the

respondents were project-affected land owners/users. The interviewers were assisted by the Project Land Acquisition team members. In total 102 face-to-face interviews were conducted in May-June 2023. The information was gathered on a household level. The main focus of the study was the following subjects:

- Number of cattle/sheep/horses;
- Use of pastures and frequency of usage (total days in a year);
- Locations of used pastures and their vicinity to the Project affected area;
- Expenses on cattle/sheep;
- Access to alternative pastures;
- Importance of informal pastures;
- Household total income and the share of agricultural production in it;
- Value of production from cattle/sheep used in the household;
- Etc.

### 3.3 Main Findings of the Study

#### *The scale of Impact on Existing Informal Pastures*

According to the study results (desk research/qualitative/quantitative), only three informal pastures may be affected by the Project, however, the impact could be assessed as insignificant. The following assessment is based on the actual areas of affected state lands used as informal pastures and the locations of the Turbines on those lands. In all three cases, the distance between the actual permanent impact of the Project and the informal pastures is 150m. Preliminary study results showed that there will be no straight impact on the informal pastures and their territories would not be reduced, however, shepherds and the local population should be well informed on planned construction activities and schedules to avoid any temporary impact.

Notwithstanding the identified low impact of the project on existing informal pastures, the sensitivity of the issue should be taken into consideration by the Project representatives applying the right communication methods (76% of the inquired cattle/sheep owners consider that losing access to the existing pastures would have an immense impact on their households).

#### *Use of Informal Pastures*

The areas of informal pastures are strictly defined and each pasture is used only by locals from the certain districts of the two villages. Strangers or people from other villages almost never enter the areas of all three studied informal pastures.

The number of cattle/sheep is reducing in the target villages. According to the shepherds, the total number has decreased four times in the last decade. The main reason for decay is rising expenses on cattle breeding. Nowadays there are about 100-150 cattle and fewer sheep in each of the studied pastures. All of them are pastured by the owners themselves. Each owner of the cattle has to work as a shepherd at least once per month (one time per cow in a month) or hire the shepherd which costs 40 GEL per day plus their daily meal.

#### *Annual Expenses per cattle/sheep*

Considering all the expenses, **total annual expenses per cattle/sheep make on average 1423 GEL** (including an extra 330 GEL, If the family has to hire a shepherd) per household, while an annual average value of cattle/sheep production is **7691 GEL**. According to the study results cattle/sheep breeding could be considered profitable, however, some of the owners still have no profit from it.

#### *Identified Problems*

There are no sources of water in most informal pastures and therefore cattle/sheep are thirsty the whole day until they are back at home in the evening during the pasturing season. Besides, a few owners of cows name more expenses than the value of production they get from cattle breeding which may lead to selling the animals (11% of cattle/sheep owners).

### 3.4 Recommendations

Considering the main findings of both qualitative and quantitative studies, the following recommendations were developed:

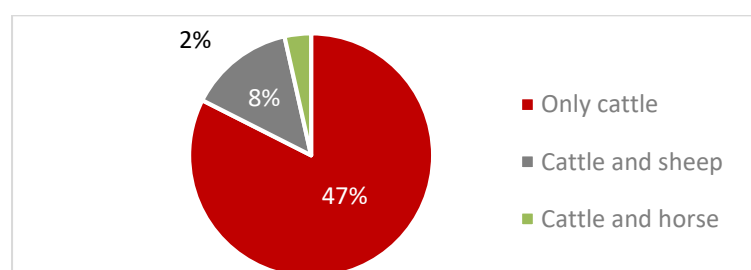
- Monitoring of all three informal pastures should take place during construction and operational periods in order to trace any impact that could be made on local cattle/sheep owners.
- Separate community meetings should be organized for users of informal pastures to discuss all the activities planned within the Project and their effect on their pasturing habits.
- The construction period nearby the identified informal pastures is better to be planned in close cooperation with shepherds agreeing on the schedule to minimize the impact.
- If any active territory of the target informal pastures is temporarily impacted by the Project during the construction period, the Project team should include impacted owners of cattle/sheep providing at least six-month food packages for their domestic animals.
- If any additional impact is identified during the monitoring process of target informal pastures during the operation phase, appropriate measures should be applied within the frames of the Livelihood Restoration Program.

### 3.5 Detailed Results of the Study

Most respondents of both quantitative and qualitative studies were men as they were more informed on pasture issues. Only 12% of respondents were women and almost all of them were the heads of the households.

More than half of interviewed locals in the frames of the quantitative survey say that they own cows (57%), while only a few of them have sheep (8%). All owners of sheep are involved in cattle breeding as well. Quantitative survey results show that on average owners of cattle keep 3 cows, while owners of sheep have on average six sheep. However, having two cows is more common as half of the owners keep this amount of cattle (52%). According to qualitative study results owning 1-2 cows is more common in the village. The maximum quantity of cattle ownership identified within the study is owning 17 cows (it was named only by one respondent).

**Chart N1 – Ownership of cattle/sheep/horse**



N=58

Considering the selection criteria of respondents, all cattle/sheep owners named at least one of the three targeted informal pastures as a main or alternative pasture used by their households. It should be also underlined here that none of the affected areas required for the Project are situated exactly at applied informal pastures but just in the vicinity of them. The distance from the pastures to the affected

areas makes about 3-4 kilometers. In one case the area is sometimes used as the cutting road towards the pastures. However, shepherds mostly use the main ground roads leading to the pastures. It is also noteworthy that informal pastures are mostly used from May till October.

According to the results of the study, the importance of the pastures is quite high among the target population. 76% of the respondents consider that losing access to the existing pastures would have an immense impact on their households. However, most of the respondents did not understand who might need the territories used as informal pastures because they are sloppy and full of stones. They mean that those territories could not be used for agricultural activities.

The quantitative study results show that locals use informal pastures on average for 199 days per year. All the other periods they have to feed their cattle/sheep hay, barley, or other food. Some food for the cattle/sheep is produced on the land plots of inquired households, however, most part of it is purchased in the markets or from the neighbors. Usage of alfalfa, bran, or chaff is less common (less than 25%) because of their price.

According to the quantitative survey results, the average expenditure on cattle/sheep food during the pasturing season (May-October) makes about 293 GEL per domestic animal. Average expenditures rise during the winter season (November-April) and they make about 800 GEL per animal. In case of losing access to the pastures, each interviewed respondent claimed they would have on average 4504 GEL extra expenses on their cattle/sheep. The named amount three times exceeds the current annual expenses on cattle/sheep breeding in the target villages.

**Table N2 \_ Average Annual Expenditure per Cattle/Sheep**

	<b>GEL</b>
Average expenditure per cattle/sheep food May-October	293
Average expenditure on shepherds per cattle/sheep May-October	800
Average expenditure per cattle/sheep food May-October	330
<b>TOTAL Annual Expenditure per cattle/sheep</b>	<b>1423</b>

The quantitative study results also show that the **average annual income** of inquired population including the value of agricultural products produced by the family, makes about **24842 GEL (on average 2070 GEL per month)**. According to the named incomes, none of the inquired households are under the poverty line and almost half of them have a higher income than identified average household income in Georgia (<https://www.geostat.ge/en/modules/categories/50/households-income>). It is noteworthy that 10% of the inquired population is fully dependent on their own agricultural production and it is their only source of income. Another 22% of respondents also name selling agricultural production as part of their annual income.

Owners of cattle and sheep say that the average value of their annual production is **7691 GEL** which in 89% of cases is profitable, while 11% of cattle/sheep owners have more expenses than profit.