

**Environmental,
Gender and Social Impact Analysis
(EGSIA) and the development of a Risk
Management and
Sustainability Plan (RMSP) for the
programme Sustainable Development of
the Area of Aragvi
Protected Landscape and the Local
Communities**

Environmental, Gender and Social Impact Assessment
(EGSIA) Report

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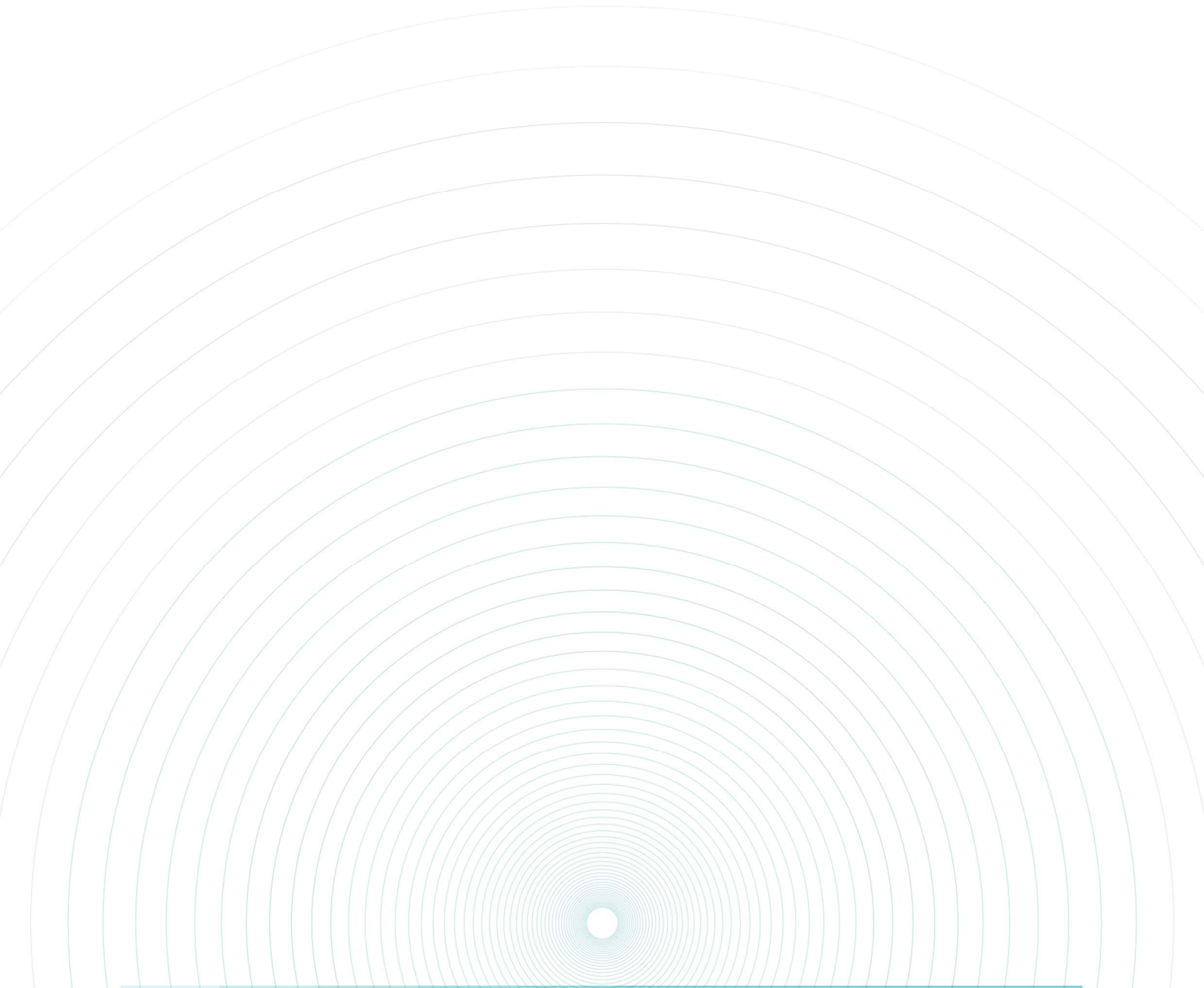
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1 Background and context

This draft Environmental, Gender and Social Impact Analysis (EGSIA) Report (hereinafter also 'EGSIA Report') represents the working output of the second phase of the project 'Environmental, Gender and Social Impact Analysis (EGSIA) and the development of a Risk Management and Sustainability Plan (RMSP) for the programme Sustainable Development of the Area of Aragvi Protected Landscape and the Local Communities' (hereinafter also 'EGSIA Aragvi').

1.1 Objectives of the assignment

The assignment 'Environmental, Gender and Social Impact Analysis (EGSIA) and the development of a Risk Management and Sustainability Plan (RMSP) for the programme Sustainable Development of the Area of Aragvi Protected Landscape and the Local Communities' aims to carry out a participatory assessment of the development programme implemented jointly by Czech Development Agency and Austrian Development Agency in Dusheti Municipality, Georgia (hereinafter also the 'Programme'). The assignment should ensure that any substantial negative environmental, gender and/or social risks and/or adverse impacts are avoided, minimized, mitigated and managed, and that environmental, gender and social opportunities and benefits are enhanced. The findings and conclusions of the assignment will also serve for validating the logframe indicators of the programme as well as all baseline and target values for these indicators.

Besides EGSIA Report, the EGSIA Aragvi includes three other tasks/outputs:

Baseline study

The baseline study, as the first step of the assignment, analysed the environmental, gender and social situation in the territory covered by the Programme and identified the key issues which are addressed in the EGSIA Report. The baseline analysis summarized existing environmental, gender and social data and information as well as it includes the results of the gender and social survey carried out.

Risk Management and Sustainability Plan (RMSP)

An RMSP will be developed based on the EGSIA and will further elaborate and operationalize the measures formulated by EGSIA for avoidance, minimization, mitigation and management of identified risks and adverse impacts, and reducing imbalances and inequalities. Equally, the RMSP

will identify measures and approaches for harnessing the potential of benefits and opportunities from an environmental, gender and social perspective.

Determination/validation of the Programme's logframe indicators

This task will determine/validate the Programme's logical framework indicators as well as all baseline and target values for these indicators.

1.2 Purpose of EGSIA Report

The EGSIA Report covers all Programme's objectives, outcomes, outputs, and activities and analyses the likely impacts of the Programme on the key environmental, gender and social issues identified in the baseline study. Based on the evaluation of the likely impacts, the EGSIA Report formulates measures to avoid or mitigate the likely adverse impacts as well as the measure to further enhance potential benefits. The draft EGSIA Report will be submitted to the Czech Development Agency and a feedback received will be reflected in the final version of the document.

2 Approach to EGSIA

2.1 Introduction

The objective of EGSIA is to analyse the likely impacts of the Programme on relevant environmental, gender and social-economic issues and to formulate measures to address these impacts – to enhance the likely positive impacts and to avoid or minimize likely adverse impacts. Thus, the EGSIA should contribute to effective implementation of the Programme supporting its environmental and social benefits and gender mainstreaming. The EGSIA covers all Programme’s objectives and expected results. It also takes into account the activities implemented so far since launching the Programme. The EGSIA considers requirements of the Environmental, Gender and Social Impact Management (EGSIM) Manual¹, in particular it reflects standards elaborated in the Manual (see Chapter 5 below).

2.2 Methods used

The EGSIA employs methods used in the strategic environmental assessment (SEA) and it follows the standard procedural logic of the (strategic) environmental and social assessment and other similar assessment applied in the context of policy making, development planning or development aid.² It combined qualitative and quantitative methods in the baseline analysis, and the expert judgment was used to a large extent to estimate the likely impacts.

2.3 Main steps

2.3.1 Baseline

The assessment of the likely impacts is based on the analysis of the current situation (baseline analysis), which described the environmental, gender and socio-economic aspects in the area covered by the Programme and outlines the key issues. The findings and results of the baseline

¹ Austrian Development Agency, 2018.

² E.g. Environmental and social safeguard policies of the World Bank, or OECD’s Good Practice Guidance on SEA for Development Cooperation (OECD, 2006)

analysis were included in the baseline analysis report, submitted as a separate output within the EGSIA Project.

2.3.2 Scoping

Based on the findings of the baseline study, a set of key environmental, gender, and social issues was defined, representing sensitive receptors which can be significantly affected by the Programme implementation. Thus, the scope of the assessment was determined and the EGSIA could focus the analysis on the actual effects of the Programme (as opposed to changes in the environmental, gender, and social conditions driven by other Programme-unrelated factors).

2.3.3 Assessment of the likely impacts and mitigation measures

The impact assessment was carried out to evaluate (i) compliance of the Programme with relevant policy objectives (environmental, gender, and social-related), as well as ii) impacts on specific environmental, gender-related and social issues identified during the scoping phase. Within the objective-led assessment component (evaluation of the compliance with policy objectives), the Programme's objectives were evaluated against the standards defined in ADA's Environmental, Gender and Social Impact Management Manual.

The expected results were evaluated against the key environmental, gender and social issues to estimate how the Programme can affect likely future trends.

For identified likely impacts the EGSIA proposed adequate response i.e. measures to further enhance likely benefits of the Programme or to avoid or minimize likely adverse impacts. The measures includes suggestions on the Programme adjustment, project-level modifications, and technical or management mitigation measures.

2.3.4 Drafting EGSIA Report

All analyses, findings and results were summarized in the EGSIA Report, its draft version to be shared with the CzDA and relevant stakeholders. Their feedback will be integrated in the final version of the report.

3 Main features of the Programme

The Programme ‘Sustainable Development of the Area of Aragvi Protected Landscape and the Local Communities’ was adopted in 2018 and its implementation is expected to be closed in 2023. The implementing institution of the Programme is the Czech Development Agency. The overall objective of the Programme is to support sustainable development of the Aragvi Protected Landscape (hereinafter also ‘APL’), composed of the regions of Pshavi, Piraketa Khevsureti and Gudamakari and specified adjacent areas, so that the current population remains there and the former inhabitants come back – either permanently or at least for the summer season. Despite their proximity to Tbilisi, these regions have been lagging behind and their population has been abandoning them. On the other hand, these regions offer a major untapped development potential.

The Programme defines three specific objectives:

- The economic situation of the local population, men and women, is improved in particular through sustainable development of tourism and agriculture
- The quality of education and social services in the region is enhanced
- Good local governance and sustainable management of the Aragvi Protected Landscape are ensured, while participation of local people belonging to the groups which tend to be under-represented in the decision-making process is enhanced

In order to achieve or contribute to above objectives, altogether 19 expected results were formulated in the areas of tourism, agriculture, education, social services, and sustainable management of the Aragvi Protected Landscape and good local governance. For each expected result, both baseline (2018) and target (2023) indicators were defined in the logical framework matrix, which is included in the annex of the Programme.

The implementation of the Programme was launched in 2018, and several projects have been implemented between 2018 and 2022. A brief description is provided below, including the indication of the likely impacts of those projects:

Ensuring of sustainable management of Aragvi Protected Landscape (National Park Krkonoše)

One of the project objectives is to set up functional tourist infrastructure, including preparation of the tourist tracks plan and the tourist maps of Aragvi in English. Part of the repairs of small infrastructure necessary for the accessibility of the full tourist tracks (e.g., two bridges). Therefore, the project probably increases the amount of the tourists in the region, their comfort, safety and can indirectly support new entrepreneurs, especially in hospitalities (guesthouses) and other small tourism related businesses.

Implementation of sustainable forestry in the Aragvi Protected Landscape (Forest Management Institute, Brandýs nad Labem)

One of the project objectives is to built capacities for wood processing and strengthen knowledge in forestry education. This could positively impact the entrepreneurial activity in the region as well as provide more job opportunities. Moreover, sustainable forestry will preserve the unique forest ecosystems and therefore the location will be in future attractive tourist destination.

Sustainable Development of Communities in Aragvi (People in Need)

The specific objective of this project is to improve the socio-economic situation of the local population. The project is providing 3 subgrant opportunities for the local community:

- 1) *Strategic projects in tourism development scheme for SMEs*
- 2) *Strategic projects in agriculture development scheme for SMEs*
- 3) *Standard projects implemented by LAG with oversight from PIN covering all themes of this project.*

This includes themes of agriculture, tourism, other income generation opportunities, gender awareness and empowerment, local culture knowledge building and environmental awareness. Private, public as well as civil society actors will be eligible for support.

The project supports locals in adopting agricultural innovation or registration of their lands and Businesses. To successfully implement awareness and empowerment activities, the project team will encourage local teachers and students to actively participate.

The project reflects the Program structure, problems such a low household incomes, civic disengagement and poor access to services. Intermediate outcomes of the project should be strengthened tourism industry, increased agricultural productivity, active LAG, safeguarding heritage and services referral.

4 Environmental, gender and socio-economic baseline

This chapter complements the information and data provided in the baseline analysis report, submitted as a separate output within the EGSIA Project. It outlines the existing and likely future trends and identifies the key environmental, gender and socio-economic issues, which represent the framework for further evaluation of the likely impacts of the Programme.

4.1 Environmental aspects

The key environmental features and protected values of the Aragvi Protected Landscape stems from the unique and well-preserved landscape combining natural as well as cultural phenomena. It is characterized by the presence of a mosaic of scattered small mountain settlements with sacred places, surrounded by fields, pastures, meadows, and forests, with high diversity of natural conditions and ecosystems. As established within the Baseline analysis combining stakeholder interviews, available official data and direct field observations (for details see the Baseline analysis report, section 3.1), the following specific issues were identified as particularly relevant in the context of the EGSIA Assessment of the programme for the Sustainable Development of the Area of Aragvi Protected Landscape and the Local Communities:

Habitats and Biodiversity

Aragvi PL belongs to the Caucasus Biodiversity Hotspot with the greatest biological diversity of any temperate forest regions in the world, incl. more than 6,500 species of vascular plants, at least 1,600 of which (25 %) are endemic. The PL is covered by one of the Priority Conservation Areas in Georgia – Khevi-Tusheti, and partially overlaps with the Important Bird Area of Khevsureti (ECODIT 2009, Zazanashvili et al. 2012). Two Special Protection Areas (SPAs) for birds are proposed along the northern border of the Aragvi PL – SPA 8 Khevsureti-Tusheti and SPA 9 Khevi (Paposhvili et al. 2016). Even though there is still a lack of systematic floristic and faunistic inventories in the Aragvi PL, the data from the surrounding areas (mainly from the Pshav Khevsureti National Park) indicated occurrence of many rare species.

The biodiversity is supported by large variability of habitat types, including variety of forests, floodplain habitats, montane hay meadows and pastures, subalpine and alpine grasslands and shrubby habitats, and habitats of subnival and nival zone in the highest parts of the Aragvi PL (see the Baseline analysis report for more extensive description of the basic natural characteristics).

Conditions of mountain meadows and alpine grasslands

The changes in the way of life and agricultural practices associated with the significant decrease in the size of grazing herds since 1990s have noticeable impact on the area of meadows and in many locations are visible signs of the grasslands being taken over by bushes and trees and gradually incorporated in adjacent forests. In particular, this applies to summer alpine pastures. Traditionally, cattle farmers spent the summer season on alpine pastures. However, fewer and fewer farmers are resorting to the practice of nomadic animal husbandry. Accordingly, the number of cattle on the alpine pastures is decreasing from year to year. Practically all the respondents interviewed during the field survey, noted that due to the reduction of grazing, the area of pastures is decreasing and their place is being replaced by forests. However, the trend is rather slow and within roughly 3 decades since the effects of the post 1990 general economic transformation causing the sharp decline in the intensity of pastoral activities it generated only marginal change in terms of the overall balance between the grassland and forest occupied territory within the PL area. A visual inspection of time series of satellite images (between 2003 and 2019) of selected locations (identified based on the field observations and stakeholder's suggestions) also did not confirm any significant changes in this regard.

Erosion (and other natural hazards)

Soil erosion including land-slides is a significant geomorphological factor throughout the whole PL territory, and particularly in upper elevations the erosion is mostly of purely natural origin. In other instances, however the human activities can be a significant contributing factor. In this context a three causes for erosion/landslide-related concerns are: overgrazing on pastures situated on steep slopes, impacts of construction of roads and other infrastructure, acceleration of erosion processes due to climate change.

The responses from the survey participants as well as the field observations confirm the notion also indicated in the Aragvi PL Management plan that unlike in some other regions in the Caucasus the overgrazing does not seem to be a serious environmental threat in the PL area, and that the pressure from grazing is currently in good balance with productivity and regeneration of alpine

grasslands and pastures. Only occasionally, in places in close surroundings of villages can appear some localized erosion hotspots that can be clearly attributed to the overgrazing.

Comparatively more important is the erosion triggered by the direct human interventions namely in the connection with the maintenance of the existing road network, construction of new roads and electricity power-lines. The inspection of several construction sites and associated erosion hotspots seems to confirm the opinion of many interviewed stakeholders, that the direct construction-related impacts are of key importance. In this regard, the 500 kV Ksani-Stepantsminda Transmission Line project is particularly noteworthy. During the on-site interviews, practically all the respondents mentioned that as a result of the construction of the mentioned electric transmission line, specifically as a result of the construction of the access roads to the construction site of the transmission towers, landslide processes were activated in the Gudamakri section of the target area. The extensive erosion signs observed during the field survey suggests that the mitigation measures described in the project related EIA documentation were not sufficient or not implemented in an effective manner.

Picture 1: A newly built power line post near Kitokhi village



Road construction and upgrading constitute another typical erosion-related nexus. In general, it should be noted that natural disasters are one of the determining factors for the unsatisfactory condition of the infrastructure in the target area. Landslides frequently damage the road surface. Most of the roads of local importance are unpaved, which makes it difficult to communicate with many settlements during the heavy winter snowfall. A particularly acute problem is the roads connecting Khevsureti, Gudamakri and Mtiuleti villages, which are difficult to pass even in summer, and are closed in winter, which causes them to be cut off from the center of the municipality. The erosion-related deterioration of the roads is repeatedly fixed through ever-large slope modifications, which without additional (arguably rather expensive) protective measures can often further exacerbate of the erosion problem in the long-term perspective. Newly upgraded road to Roshka National Monument (see below) is an example of the exposed open cut slopes without any protective measures, which will likely lead to an acceleration of erosion, probably even with negative consequences for the operability of the upgraded road.

Picture 2: Newly upgraded road to Roshka National Monument – detail of the exposed slope inviting further erosion.



In addition to the obvious construction-related erosion events, the perspective climate-change driven increase in both natural and human-caused erosion constitute an additional important concern. Recent large scale flood event with devastating impacts on the in the upper reaches of Aragvi river was accompanied by substantial remodulation of riverbed and flood plains as well as with landslides on the adjacent slopes.

According to the Fourth National Communication of Georgia³, the complex terrain often contributes to the intensification of atmospheric circulation processes and the formation of various types of extreme hydrometeorological events (flood, flash flood, avalanche, strong wind, drought, etc.) in Georgia. Such events have become increasingly frequent and intensive in the context of climate change, causing significant economic damage and often human casualties. The sum of annual total

³ Fourth National Communication of Georgia under the United Nations Framework Convention on Climate Change. <https://www.undp.org/georgia/publications/fourth-national-communication-georgia-under-united-nations-framework-convention-climate-change>

precipitation (PRCPTOT) has increased in most eastern regions of Georgia, especially in autumn. The upward trend in precipitation (expressed as Rx3day and Rx5day) on the Alazani tributaries indicates an increased flood risk. According to the applied climate change scenario, a significant increase in the number of heavy precipitation days (R30mm) is expected at Telavi, Stepantsminda, and Tianeti stations in Eastern Georgia, and R50mm at Telavi and Kvareli stations. Due to the geographical similarity, the same trend can be expected in the Programme area. The Fourth National Communication acknowledges the likely increase in the activity of geological processes due to the climate change, which has a particular relevance for the Programme area.

Forest management

The forest management in the significant part of the PL area is limited by the fact that the significant part of the roughly 40 thousand ha of the forest area is located on the slopes of more than 35 degrees and thus are legally protected from any logging (with exception of sanitary cuts). This is the case namely in the northern part of the PL territory, while conditions are somewhat more favourable for conventional forestry in the southern half of the area. The lack of legally required Forest Management Plan nevertheless prevents at the moment any regular commercial logging (limited logging for sanitary reasons or for the construction timber and firewood for the local inhabitants is possible). On the other hand, the missing management framework as well as a low capacity to impose effective control leave the forests vulnerable to illegal logging and make it difficult to enforce sound forestry practices (e.g. minimizing the avoidable impacts of heavy machinery on the soils and water streams along the transportation lines).

According to the interviewed expert participating in the current forest inventory works, the overall ecological condition of the forests in Aragvi PL is good, even though it bears marks of long history of human presence in the area (with exception of relatively small patches of ancient forests in very remote and inaccessible locations). Also the illegal logging which takes place is mostly limited to well accessible parts of forests and does not pose a significant negative impact (i.e. large scale clear cutting etc.).

The limited volume of wood for the local population has been typically harvested by a small local entrepreneur possessing the necessary equipment and transport capacity for the delivery. This approach is now considered unsatisfactory by the managing National Forest Authority due to the poor control and potential for illegal logging, and is being replaced by a new system of wood

storehouses, from which the wood could be purchased by the local inhabitants, while logging by individually contracted independent supplier will no longer be possible. The situation is further complicated by the uncertainties regarding the implementation of the new Forest Code (2021), which can bring about a termination of the socially motivated arrangements for the provisioning of the local population altogether (for the areas designated as PL by 2026).

According to the data of the Dusheti municipal development plan, the municipality has a large potential in terms of forest non-timber resources extraction, and the creation of a continuous chain of processing and sale of non-timber forest products is considered a priority. The local non-governmental organization "Rural Communities Development Agency" (with the partnership of the ENPARD program) funded the development of the collection, drying, and packaging of non-timber forest products through the BLF project. However, the findings from the local stakeholders consultations suggest studies that the population of the target area, with rare exceptions, still practically does not use the non-timber resources of the forest in any commercially productive way.

Waste management

The underdevelopment of the waste management is a continuous problem, namely in the poorly accessible settlements. The household waste collection system run by the Dusheti municipality has been recently extended alongside main roads that are regularly served by a dedicated waste collecting trucks. The collected waste is transported for a final disposal to the designated municipal waste sanitary landfill located well outside of PL territory. However, in less accessible areas the situation remains unsatisfactory and lack of systematic collection services results in developing piles of domestic waste in the near surroundings (or even inside) of villages, mainly in ravines and terrain depressions, even in villages previously equipped with the collection containers. Such freely disposed solid wastes are often washed away during strong rains and winter seasons and carried downstream by the rivers. Certain amount of garbage is also burned in households or deposited in holes dug out in the ground.

Although current waste production per households is still relatively small, considerable increase must be expected in the near future both due to expected improvement in the living standards of local people (e.g. increase in packaging wastes), and increasing waste production related to the desired tourism development.

Water

Despite the fact that there are numerous high quality springs throughout the PL territory, the lack of reliable drinking water supply as well as its inadequate quality is repeatedly mentioned by the interviewed local stakeholders. The water supply is often ensured through individually installed plastic hoses or tubes bringing water from often quite remote spring or stream. Such solutions are naturally vulnerable to mechanical failures and even to contamination from the pollution caused by roaming animals (mainly cows and horses) or by untreated wastewater discharges from upstream located households.

The problem is likely to become even more pressing in the context of desired increase in number of tourists visiting the PL; visitors usually use (and pollute) much more water than local inhabitants and poor reliability and quality of water thus can constitute additional barrier to a materialization of this development potential.

Serious problems could be expected also with waste water, which so far has not been treated at all and enter the environment without any cleaning. Bathrooms with hot water and flush toilets are still very rare in guesthouses, but visitor's demands on high quality standard will likely to stimulate improvement in this regard and consequently the increase in the amount of the generated waste water.

The guesthouses supported within the scope of the Programme have installed basic septic tanks to collect waste water.

Energy supply

The connection to the central electricity grid is available in the biggest settlements, while the more remote areas has to rely on other sources. Photovoltaic panels are used in certain households, namely after the 2019 government-sponsored initiative provided an opportunity for local permanent residents without electricity to acquire these small-scale installations. The use of wind energy is considered unsuitable for the whole APL due to its potential negative impacts on the key protected characteristic landscape features (visual and acoustic disturbance).

Firewood is primary energy source for the domestic heating (see above section on forest management). Gas delivered in portable containers is often used for cooking. Its distribution is limited to the villages accessible from the main road.

Several hydropower plants are already in operation in the PL area. An existing example of an acceptable (mini) hydropower station can be found in Roshka (with no significant impact on landscape and migration of fish). On the other hand, construction project of a huge hydropower station in Gudamakari was successfully blocked.

According to the APL Management Plan, the potential for hydropower development is probably one of the most important threats for nature and landscape in the Aragvi PL. Hydrological potential of the area is extremely high and there are plans to build power plants all along the Aragvi River and in adjacent side valleys. Strategic environmental assessment of these plans (for the whole Aragvi River basin, incl. also territory out of the PL) was prepared with the following conclusions and recommendations (SULKHANISHVILI et al. 2015):

- small hydropower (SHP) development in most sensitive areas and remote side valleys upstream shall be avoided to protect ecological conservation zones;
- focus of SHP development (1–13 MW) shall be on main valleys and a few selected larger and easily accessible side valleys, which are also the most attractive sites from the technical and economic point of view;
- mini hydropower (<1 MW) may be considered in smaller side valleys, where settlements already exist.

However, even the mini hydropower plants can be highly problematic if located in sensitive natural areas and if not taking into account a continuity of rivers and streams (e.g. by creating barriers impenetrable for water organisms). For instance, a new small HPP under Roshka (see picture below) can be considered acceptable due to the absence of a dam. Nevertheless, the required water diversion can still have an impact on the ecological flow in the related section of the Kevshureti Aragvi river namely during the low water season.

Picture 3: A new small HPP under Roshka



Landscape protection (risks from development of new major infrastructure)

Except for some minor damage in some parts of the PL (e.g. dilapidated buildings in some places, or concrete entrance of the unfinished tunnel next to the road above Korsha), the landscape character of the region is well-preserved. However, newly built high voltage lines, passing through mountain valleys and crossing mountain ridges, disrupted significantly until then preserved landscape character of the area (e.g. in Gudamakari, see pictures above).

There are also several roads upgrade projects highly problematic from the viewpoint of landscape character and risk of erosion, especially Roshka – Arkhoti (see pictures above) and Bursachiri – Karkucha, and a planned road Juta – Roshka (and further to Tusheti). However, the process of assessing the environmental impact of the new section of the later mentioned road (the section where a completely new road will be built) is suspended at the scoping stage, because the Ministry, by its decision of November 30, 2020, did not accept the submitted scoping report due to a number of shortcomings⁴. After that, the process was not updated and the project is currently not actively prepared.

⁴ <https://mepa.gov.ge/Ge/PublicInformation/29273>

Pollution and other environmental degradation

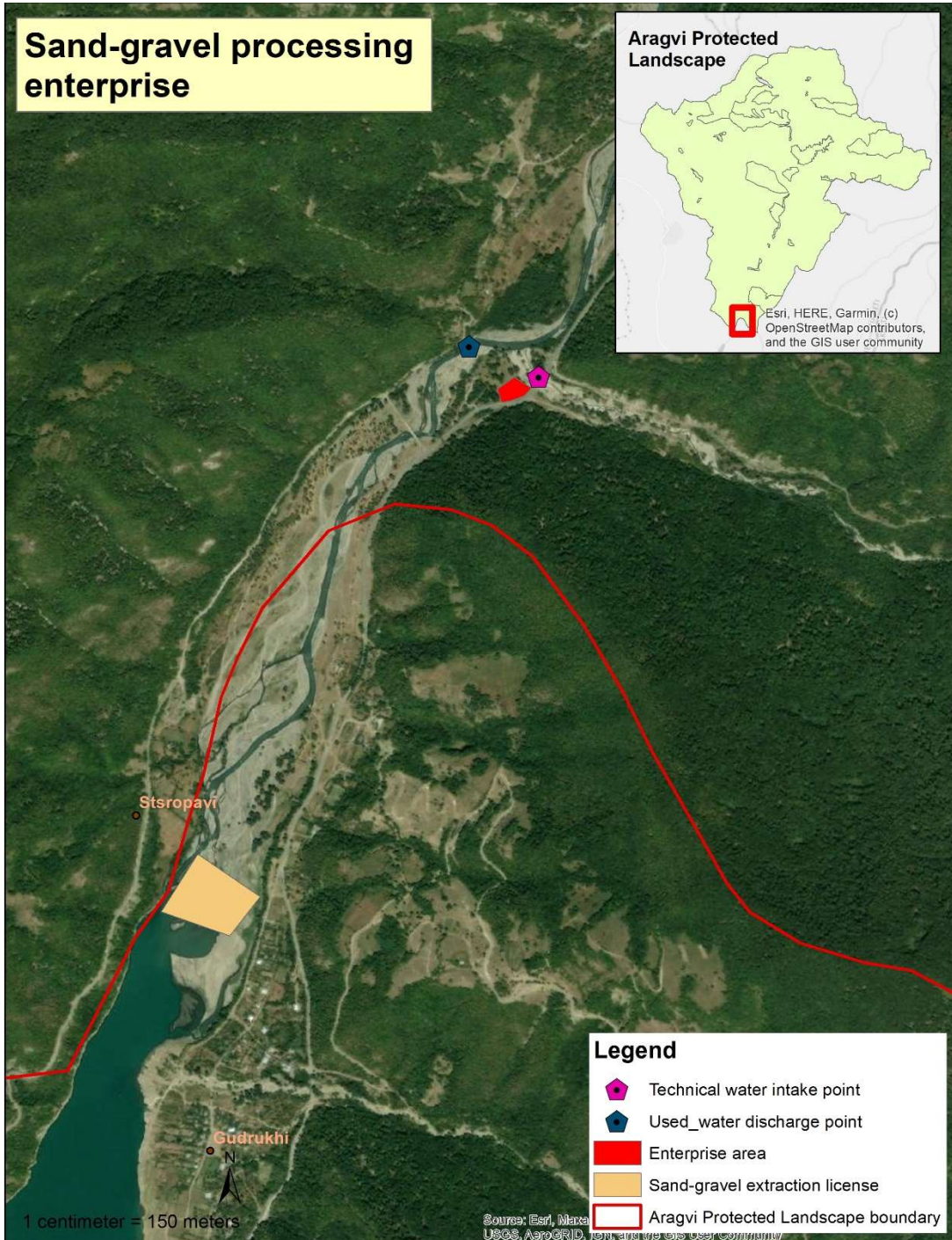
The fluvial gravel extraction constitute a potentially significant threat to the mosaic of alluvial habitats and river morphology. There are currently two valid licences for gravel mining for locations on the Aragvi river alluvium. According to the draft APL Management Plan, the licenses will not be renewed upon expiration, and the Aragvi river bed will be left to natural processes only, without any further human activities. The extracted material is used mainly for the continual reconstruction of the main road. Another source of gravel for constructions, incl. processing facilities, is located at the mouth of the Sharakhevi River. This place seems to be the only source generating material for the “export” from the Aragvi PL outwards. Another suitable deposit of gravel seems to be the estuary of the Aragvi River at the Zhinvali reservoir, which is however located outside of the PL territory.

Picture 4: Gravel extracting machinery operating within the Pshavi Aragvi riverbed upstream of the Zhingvali reservoir



The sand-gravel processing enterprise is located on the southern border of the protected landscape in the area adjacent to the village of Tvalivi.

Figure 1: Map of sand and gravel processing enterprises



The operation of the enterprise is associated with potentially significant impacts on various components of the environment. In particular, impact on biodiversity (including ichthyofauna), impact on atmospheric air (dust emission), impact on water quality (wastewater, dust entering the water environment), and impact on the social environment (dust, noise). The reviewed EIA-

screening documentation of the project provides detailed mitigating measures, the implementation of which will ensure the minimization of the mentioned impacts, however, it was not possible to assess the extent to which the measures described in the document are actually implemented within the scope of this analysis.

Impacts on Zhinvali reservoir (not regarded as key relevant issue)

Zhinvali reservoir is situated on the Aragvi River between the villages Ananuri and Zhinvali, i.e. downstream (i.e. outside) of the Aragvi PL territory (see the baseline report for details). This is by no means to say that the broader environmental changes within the APL (such as in land-use, vegetation coverage, erosion, etc.), in combination with effects of the urban and infrastructure development as well as with effects of the climate change can not have impacts on the Zhinvali reservoir. For example, a recent analysis by Kandelaki et al (2019)⁵ indicates that over the recent years, the volume of water discharged into the Zhinvali water reservoir has been much greater than it was in previous years because of more frequent and abundant rainfall, and as a result, frequent floods and the higher volume of water in the reservoir has increased the rate of sediment accumulation. The authors even recommend gravel/sand extraction as a corrective measure to maintain the reservoir's capacity.

Such links between the environmental trends within the APL and the situation of the Zhinvali reservoir (its sedimentation, water quality, seasonal water balance) certainly exists and are taken into account within the assessment of the Programme impacts on other selected key environmental issues (see the Chapter 6 below). However, given the nature and scale of the Programme interventions the risk of significant impacts of the Programme related activities on the Zhinvali reservoir is considered negligible and therefore not warranting an inclusion of the potential impact on the Zhinvali reservoir among the key environmental issues that the EGSIA is focused on (see the section 6 below).

⁵ Nodar Kandelaki et al. Impact of Natural Disasters on Water Resources in Georgia Caused by Global Warming. Archives of Hydro-Engineering and Environmental Mechanics. Vol. 66 (2019), No. 1–2, pp. 15–26

4.2 Gender aspects

Economic activities of women and men

Agriculture (family farming, animal husbandry, beekeeping) is the main source of livelihood for a large proportion of women and men in Aragvi. Apart from farming, men work as builders, drivers, road repair workers, rangers, welders, run guesthouses or are employed by the border police etc. In addition to agriculture, a significant number of women are also employed in the public sector as teachers and nurses. Some women are also involved in craft production, run guesthouses, provide veterinary service or work as accountants etc. The household survey revealed that most women were in the same occupation in 2018 and 2021. According to data from Dusheti Municipality, 7,6% of local women and 7,8% of local men were employed in the public sector in June 2022, in contrast, 11,9% of local women and 11,2% of local men worked in the private sector in the same period.

Although the idea of the male breadwinner persists among locals, the household survey showed that in many households it is women who earn the main income. For a more detailed analysis please see the baseline study (chapter 3.3.1 Economic activity and entrepreneurship from a gender perspective). This trend has gradually increased over the years and has had a positive impact on women in terms of their economic independence. Considering the limited employment opportunities this trend can be expected to continue.

Poverty and limited job opportunities

The poor condition of roads after floods has a negative impact on the development of employment opportunities, tourism, health care provision and the speed of firefighters' response to fires, etc. Poverty is faced by a large proportion of women and men living in Aragvi. In the household survey, a high percentage of women (77%) and men (70%) reported insufficient household income in 2021. One of the main reasons is the limited supply of job opportunities and the increasing precariousness of certain jobs. It should be emphasized that job development is seriously limited by poor roads. Road repair is crucial for the sustainable development of tourism and related employment opportunities, as well as for other employment opportunities. Between 2018 and 2021, the number of women and men facing poverty increased and without comprehensive road repairs, it can be expected that the number will increase further.

Low participation of women in local decision making

Stakeholder interviews revealed that the involvement of women in decision-making processes is not very common in Aragvi. In this respect, the Mayor of Dusheti Municipality is an exception who can inspire other women to apply for leadership positions. During the fieldwork we identified an example of good practice in Shuapko village where women are involved in local decision-making. They participate in the regular annual “village council” and are involved in deciding where to invest resources for the development of the village. Their involvement has contributed to the creation of a playground for children and youth in the village which can contribute to improving the quality of life of local families with young children as well as to increasing tourist attendance of parents with young children. However, without further support for women in decision-making positions, it is highly improbable that this example of good practice will be transferred to other villages.

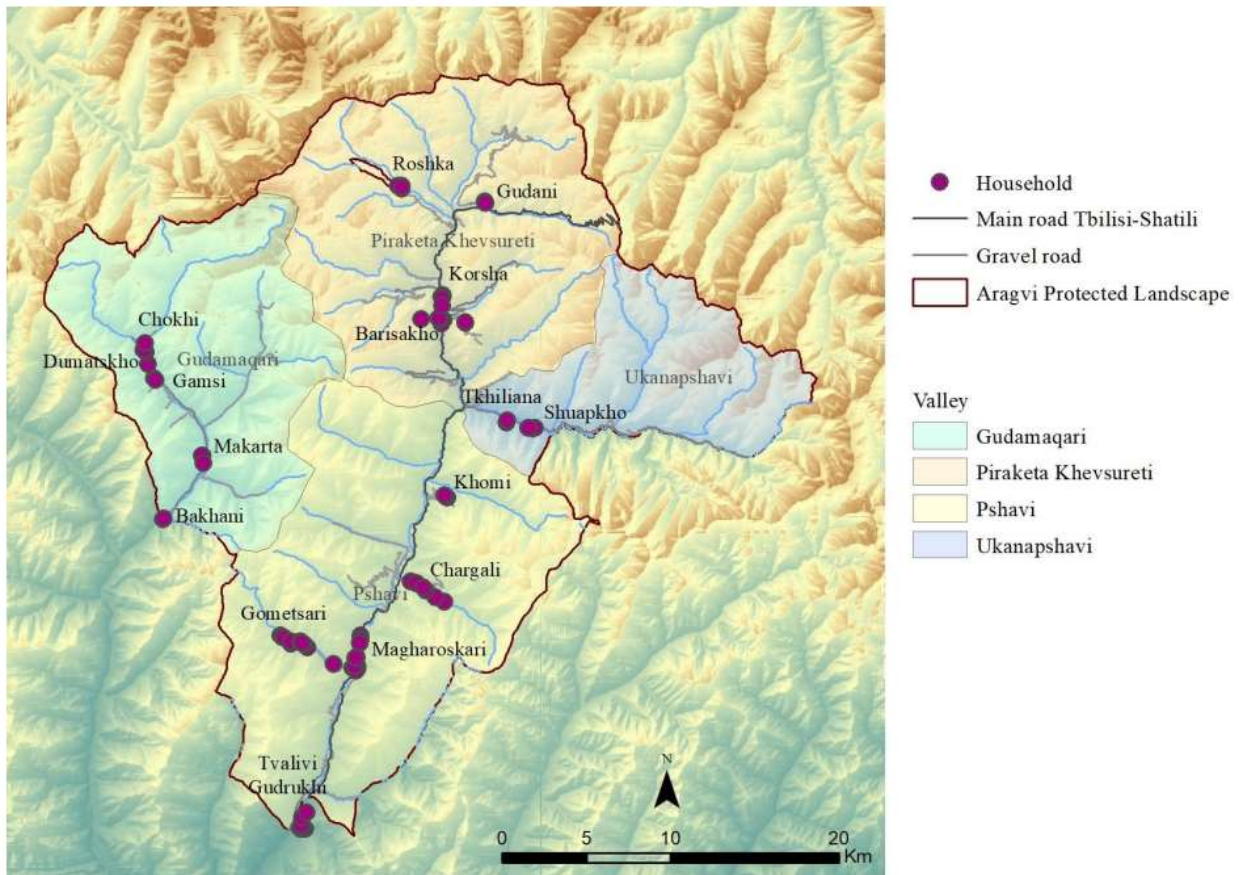
Domestic violence

Unemployment or casual precarious work (and its associated frustrations), combined with alcohol, can lead to domestic violence for some men. Therefore, it is very important to develop job opportunities for both sexes and support women in their economic independence. Unfortunately considering current conditions and existing trends it can be assumed that development of job opportunities will be slow without road repair. Limited employment opportunities will not contribute to reducing the incidences of domestic violence, but rather increase them. In addition, the field research showed that local people have an ambivalent approach to dealing with domestic violence and often do not know how to deal with domestic violence, either in the case of their own family or neighbours. Without an awareness-raising campaign, local people cannot be expected to overcome their ambivalent approach to dealing with domestic violence and begin to address it actively and constructively.

4.3 Social and economic aspects

The region of Argavi Protected Landscape (APL) can be divided into 3 – 4 separate sub-regions, namely Pshavi (also referred to as Magharoskari, referring to the largest village of the sub-region), Ukanapshavi, Khevsureti and Gudamakari. Ukanapshavi and Magharoskari are in most sources referred to jointly as Pshavi. The demographic and socio-economic structure of these sub-regions is different (see the Baseline study for more details). However, the main identified problems and trends of the APL are similar in all of them.

Figure 2: Sub-regions in Aragvi Protected Landscape



As per data provided by the municipality, there are 1715 people who live currently in the target area of APL. The highest population is in Gudamakari (709). Magharoskari has 508 inhabitants, Khevsureti 290 and Ukanapshavi 208. It can be observed that Pshavi (two sub-regions) and Gudamakari have roughly similar population

Depopulation of the region

The region is steadily losing population, especially among young people, finding is also confirmed by the long-term trend of census data which suggests a 40% decline in total population between 2002 and 2014. This has serious negative effects on the development opportunities and potential investments into the region. Moreover, there is a risk of inevitable damage and disappearance of local cultural heritage, traditions, etc.

In addition, people seasonally migrate to live in APL during the summer season. Data provided by the municipality suggest that recently the share of seasonal residents reach 45 % of the total population – 780 residents live in APL only in the summer season, compared to 942 who stay all

year long. Respondents of the focus groups pointed out that often this division can be found even within individual households – fewer members (typically men) stay in the region whole year long to take care of farm animals and others migrate out of the region for the season (typically women with children). People who live in the region seasonally stay in average 5-6 months (however, a significant proportion, 7 out of 27 respondents, remain only 3 months or less whereas only 5 respondents stay 8-10 months). Most of these seasonal residents move to Tbilisi for the winter season. No clear trend has been observed as to the main occupation or source of income of these seasonal residents.

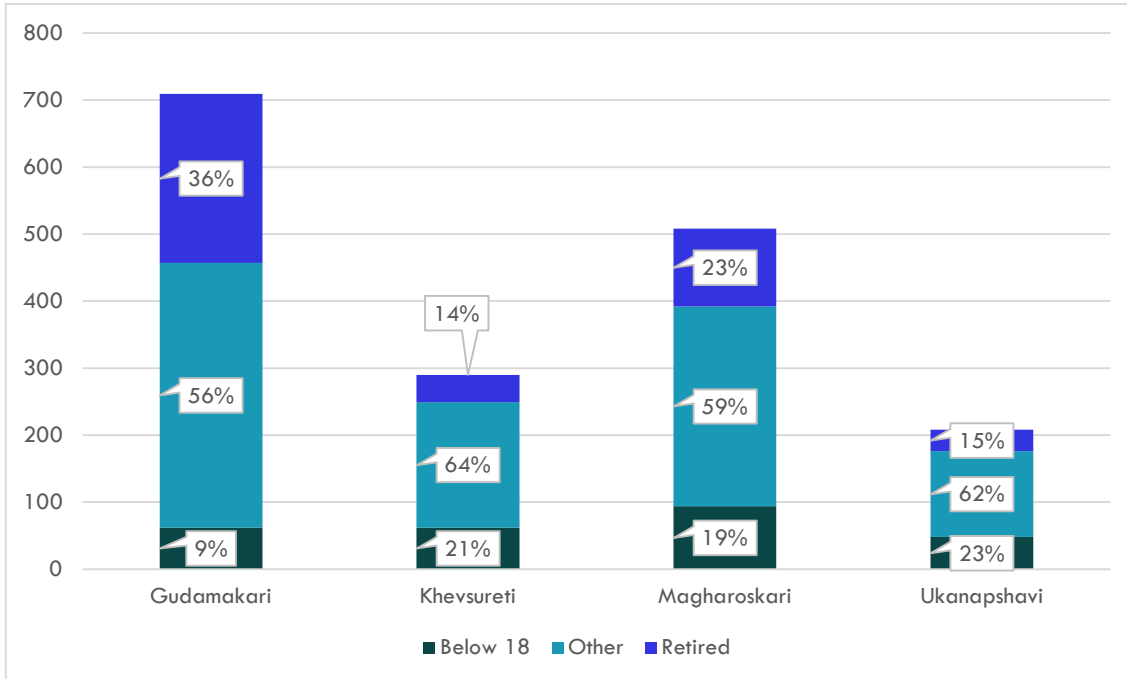
Low intra-regional mobility

Intra-regional mobility is fairly low. As many as 83 % of respondents claim that their main occupation has been located within their own village in 2021. The second highest share of respondents (9 %) are commuting to Tbilisi for work. The share of people who do not move within the region for work has slightly increased since 2018 (79 %). However, this can be due to the ageing population as seen below.

High share of elderly and retired in the population

There are marginally more men (51,9 %) than women (48,1 %) in the region. According to data provided by the Municipality, there are only 266 residents younger than 18 years, thus ca. 15.5 % - whereas the national average is ca. 10 percentage points higher. Similarly, there is a significantly higher share of elderly (retired) population, which reaches ca. 25,7 % in the whole APL, whereas the national average of the share of this age group on total population reaches only ca. 15.6 % (World Bank, 2021). The population of APL is therefore generally older than in the rest of the country, which can be attributed primarily to lack of opportunities for young people.

Figure 3: Population of APL according to sub-regions and age groups



Source: Dusheti Municipality

The demography and migration patterns are strongly determined by lack of job opportunities and accessibility of the region. The program Sustainable Development of the Area of Aragvi Protected Landscape and the Local Communities supports SMEs and local tourism, which could motivate some entrepreneurs and related employees to stay in the region. However, considering the past trends and current problems, it can be estimated that the ongoing depopulation will continue.

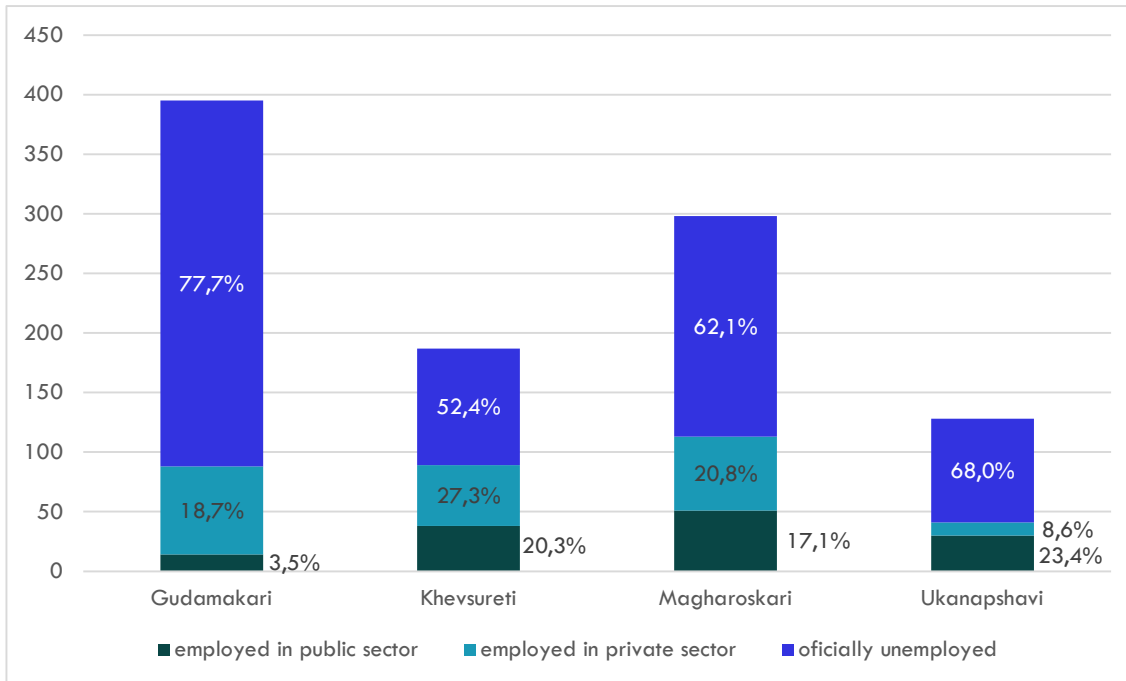
Lack of job opportunities in the region

Population prefers to have regular jobs than to start or maintain business, which could lead to lower participation in some project activities. One reason is that many of such jobs provide stable and thus larger income than business, which is mainly seasonal and costly, again, because of the road difficulties and other risks. Data provided by the municipality confirm this finding, suggesting that only approx. 33 % of the economically active population in the region is employed. This estimate however seems to be still rather high and seems to also contain occasional employments as well as self-employed residents and (naturally) people employed outside of the region – typically seasonal residents.

At the same time, the jobs are very limited. Some large villages have jobs at the municipality offices, schools and health care units. Most of the villages in Khevsureti have jobs at border police (those jobs are virtually exclusively for men), in other valleys, there are fewer jobs as rangers and

population mainly relies on agriculture. On the top of this, occasional jobs on constructions and road maintenance are available infrequently and provide some income to local residents.

Figure 4: Employment of economically active population



N=1008; underaged and retired residents not taken into account.

Low entrepreneurial activity in the region

Entrepreneurial activity in the region is very low. Key obstacles are problematic accessibility of the region, lack of the starting capital, uncertain prospect due to seasonality, legislative and sanitary requirements with regard to small scale food production. Another key obstacle is a deficit in entrepreneurial skills, knowledge and a lack of relevant and accessible trainings. At the same time, participants express resistance towards organizing themselves into cooperatives due to past experience of “forced cooperatives” as well as experience with newly established dairy cooperative in Shuapkho, which still has not started operation despite receiving investment support.

Our own survey indicates higher share of entrepreneurs among the population of APL. In total, 25 % of respondents indicated that there was an entrepreneur in their household in 2021. This represents an increase by 6 percentage points if compared to 2018 data. However, it can be argued that this rather high share of entrepreneurship in the survey is to some extent caused by different understanding of the notion of an entrepreneur. This can be demonstrated by the fact, that a

significant part of these respondents further indicated that they or their family member is running a business in agriculture, however, the context of other responses points out to the fact that these people are at most occasionally selling their produce at local market in Dusheti. If these respondents are not taken into account, the share of respondents who have run their own business in 2021 drops to ca. 15 % - which represents an increase of 5 percentage points when compared to 2018 data (9.8 %). Details are entered in the following table:

Sector	No. of respondents - 2021	No. of respondents – 2018
Tourism services	4	4
Hospitalities	4	1
Manual work and crafts	3	2
Small business (such as local shop, etc.)	6	4
Transport and logistics	1	1
Other	2	1
Not disclosed	2	1
Total	22	14

A marginal positive trend in the number of entrepreneurs can be seen between the years 2018 and 2022, especially in hospitalities (guesthouses) and other small businesses. However, these increases are made up of only several individuals. It is possible that this difference is directly related to the subgrant opportunities and it is necessary to monitor their sustainability.

Another important aspect related to the barriers for economic activity is the lack of formalized access to land. Many people living in the area or from the area have not yet legally registered the land which traditionally belongs to their families and is utilized by them. This creates barriers to enterprise development and business loans.

Low and unstable income

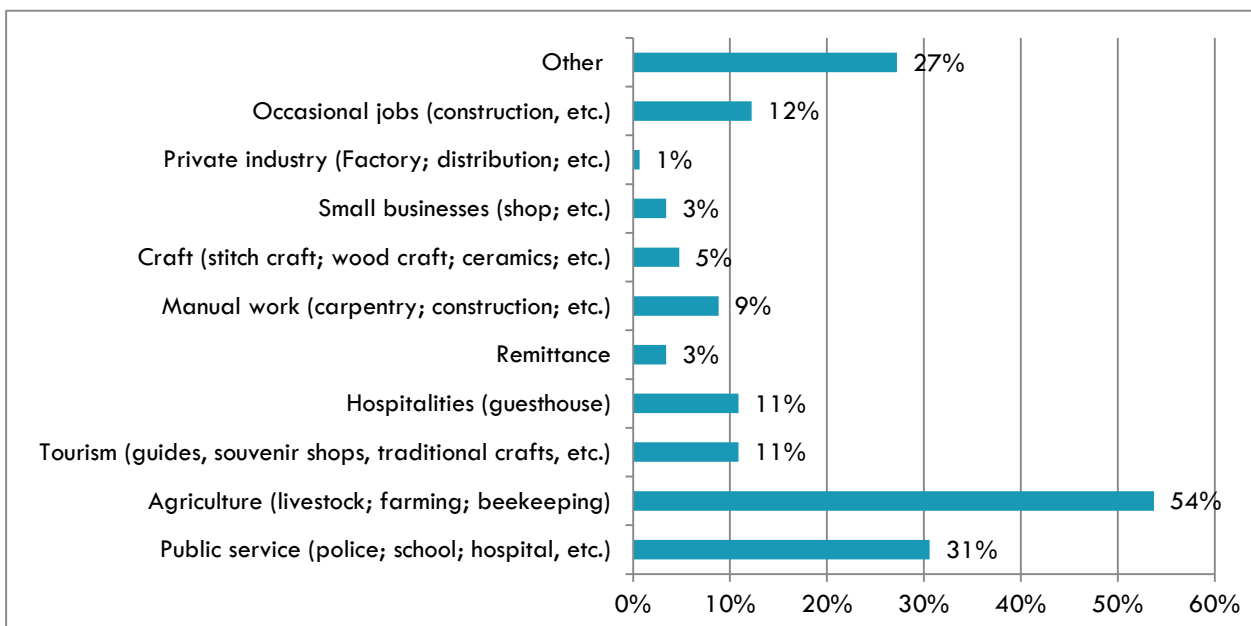
More than half of respondents indicate that agriculture is the main source of their income. The knowledge and skills of local farmers are outdated, nowadays agriculture requires new approaches



and there is need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion). Current challenge is a lack of animal fodder (hay) during the winter season. This can lead to further depopulation of the region and endanger the ecologically valuable grasslands associated with the traditional land use patterns. There is also unfulfilled potential of various traditional agricultural products, which could be new source of income, especially in combination with the developing tourism sector.

A large number of respondents have more sources of income (often unstable). In effect, it has been observed when comparing responses with qualitative responses to relevant open questions that respondents who indicate income from the public sector are often employed part-time or occasionally as cleaners, cooks or maintenance in the school. Compared to 2018 values the situation has changed only a little. A slight increase has been observed in the share of people who have income from (self-subsistence) agriculture (2.5 percentage points) and also tourism and related services (3 percentage points).

Figure 5: Main source(s) of income of respondent's household in 2021⁶



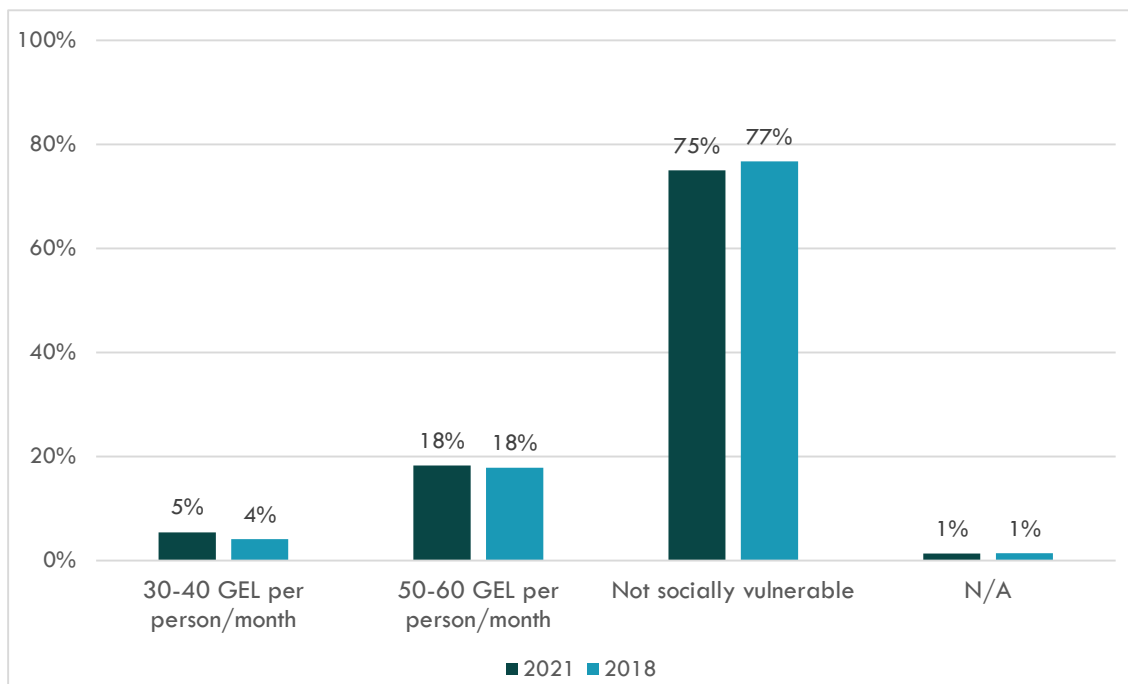
N=147

⁶ The method of data collection to some part overrepresented public employees – a significant portion of questionnaires were collected during public meetings that often took place in schools or other public buildings; in several cases local school directors were also responsible for organizing these meetings and inviting their neighbours. In effect, the meetings were more frequently visited by public employees (especially teachers).

In effect, the average incomes are low in the region and most of the population is experiencing some degree of poverty (although the share of socially vulnerable households is still rather low). In result, almost 75 % of respondents feel that the overall income of their households in 2021 was insufficient and further 19 % claim that the income was partially sufficient. Just less than 5 % of respondents feel their overall income in 2021 was sufficient for their needs. These figures remained fairly constant when compared with 2018. Similar conclusions were expressed by the participants of the focus groups who state that although there is no one suffering from hunger in the region, most residents are seen as poor.

The majority of respondents of the survey (73 %) claim that the average monthly income of their household has not been higher than 1000 GEL in 2021. This represents a small increase when compared to 2018 data when 80 % of households did not receive more than 1000 GEL per month on average. In both cases most households did not earn more than 600 GEL. These figures represent a very low income in the national context.

Figure 6: Share of respondents living in socially vulnerable households



N=148/146

Data provided by the municipality show that there are 98 households designated as socially vulnerable⁷ in the region with 259 total residents – i.e., ca. 15 %. A slightly higher figures have been reported in the survey: ca. 24 % of respondents claim that they lived in a socially vulnerable household in 2021. This represents a marginal increase compared to 2018.

Insufficient transport connection of the region (poor road network and limited public transport)

The main problem of development of the APL is accessibility. Some villages do not have roads at all, this is the case in Gudamakari, a very small part of road is paved. Some villages are located on the main road, like Korsha (Khevsureti), or Magharoskari (Pshavi), however, even these villages lack inner roads.

Another problem that is highlighted by local residents is related to heating which since no gas supply is available in the region. Alternative means of heating, namely the use of firewood, is strictly regulated. Water supply is equally problematic almost everywhere and is notable also because there are plenty of natural resources around. The problem is mainly caused by bad administration, management and planning. Assistance is needed. However, the program is not planning any activities regarding the problems with heating and water supply.

Population rarely uses internet, because they are not skilled in its usage, including the younger population (additional training is needed). Also, quite many people use internet on their mobile phones (if they have these) for communication, to talk with their family as this is for free. The access to the internet has increased significantly (from 30 to 73 %) in the region during the 2018 – 2021 period.

Low accessibility of the public services

General education is relatively accessible to children in the region (thanks to the school bus system, boarding schools etc.), however, vocational education and short training courses are not provided in the region. In the lower Pshavi region there is a boarding (primary and secondary) school in Magharoskari and a primary school in Chargali. Additionally, there is a school in the upper Pshavi

⁷ A household is designated as socially vulnerable if its monthly incomes are lower than 60 GEL per one person living in the household.

region (Ukanapshavi) in Shuaphko. In Khevsureti there is another boarding (primary and secondary) school in the regional centre, Barisakho. There is another school higher up in the region in Shatili, however, this is no longer part of the APL. In Gudamakari there is only one primary school in the village of Kitokhi, however, only a small number of pupils attend the school (5). Access to extracurricular activities/classes is limited. According to municipality data there is only one kindergarten in the APL region, namely in Magharoskari. However, participants of the focus groups have not expressed a deficit in this regard.

Basic health care is accessible, in most places there is a nurse employed in the medical office that stays in the village permanently and provides basic medical services. Most of the respondents (38 % in 2021) claim that the closest healthcare facility is within walking distance of their place of residence, indirectly confirming that inhabitants of the region are primarily visiting the local medical offices with their health issues. Most respondents claim that they did have access to appropriate health care if they needed it. However, any specialised care is complicated due to already mentioned low accessibility of regional centres.

Roughly a fifth of the respondents stated that a member of their family requires specific assistance or care due to age and/or disability. These cases have been also identified and discussed in the course of the focus groups. In all of this cases it has been concluded that the other family members with occasional help of other community members take up responsibility for the care as no other services are available in the region. This finding has been mirrored in the survey as well. Most respondents claim that they do or mostly do need additional assistance with taking care for elderly and/or disabled member(s) of their household (19 out of 28 respondents in 2021 and 15 out of 26 respondents in 2018). However, such additional assistance is not at all available – with the exception of occasional informal help of other community members.

5 Key environmental, gender and socio-economic issues

The chapter summarizes the key environmental, gender and socio-economic issues, which are relevant for the Aragvi Protected Landscape and describes the linkages between these issues and ADA's standards.

ADA's Standards	Relevant key environmental, gender and socio-economic issues (as resulted from the baseline analysis)	Link between ADA's standard and relevant environmental, gender and socio-economic issues
Biodiversity Conservation and Sustainable Natural Resource Management	Habitats and biodiversity	Nature conservation and protection of endangered species, their habitats and integrity of the valuable ecosystems is one of the objectives and reasons for Aragvi PL establishment (in addition to the protection of the unique landscape combining natural as well as cultural phenomena).
	Degradation of mountain meadows and alpine grassland ecosystems	Valuable alpine grassland ecosystems in Aragvi PL have evolved in part thanks to the existence of a traditional pasture management, which declined in recent decades, along with significant drop in numbers of grazing cattle and sheep
	Forest management	<p>The ongoing forest inventory provides in depth information about ecosystems and ecological situation of the forests in PL.</p> <p>The lack of formally approved Forest Management Plan and implementation capacities constitute risk factors for the Biodiversity conservation and sustainable management objectives of the PL</p>

		Potential for non-timber forest resources utilization presents both risks and opportunities for sustainable local economic development and biodiversity conservation.
	Waste management	Poor household waste management can have negative impact on affected ecosystems (both terrestrial and riverine).
	Water management	Non-existence of the wastewater treatment infrastructure has (potentially growing) negative impact on river ecosystems
	Energy supply	<p>Potential for hydropower generation constitute a major risk to ecological situation of rivers and related ecosystems within the PL territory.</p> <p>The electricity transmission infrastructure development can have impacts on avifauna or habitats affected by the construction</p>
	Landscape protection (risks from development of new major infrastructure)	Upgrade and development of the road network can negatively impact directly affected habitats as well as indirectly due to increased accessibility and presence of human activities causing disturbance to the vulnerable ecosystems and species.
	Pollution and other environmental degradation	Sand and gravel extraction constitute a threat to the alluvial habitats and water quality in downstream ecosystems
	Low and further declining access to quality fodder for livestock for winter season	Due to lacking manpower the residents are no longer able to mow the grassy slopes and produce hay in sufficient quantity for their animal for winter season, which may affect the traditional pasture management.

Climate Action	Erosion and related natural hazards	Natural vulnerability of the territory to erosion is likely to be further exacerbated by the predicted effects of the climate change, which increases the likelihood of natural disasters and make risk reduction efforts more costly.
	Energy supply	Predicted effects of the climate change will increase risks related to the construction and operation of the hydropower installations (less predictable flows, increased risk of erosion and catastrophic events such as floods or landslides, etc.). On the other hand, development of low-carbon energy sources for local supply can be an important part of the mitigation effort.
Resource Efficiency and Pollution Prevention Management	Waste management	<p>Poor household waste management does not allow for separate waste collection and recycling. The orientation on the tourism development may lead to increase in wastes from packaging and other single use items.</p> <p>Development of processing industries (e.g. agriculture products or forest non-timber products) can generate additional wastes and associated risks of contamination.</p>
	Water management	Non-existence of the wastewater treatment infrastructure has (potentially growing) negative impact on water quality, including the water resources for human use.
	Pollution and other environmental degradation	Sand and gravel extraction constitute a threat to the downstream water quality, including in Zhingvali reservoir outside of the PL territory.

Community Safety and Conditions Health, and Working	Negative impacts on the safety and health of communities	Safety and health of communities in APL are currently being negatively affected by lower income, insufficient heating and water supply. Some of the respondents claim that they do need additional assistance with taking care of elderly and/or disabled member(s) of their household.
	Economic activities of men and women	An increasing number of households where women are the main breadwinners may have a positive impact on women in terms of their economic independence. Nevertheless, job development for men and women is seriously limited by poor roads and local people, especially men, tend to do temporary precarious work. Limited job opportunities for men and women can also have a negative impact on the incidence of domestic violence and therefore on women's safety.
	Low participation of women in the local decision-making	There are existing good examples of women participation in the local decision-making, however these activities would require further support.
	Workers' rights and healthy working conditions	Working conditions are various due to the different jobs people are having in the region. More than half of respondents indicated that self-subsistence agriculture is the main source of their income. However, they have more sources of income, which is often unstable. In general, a significant portion of the APL population does not have a steady source of income (except for social support payments or pensions) and rely on self-subsistence, sale of agricultural surplus (without any added value) on local market in Dusheti and occasional jobs.

Cultural Heritage	Tangible and especially intangible cultural heritage in the region	Due to the decreasing population in the area, there is a risk of inevitable damage and disappearance of cultural heritage.
Displacement and Resettlement	Land rights and utilization	The region is steadily losing population, especially among young people. There is a lack of formalized access to land. Many people living in the area or from the area have not yet legally registered the land which traditionally belongs to their families and is utilized by them.
Indigenous People	Human rights	People living in the APL have unique links to the APL and all the implemented programs should respect their rights to the natural resources, territories, livelihoods and specific knowledge about APL.
	Meaningful, effective and informed participation	People residing in project target areas are either from the region and live only in the area or they seasonally travel to bigger towns and cities for work. However, their participation and consent to the implemented activities is necessary. Attention will be given to the rights of women, the elderly, persons with disabilities as well as particularly vulnerable and marginalized. Equally participation of various people in the decision making concerning the programmes/projects affecting them, and benefit thereof is crucial.

6 Likely significant environmental, gender and socio-economic effects

The evaluation of the likely impacts was conducted at two levels:

1. Objectives: The specific objectives of the Programme were evaluated against the standards defined in ADA’s Environmental, Gender and Social Impact Management Manual in order to find out whether or not the Programme’s specific objectives are in synergy with the ADA’s standards.
2. Expected results: All expected results defined in the Programme were evaluated against the key environmental, gender and social issues to estimate how the Programme can affect the likely future trends.

6.1 Evaluation of the Programme’s specific objectives

The table below described the likely linkages between ADA’s Standard and the Programme’s specific objective using following simple scale:

- + (plus) i.e. a given specific objective is in synergy with a given ADA standard;
- - (minus) i.e. a given specific objective may be in conflict with a given ADA standard;
- 0 (zero) i.e. there is no link between a given specific objective may be in conflict with a given ADA standard;

A short narrative in the third column provides explanation of the numerical evaluation.

ADA’s Standards	Specific Objectives			Comments
	<i>The economic situation of</i>	<i>The quality of education and social</i>	<i>Good local governance and sustainable</i>	

	<i>the local population, men and women, is improved in particular through sustainable development of tourism and agriculture</i>	<i>services in the region is enhanced</i>	<i>management of the Aragvi Protected Landscape are ensured, while participation of local people belonging to the groups which tend to be under-represented in the decision-making process is enhanced</i>	
Biodiversity Conservation and Sustainable Natural Resource Management	-/+	0/+	0/+	<p>Certain parts of the PL's valuable biodiversity is supported by traditional forms of agriculture (namely pastoral use of the mountain meadows and grasslands) and therefore is dependent on human presence and continuation of low-intensity agriculture and forestry. All three stated Programme specific objectives can have positive effect in this regard as they contribute to the viability of the local communities with their sustainable utilization of the natural resources (i.e. grazing and hay-making on the biodiversity rich mountain meadows) critical for the preserving some of the key conservation values of the PL.</p> <p>At the same time, development of the tourism can be associated with the increased human presence causing disturbance of the vulnerable species or specific natural ecosystems. The tourism-associated increase in generation of wastes and wastewater is another likely consequence, as well as increase in the road traffic intensity and direct knock-on effects related to any newly built tourism infrastructure (access roads, accommodation and leisure facilities,</p>

				etc.), namely where built outside of existing settlements.
Climate Action	0	0	0/+	<p>The programme objectives have only limited linkage to the Climate Change-related objectives. The Programme orientation towards sustainable use of local resources in agriculture and forestry can be understood as a contribution to the low-carbon and climate-resilient economy, however given the scale of the programme activities, such effects are likely to be only negligible. Similarly, the tourism development activities can be seen as potentially carbon-intensive (namely when tourism-associated traffic is accounted for), but in absolute terms rather insignificant, considering the nature and scale of the Programme interventions.</p> <p>The positive effect of the Programme thus can be expected namely as a result of activities supporting the improvement of the local governance and PL management, which can increase the capacity of relevant stakeholders to implement measures to reduce vulnerability and increase adaptive capacity and resilience against the relevant climate change effects and risks, such as floods, erosion and landslides.</p>
Resource Efficiency and Pollution Prevention Management	-/+	0/+	+	<p>The Programme objective focusing on the direct economic development will likely produce twofold effect from the resource efficiency and pollution prevention points of view. First, the nature of the supported activities will likely bring about benefits in terms of efficient utilization of the existing resources, continuation of the sustainable forms of agriculture with minimal agrochemistry inputs and low intensity of</p>

				<p>waste generation. Second, the interventions, while improving resource efficiency and/or pollution intensity, will also very likely be associated with increased scale of existing operations and/or output, which can lead to the increased absolute volumes of resources consumed and pollution generated (i.e. scale effect). This can be true namely for development of any processing facilities (agro-products, timber and non-timber forest products) or tourism development.</p> <p>The activities carried out under the objective related to the enhancing of the quality of education and social conditions can have certain positive effects through the improved awareness of the local population towards the potential negative consequences of the unsustainable and polluting practices (both for the human health and the viability of the local economy).</p> <p>The Programme objective related to the good governance and management is also highly relevant in this context and can potentially generate positive effects through ensuring effective framework for participatory management of the local resources and control of negative externalities associated with the economic activity.</p>
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Community Health, Safety and Working Conditions	+	+	0/-	<p>The program is supporting new sources of income for the target population through sustainable development of tourism and agriculture, which should lead to better conditions in various aspects. Within the specific objective regarding the education and social service there are activities, which directly contribute to the community health and safety.</p> <p>The program should acknowledge the need for sustainable solutions and promote sustainability in tourism, forestry management and agriculture. Therefore, the negative impacts on the ecosystem services (water resources, forests) should be minimal. However, the activities within the forest management project limited the access of local population to the firewood, which is the principal energy source of heating in the region – with potential negative impact on health issues.</p>
Cultural Heritage	0	+	+	<p>Local communities should be supported in conservation of their cultural heritage and they should share the benefits from the use of the unique cultural heritage through various education activities planned within the program.</p> <p>There is a risk in tourism development related to a negative impacts of uncontrolled / unregulated tourism. However, the program is focused on sustainable tourism, support of local crafts and traditions and well-designed activities could support cultural heritage conservation.</p>

Displacement and Resettlement	+	0	+	<p>The program should respect the traditional ownership of the land and avoid any forced evictions (e.g., during the forestry management planning or location of the tourist tracks). Moreover, the respective households should be encouraged to register their land and informed respectively to avoid any future problems in this matter.</p> <p>There is no significant link between the standard and the quality of education and social services.</p>
Indigenous People	0	0	0/-	<p>The program should encourage the participation of the local community and all its members equally. Their rights and preferences should be fully respected. Currently, a lack of equal participation has been perceived among local population; implemented activities should therefore enhance higher involvement of more groups.</p>

6.2 Evaluation of the Programme’s expected results

The tables below describe the likely impacts of the Programme’s expected results on each key environmental, gender and socio-economic issues. Following evaluation scale was used:

- -2 significantly negative impact/high risk
- -1 moderate negative impact/risk
- 0 no impacts expected
- +1 moderate positive impact/opportunity
- +2 significantly positive impact/important opportunity
- ? high uncertainty, character of likely impacts cannot be predicted

The combination of the symbols (e.g. +1/-1) indicates that the likely impacts may range from moderate positive to moderate negative, and that the real impacts will depend on a way of the

Programme's implementation. In this case, the comments provided in the 3rd column explain under which conditions the likely impacts will be positive and when there is a risk of the likely negative impacts.

The nature of the likely impacts is characterized in following categories:

- direct (e.g. preparing guide on how to deal with domestic violence can directly affect the situation) / indirect (e.g. tourism development can enhance economic situation, which indirectly can improve the situation with the domestic violence);
- short-term / long-term / permanent
- local (impacts will occur only in the close vicinity to specific projects or activities) / regional (e.g. entire area of Aragvi Protected Landscape can be affected) / transregional (i.e. regions neighbouring Aragvi can be affected)

For the likely impacts identified, measures to avoid or mitigate the likely adverse effects and to enhance likely positive effects of the Programme were formulated. The measures include the additional activities to be considered under the Programme, or recommendations for its implementation.

Based on the evaluation of the likely impacts of the individual expected results, a summary of the overall impacts of the Programme (coming from all results) on a given key environmental, gender or socio-economic issue is provided at the end of each evaluation table. The summary refers to the likely future likely future trends and explain if (and how) the Programme can affect the future trends.

6.2.1 Likely impacts on the key environmental issues

Issue: Habitats and Biodiversity			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	-1/0, direct/indirect, long-term/ local and regional	<p>Development of hiking trails and supporting infrastructure will increase human presence in the currently scarcely populated areas. Direct negative impacts will involve disturbance of wildlife, trampling on sensitive grasslands and erosion exacerbation along the tourist pathways. Indirect impacts can involve increased risk of fire, illegal deposition of wastes, and general opening up of the ecologically sensitive area for subsequent pressures associated with tourism development (attracting new investments in tourist infrastructure, namely service roads, accommodation objects etc.).</p> <p>Considering the scale of the planned intervention, the effect is not likely to be significant in the short-term perspective, but in the long run and in cumulation with other pressures (forestry, animal husbandry) can not be regarded as risk-free.</p>	<p>Consultation of the location of the trails and other physical elements of the tourism infrastructure with the PL authority.</p> <p>Minimization of the spatial conflicts with the ecologically sensitive and so far undisturbed areas.</p> <p>Marking trails preferentially on already existing roads and pathways (avoid creation of new pathways on virgin lands)</p> <p>In cooperation with PL Authority carry out regular monitoring of the trails and restrict access when direct knock-on effects will take place (e.g. damage of the grassland, disturbance of the nesting birds).</p>

<p>1.1.2 The offer of tourism services is enhanced"</p>	<p>-1/0, direct/indirect, long-term/ local and regional</p>	<p>Same as above.</p> <p>Planned activities such as <i>Setting up, upgrading, enlarging or equipping guesthouses</i>, as well as <i>Setting up campsites</i> and <i>Creating an offer of a variety of means of transport options for tourists (mountain bikes, horses, snowshoes, kayaks, rafts, etc.)</i> will likely contribute to direct knock-on negative effects (disturbance of wildlife, habitats, erosion, etc.) on the biodiversity of the PL. The effects can accumulate in the long-term perspective, even though the scale of the planned interventions is rather small at the moment.</p>	<p>Same as above.</p> <p>All physical infrastructure location decisions (guesthouses, campsites) shall be made in consultation with the APL administration.</p> <p>Supervision of the trails and related campsites shall be ensured, and performance of tourist-related services (mountain bikes, horse rides, etc.) shall be monitored and in case of an occurrence of locally significant negative impacts (e.g. exacerbating local erosion hotspot) restricted (temporarily or permanently for a given site).</p>
<p>1.1.3 More tourists visit the region</p>	<p>-1/0,+1 direct/indirect, long-term/ local and regional</p>	<p>Same as above.</p> <p>In general, any opening up of the ecologically sensitive area for subsequent pressures associated with tourism development (attracting new investments in tourist infrastructure, namely service roads, accommodation objects etc.) will likely contribute to the negative effects on the biodiversity of the PL (disturbance of wildlife, habitats, erosion, etc.). The effects can accumulate in the long-term perspective, even though the scale of the planned interventions is rather small at the moment.</p>	<p>Ensuring information about the conservation objectives and risks to biodiversity and natural habitats from the tourism activities shall be included in the all awareness rising and promotion activities related to the tourism development.</p>

		<p>On the other hand, the specific planned activities such as <i>Providing courses for local guides to acquire appropriate knowledge and skills</i>, and <i>Strengthening of the local culture and traditions and presenting them to national and international tourists</i> have a potential for positive impact through raising awareness about the natural values and nature conservation objectives of the APL among the local population as well as incoming tourists</p>	
<p>1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient</p>	<p>0/+1 indirect/local and regional</p>	<p>The programme component supports re-introduction of traditional cattle races, upto-date methods of cattle crossbreeding or purchase of modern equipment for cattle/sheep breeding and bee keeping.</p> <p>That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL. The Programme support is not intended to increase the overall herd size in the APL, which is significantly lower compared to the historical number of cattle supported by the area.</p> <p>The support for bee-keeping may contribute to the increase in numbers of bees in the area. The risk of a</p>	

		negative consequences for the wild pollinators due to competition with the domestic bees is however considered negligible as the population of the domestic bees is small in the relation to the total PL area.	
1.2.2. Grass cutting, packing and transport are more efficient	+1/+2 direct, local and regional	Support for acquiring machinery for grass cutting, packing and transport that is suitable for steep slopes directly contributes to preserving the biodiversity-rich alpine meadows, and the unique landscape mosaic associated with the traditional land use patterns in the APL.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	Intervention includes support for development of trademark(s) for local products as well as acquiring small equipment (i.e. small greenhouse or drying machine to dry herbs or fruits and berries) etc. No significant consequences for the biodiversity is expected.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	Intervention focuses on supporting cooperatives to increase the efficiency of agricultural production (shared machinery) as well as marketing of products.	

		No significant consequences for the biodiversity is expected.	
1.2.5. Knowledge and skills of local farmers are improved	0/+1 indirect/local and regional	<p>The programme component supports agriculture-related training activities.</p> <p>That will contribute to the preserving of the agriculture activities including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p> <p>The programme indicates “sustainable management of meadows (avoiding overgrazing, erosion, etc.)” as one of the key topics the support will focus on.</p>	
2.1.1. The knowledge of the local population about their region is deepened	0/+1 indirect local, regional	Improved awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the protection of the biodiversity and habitats, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects on the biodiversity and habitats are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects on the biodiversity and habitats are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>+1 indirect, local/ regional</p>	<p>Environmental education will have indirect positive effect indirect positive impact on the protection of the biodiversity and habitats, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects on the biodiversity and habitats are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects on the biodiversity and habitats are expected	
2.2.3. A basic social assistance and care is provided	0	No effects on the biodiversity and habitats are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	+1/+2 indirect, regional	The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of valuable habitats and biodiversity within concerned area. The management plan contains among other components initial analysis of the present biodiversity, valuable ecosystems and habitats and set nature conservation objectives and measures for their achievement. The expected effects are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan.	

3.1.2 Methodological materials are created	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The biodiversity inventory and monitoring established within this Programme intervention is particularly important for the successful implementation of the APL nature protection objectives.</p>	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
3.1.4 A Local Action Group is established and functioning	0	No effects on the biodiversity and habitats are expected	

<p>3.1.5. Introduction and operations of sustainable forest management of the "Aragvi Protected Landscape"</p>	<p>+1 indirect, regional</p>	<p>Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.</p> <p>Carrying out the forest inventory will have positive effect in terms of identification of valuable forest ecosystems and habitats as well as biodiversity hotspots and directly contribute to the development of the APL Management Plan (including the development of zoning and conservation objectives).</p> <p>Forest management plan can also have potentially positive effects in terms of ensuring sustainable management respecting the nature conservation objectives of the APL.</p>	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have positive impact (from moderate to significant) on the APL biodiversity and habitats, due to its support for establishment of the APL administration including the development of the APL Management Plan, and it is not likely there will be any significant negative impacts from other components of the Programme</p>			

The tourism-related interventions are associated with certain risks stemming from the potential increase of the human presence in the area which can cause disturbance to wildlife and sensitive habitats. Considering the limited scale of the programme, the size of the APL territory, and the relative small potential increase in number of incoming tourists (in comparison with more attractive regions in Georgia), the potential negative impacts (if any) will likely be small and localized, and cumulatively not exceeding the carrying capacity of the APL.

On the other hand, the Programme interventions focusing on the support of the local agriculture can have positive effect in terms of preserving the existence of the biodiversity-rich mountain meadows and grasslands, which are dependent on continuation of the traditional management (hay-making and pasturing).

Issue: Conditions of mountain meadows and alpine grasslands

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	-1/0, direct/ long-term/ local	Direct impacts may involve trampling on sensitive grasslands and erosion exacerbation along the tourist pathways.	<p>Consultation of the location of the trails and other physical elements of the tourism infrastructure with the PL authority.</p> <p>Minimization of the spatial conflicts with the ecologically sensitive and so far undisturbed areas.</p> <p>Marking trails preferentially on already existing roads and pathways (avoid creation of new pathways on virgin lands)</p>

<p>1.1.2 The offer of tourism services is enhanced"</p>	<p>-1/0, direct/ long-term/ local</p>	<p>Same as above</p> <p>Direct impacts may involve trampling on sensitive grasslands and erosion exacerbation along the tourist trails, campsites, and due to mountain biking and horse-riding pathways.</p> <p>However, the tourism-related transport services are likely to use existing roads and pathways, and therefore no significant negative impact on alpine meadows and grasslands is expected.</p>	<p>Consultation of the location of guest houses and other physical elements of the tourism infrastructure with the PL authority.</p> <p>Marking trails preferentially on already existing roads and pathways (avoid creation of new pathways on virgin lands)</p> <p>Supervision of the trails and related campsites shall be ensured, and performance of tourist-related services (mountain bikes, horse rides, etc.) shall be monitored and in case of an occurrence of locally significant negative impacts (e.g. exacerbating local erosion hotspot) restricted (temporarily or permanently for a given site).</p>
<p>1.1.3 More tourists visit the region</p>	<p>-1/0,+1 direct/indirect, long-term/ local and regional</p>	<p>No significant impacts on mountain meadows and grasslands is expected</p> <p>In general, the overall increase in tourism is associated with the risks of negative impacts on the ecologically sensitive area such as the alpine meadows even though</p>	<p>Ensuring information about the conservation objectives and risks to the mountain meadows and alpine grasslands from the tourism activities shall be included in the all awareness rising and promotion activities related to the tourism development.</p>

		<p>the scale of the planned interventions is rather small at the moment.</p> <p>On the other hand, the specific planned activities such as <i>Providing courses for local guides to acquire appropriate knowledge and skills</i>, and <i>Strengthening of the local culture and traditions and presenting them to national and international tourists</i> have a potential for positive impact through raising awareness about the natural values and nature conservation objectives of the APL among the local population as well as incoming tourists.</p>	
<p>1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient</p>	<p>0/+1 indirect/local and regional</p>	<p>The programme component supports re-introduction of traditional cattle races, upto-date methods of cattle crossbreeding or purchase of modern equipment for cattle/sheep breeding and bee keeping.</p> <p>That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable meadows and alpine grasslands. The Programme support is not intended to increase the overall herd size in the APL, which is significantly lower compared to the historical number of cattle supported by the area.</p>	

<p>1.2.2. Grass cutting, packing and transport are more efficient</p>	<p>+2 direct, local and regional</p>	<p>Support for acquiring machinery for grass cutting, packing and transport that is suitable for steep slopes directly contributes to preserving the biodiversity-rich alpine meadows, and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p>	
<p>1.2.3. Production of traditional and organic agricultural local products is enhanced</p>	<p>0/+1 indirect, local and regional</p>	<p>Intervention includes support for development of trademark(s) for local products as well as acquiring small equipment (i.e. small greenhouse or drying machine to dry herbs or fruits and berries) etc.</p> <p>No direct impacts on the situation of mountain meadows is expected. Indirectly, the intervention can contribute to the continuation of the traditional form of agriculture, including the preservation of the mountain meadows.</p>	
<p>1.2.4. Cooperation among farmers in production and marketing is enhanced</p>	<p>0/+1 indirect, local and regional</p>	<p>Intervention focuses on supporting cooperatives to increase the efficiency of agricultural production (shared machinery) as well as marketing of products.</p> <p>No direct impacts on the situation of mountain meadows is expected. Indirectly, the intervention can contribute to the continuation of the traditional form of</p>	

		agriculture, including the preservation of the mountain meadows.	
1.2.5. Knowledge and skills of local farmers are improved	0/+1 indirect/local and regional	<p>The programme component supports agriculture-related training activities.</p> <p>That will contribute to the preserving of the agriculture activities including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p> <p>The programme indicates “sustainable management of meadows (avoiding overgrazing, erosion, etc.)” as one of the key topics the support will focus on.</p>	
2.1.1. The knowledge of the local population about their region is deepened	0/+1 indirect local, regional	Improved awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the protection of the unique landscape including the mountain meadows, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects on the mountain meadows and alpine grasslands are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects on the mountain meadows and alpine grasslands are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>+1 indirect, local/regional</p>	<p>Environmental education will have indirect positive effect on the protection of the environment, including the specific values related to the preservation of the mountain meadows, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects on the mountain meadows and alpine grasslands are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects on the mountain meadows and alpine grasslands are expected	
2.2.3. A basic social assistance and care is provided	0	No effects on the mountain meadows and alpine grasslands are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	+1/+2 indirect, regional	The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of valuable habitats and biodiversity within concerned area, including the valuable mountain meadows and alpine grasslands. The management plan contains among other components initial analysis of the present biodiversity, valuable ecosystems and habitats and set nature conservation objectives and measures for their achievement. The expected effects are potentially significantly positive, though indirect, and their scope	

		will depend on the successful implementation of the Plan.	
3.1.2 Methodological materials are created	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The biodiversity inventory and monitoring established within this Programme intervention is particularly important for the successful implementation of the APL nature protection objectives.</p>	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	

3.1.4 A Local Action Group is established and functioning	0	No effects on the biodiversity and habitats are expected	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0/+1 indirect, regional	<p>Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.</p> <p>Forest management plan can have potentially positive effects in terms of ensuring sustainable management respecting the nature conservation objectives of the APL, including protection of the mountain meadows and grasslands from spontaneous forest expansion</p>	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have insignificant net positive impact on the mountain meadows and alpine grasslands. The development and implementation of the APL Management Plan focusing on the landscape protection and biodiversity conservation will have positive effect through providing and reference point for the planning and implementation of measures supporting continuation of the traditional land-use and agricultural management practices consistent with the nature and biodiversity conservation objectives of the APL.</p>			

The Programme interventions focusing on the support of the local agriculture can have positive effect in terms of preserving the existence of the biodiversity-rich mountain meadows and grasslands, which are dependent on continuation of the traditional management (hay-making and pasturing).

The tourism-related interventions are associated with certain risks stemming from the potential increase of the hiking tourists trampling on the alpine turf and thus cause damage to it. Considering the relative small potential increase in number of incoming tourists (in comparison with more attractive regions in Georgia), the potential negative impacts (if any) on the valuable grassland is likely to be small and localized.

Issue: Erosion (and other natural hazards)

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	-1/0, direct/indirect, long-term/ local	Development of hiking trails and supporting infrastructure will increase human presence in the currently scarcely populated areas. Direct impacts will involve trampling on sensitive grasslands and erosion exacerbation along the tourist pathways.	Consultation of the location of the trails and other physical elements of the tourism infrastructure with the PL authority. Marking trails preferentially on already existing roads and pathways (avoid creation of new pathways on virgin lands)

<p>1.1.2 The offer of tourism services is enhanced"</p>	<p>-1/0, direct/ long-term/ local</p>	<p>Direct impacts may involve trampling on sensitive grasslands turfs and erosion exacerbation along the tourist trails, campsites, and due to mountain biking and horse-riding.</p> <p>However, the tourism-related transport services are likely to use existing roads and pathways, and therefore no significant negative impact on alpine meadows and grasslands is expected.</p> <p>Construction of infrastructure (guesthouse, campsite, etc.) is associated with the risk of triggering erosion or land-slide processes.</p>	<p>Consultation of the location of guest houses and other physical elements of the tourism infrastructure with the PL authority.</p> <p>Supervision of the trails and related campsites shall be ensured, and performance of tourist-related services (mountain bikes, horse rides, etc.) shall be monitored and in case of an occurrence of locally significant negative impacts (e.g. exacerbating local erosion hotspot) restricted (temporarily or permanently for a given site).</p>
<p>1.1.3 More tourists visit the region</p>	<p>0</p>	<p>No significant impacts in terms of erosion is expected</p> <p>In general, the overall increase in tourism is associated with the risks of negative impacts, including exacerbating erosion in vulnerable locations where tourist related activities (including transport) take place.</p> <p>On the other hand, the specific planned activities such as <i>Providing courses for local guides to acquire appropriate knowledge and skills</i>, and <i>Strengthening of</i></p>	<p>Ensuring information about the conservation objectives and risks (including erosion and landslide risks) from the tourism activities shall be included in all awareness rising and promotion activities related to the tourism development.</p>

		<p><i>the local culture and traditions and presenting them to national and international tourists have a potential for positive impact through raising awareness about the natural values and nature conservation objectives as well as potential negative impacts of the tourism activities (including exacerbating of the erosion and land-slide risks) of the APL among the local population as well as incoming tourists.</i></p>	
<p>1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient</p>	<p>0</p>	<p>The programme component supports re-introduction of traditional cattle races, upto-date methods of cattle crossbreeding or purchase of modern equipment for cattle/sheep breeding and bee keeping.</p> <p>That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL. The Programme support is not intended to increase the overall herd size in the APL, which is significantly lower compared to the historical number of cattle supported by the area. I.e. the risk of exacerbation of the existing erosion of grazing areas as a result of these Programme interventions is negligible.</p>	

<p>1.2.2. Grass cutting, packing and transport are more efficient</p>	<p>-1/0</p>	<p>The Programme intervention includes support for acquiring machinery for grass cutting, packing and transport that is suitable for steep slopes. That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p> <p>Employment of a heavy machinery in the maintenance of the hay-making meadows on the steep slopes is associated with additional erosion risk.</p>	<p>Minimize use of heavy machinery on the erosion-affected locations.</p> <p>Minimize frequent moves of the vehicle in the same path within the meadow area to prevent compacting of the topsoil and disturbing the turf.</p>
<p>1.2.3. Production of traditional and organic agricultural local products is enhanced</p>	<p>0</p>	<p>Intervention includes support for development of trade-mark(s) for local products as well as acquiring small equipment (i.e. small greenhouse or drying machine to dry herbs or fruits and berries) etc.</p> <p>No significant consequences for the erosion is expected.</p>	
<p>1.2.4. Cooperation among farmers in</p>	<p>0</p>	<p>No impact on the erosion is expected</p>	

production and marketing is enhanced			
1.2.5. Knowledge and skills of local farmers are improved	0/+1 indirect/local and regional	<p>The programme component supports agriculture-related training activities.</p> <p>That will contribute to the preserving of the agriculture activities including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p> <p>The programme indicates “sustainable management of meadows (avoiding overgrazing, erosion, etc.)”, and “how to adapt to climate change” as one of the key topics the support will focus on.</p>	
2.1.1. The knowledge of the local population about their region is deepened	0	No impact on the erosion is expected	

2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No impact on the erosion is expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No impact on the erosion is expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	+1 indirect, local/regional	Environmental education will have indirect positive effect indirect positive impact on the protection landscape and soils from erosion and impacts of the climate change, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.	

2.2.1. The education and skills of medical personnel are improved	0	No impact on the erosion is expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No impact on the erosion is expected	
2.2.3. A basic social assistance and care is provided	0	No impact on the erosion is expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0/+1 indirect, regional	The development of the Aragvi Protected Landscape Management Plan can potentially contribute to the systematic monitoring and addressing erosion processes in the APL. The expected effects are positive, though indirect, and their scope will depend on the successful implementation of the Plan.	
3.1.2 Methodological materials are created	0/+1 indirect, regional	Similar as above. The Programme will assist establishment of the APL administration and support the implementation of its	

		basic functions. The monitoring of the erosion risks (namely those associated with man-made activities and developments within the APL territory are of considerable importance for the successful implementation of the APL objectives.	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0/+1 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
3.1.4 A Local Action Group is established and functioning	0	No effects on the erosion are expected	
3.1.5. Introduction and operations of sustainable forest management of the	+1 indirect, regional	Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.	

<p>Aragvi Protected Landscape"</p>		<p>Carrying out the forest inventory will have positive effect in terms of identification of valuable forest ecosystems and habitats as well as biodiversity hotspots and directly contribute to the development of the APL Management Plan (including the development of zoning and conservation objectives).</p> <p>Forest management plan can also have potentially positive effects in terms of ensuring sustainable management respecting the nature conservation objectives of the APL.</p>	
<p>Summary of the likely impacts:</p> <p>The Programme is not expected to have significant impact on the APL in terms of erosion (and other natural hazards).</p> <p>The tourism-related interventions are associated with certain risks stemming from the potential increase of the human presence and tourism-related traffic in the erosion-prone areas. Similarly, the increase in use machinery for hay-making operations on the steep slopes can potentially cause exacerbation of the erosion processes. These Programme-related effects are however likely to be small, and relatively insignificant in comparison with the other factors responsible for the major man-caused erosion events and landslides (which are occurring mainly in connection with roads and power-lines constructions).</p> <p>On the other hand, the Programme interventions focusing on the support of the local agriculture can have positive effect in terms in terms of minimizing erosion and adaptation to the climate change-related risks (interventions focusing on training and education).</p>			

Issue: Forest management			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	-1/0	No significant consequences for the forests is expected. The increased presence of tourists may increase risk of forest fire	Forest fire prevention instructions shall be communicated to the tourists (e.g. warning signs on the marked trails, tourism information materials etc.) Dedicated campsites with safe spaces for campfire shall be designated.
1.1.2 The offer of tourism services is enhanced"	0	No significant consequences for the forests is expected. Given the nature and scale of the planned interventions no effects such as increased demand for wood and timber or non-timber forests product is expected.	
1.1.3 More tourists visit the region	0	No significant consequences for the forests is expected.	

		Given the nature of the planned interventions (i.e. courses for guides, presentation and publicity of the APL etc., no effects on forests is anticipated	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	<p>No significant consequences for the forests is expected.</p> <p>Maintenance of the traditional animal husbandry contribute to the balance of the forests vis-à-vis mountain grasslands.</p>	
1.2.2. Grass cutting, packing and transport are more efficient	0	<p>No significant consequences for the forests is expected.</p> <p>Maintenance of the traditional animal husbandry contribute to the balance of the forests vis-à-vis mountain grasslands.</p>	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	<p>No significant consequences for the forests is expected.</p> <p>Maintenance of the traditional animal husbandry contribute to the balance of the forests vis-à-vis mountain grasslands.</p>	

1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects on the forests are expected.	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects on the forests are expected.	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects on the forests are expected.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects on the forests are expected.	
2.1.3. The knowledge of the local people about the women	0	No effects on the forests are expected.	

empowerment and prevention of gender-based violence is enhanced			
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	+1 indirect, local/regional	Environmental education will have indirect positive effect indirect positive impact on the protection of the forests and increase motivation of local inhabitants to participate in the effort related to the sustainable forest management and landscape protection.	
2.2.1. The education and skills of medical personnel are improved	0	No effects on the forests are expected.	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects on the forests are expected.	

2.2.3. A basic social assistance and care is provided	0	No effects on the forests are expected.	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	+1/+2 indirect, regional	The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of natural values including forest ecosystems within the concerned area. The management plan contains among other components initial analysis of the present biodiversity, valuable ecosystems and habitats and set nature conservation objectives and measures for their achievement. The expected effects for the protection of forests are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan.	
3.1.2 Methodological materials are created	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The biodiversity inventory and monitoring established within this Programme intervention is particularly important for the successful implementation of the APL nature protection</p>	

		objectives, which will have positive impact on the ecological status of the forests.	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
3.1.4 A Local Action Group is established and functioning	0	No effects on the forests are expected.	
3.1.5. Introduction and operations of sustainable forest management of the "Aragvi Protected Landscape"	+2 indirect, regional	<p>Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.</p> <p>Carrying out the forest inventory will have positive effect in terms of identification of valuable forest ecosystems and habitats as well as biodiversity hotspots and directly contribute to the development of</p>	

		<p>the APL Management Plan (including the development of zoning and conservation objectives).</p> <p>Forest management plan can also have potentially positive effects in terms of ensuring sustainable management respecting the nature conservation objectives of the APL.</p>	
<p>Summary of the likely impacts:</p> <p>The Programme impacts on the forests are likely to be net positive, given namely to the support for development and implementation of the Forest management plan. The forest inventory and management plan will support sustainable use of forest resources and ensure non-productive functions and ecological services provided by the forests to continue.</p>			

Issue: Waste management			
Results	Likely impacts	Comments and notes	Mitigation measures

<p>1.1.1 Tourism infrastructure is enhanced</p>	<p>-1/0, direct/indirect, long-term/ local/regional</p>	<p>Development of hiking trails and supporting infrastructure will increase human presence in the currently scarcely populated areas. Among the potential direct negative local impacts can be tossing of wastes along the tourist trails as well as illegal deposition of tourism-generated wastes (in the vicinity of guesthouses and other tourism facilities).</p> <p>In general the increased tourism will likely cause increase in household/municipal solid waste volumes. The presence of tourists and supporting services expansion is typically associated with increase in generation of packaging wastes, single-use items, food leftovers and other specific waste streams. which will put pressure on the existing solid waste collection and management system (local and regional).</p>	<p>Waste dumping prevention instructions shall be communicated to the tourists (e.g. warning signs on the marked trails, tourism information materials etc.)</p> <p>Supervision of the trails and related campsites shall be ensured, and any tossed wastes removed to prevent further accumulation.</p>
<p>1.1.2 The offer of tourism services is enhanced"</p>	<p>-1/0, direct/indirect, long-term/ local/regional</p>	<p>Same as above</p> <p>In general the increased tourism will likely cause increase in household/municipal solid waste volumes.</p> <p>The tourism-related wastes generation will likely increase along with the capacity and occupancy of guesthouses and campsites within the PL.</p>	<p>Same as above</p> <p>The support awarded to guesthouses shall include condition for ensuring sound household waste management (e.g. utilizing municipal waste collection system instead of unauthorized depositing locally).</p>

1.1.3 More tourists visit the region	-1/0 direct/indirect, long-term/ local and regional	<p>In general, the overall increase in tourism is associated with the additional waste generation within the PL area.</p> <p>On the other hand, the specific planned activities such as <i>Providing courses for local guides to acquire appropriate knowledge and skills</i>, and <i>Strengthening of the local culture and traditions and presenting them to national and international tourists</i> have a potential for positive impact through raising awareness about the natural values and nature conservation objectives and need for a sound waste management within the APL among the local population as well as incoming tourists.</p>	Ensuring information about the waste minimization and required sound waste management practices shall be included in the all awareness rising and promotion activities related to the tourism development.
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects on the waste management are expected	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects on the waste management are expected	

1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects on the waste management are expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects on the waste management are expected	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects on the forests are expected.	
2.1.1. The knowledge of the local population about their region is deepened	0/+1 indirect local	Improved awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the waste management, and increase motivation of local inhabitants to participate in the waste management system and adopt sound waste handling practices.	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects on the waste management are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects on the waste management are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>+1 indirect, local/regional</p>	<p>Environmental education will have indirect positive effect on the waste management, and increase motivation of local inhabitants to participate in the waste management system and adopt sound household waste handling practices.</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects on the waste management are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects on the waste management are expected	
2.2.3. A basic social assistance and care is provided	0	No effects on the waste management are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0/+1 indirect, regional	The development of the Aragvi Protected Landscape Management Plan can potentially contribute to the systematic monitoring and addressing waste management problems within the APL. The expected effects are positive, though indirect, and their scope will depend on the successful implementation of the Plan.	
3.1.2 Methodological materials are created	0/+1 indirect, regional	Similar as above.	

		<p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The monitoring of the waste management problems (namely those associated with tourism activities and outside of the urban areas) are of considerable importance for the successful implementation of the APL objectives.</p>	
<p>3.1.3 Nature and landscape conservation capacities in protected areas are strengthened</p>	<p>0/+1 indirect, regional</p>	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
<p>3.1.4 A Local Action Group is established and functioning</p>	<p>0</p>	<p>No effects on the waste management are expected</p>	
<p>3.1.5. Introduction and operations of sustainable forest management of the</p>	<p>0</p>	<p>No effects on the waste management are expected</p>	

Aragvi Protected Landscape"			
<p>Summary of the likely impacts:</p> <p>The Programme is not expected to have significant impact on the waste management in the APL.</p> <p>The tourism-related interventions aim at increase in number of visitors, which in turn is likely to generate increase in municipal waste volume, which will put additional pressure on the existing limited waste collection and disposal system. Considering the limited scale of the programme, the size of the APL territory, and the relative small potential increase in number of incoming tourists (in comparison with more attractive regions in Georgia), the potential negative impact will likely be small, nevertheless it can create local waste management problems (e.g. accumulation of wastes at non-authorized dumpsites) in the vicinity of guesthouses, and campsites.</p> <p>The educational and awareness rising components of the Programme can on the other hand have positive effect in terms of improving effectiveness of the waste management by motivating people to participate in the waste collection and safe disposal system provided by the Dusheti municipality as well as improving individual household waste handling practices.</p> <p>The development of the Aragvi Protected Landscape Management Plan can potentially contribute to the systematic monitoring and addressing waste management problems within the APL. The expected effects are positive, though indirect, and their scope will depend on the successful implementation of the Plan.</p>			

Issue: Water			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	<i>No consequences for the water is expected</i>	
1.1.2 The offer of tourism services is enhanced"	-1/0	<p>Increased tourists' presence and related accommodation capacities development will likely increase pressure on water resources.</p> <p>The tourism-related water consumption increase is not likely to pose a significant problem (the water resources in most of the PL are abundant).</p> <p>Wastewater generated by accommodation and other tourism-related facilities can however have a negative impact on adjacent water resources and surface waters in general. The wastewater treatment is non-existent in the area at the moment and most households do not have even basic sewage collection. Increase in wastewater volume due to setting up new guesthouses or expanding accommodation capacities of the existing ones without any wastewater management thus can have potentially negative</p>	Ensure basic sound wastewater handling practices are included in a project design for any guesthouse or similar facility development.

		impacts. Considering the scale of the planned intervention, such negative impact is not likely to be significant.	
1.1.3 More tourists visit the region	-1/0	<p>Same as above</p> <p>Increased tourists' presence and related accommodation capacities development will likely increase pressure on water resources.</p> <p>On the other hand, the specific planned activities such as <i>Providing courses for local guides to acquire appropriate knowledge and skills</i>, and <i>Strengthening of the local culture and traditions and presenting them to national and international tourists</i> have a potential for positive impact through raising awareness about the water conservation and wastewater management options within the APL among the local population as well as incoming tourists.</p>	Ensure basic sound water resources conservation and sound wastewater handling practices are included in the all awareness rising and promotion activities related to the tourism development.
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient		<p>No significant effects are expected</p> <p>The Programme support is not intended to increase the overall herd size in the APL, which is significantly lower compared to the historical number of cattle supported by the area. I.e. the risk of exacerbation of the existing</p>	

		erosion of grazing areas with the impacts on the surface water quality, or increase of direct impacts on waster due to increased volumes of manure etc. is negligible.	
1.2.2. Grass cutting, packing and transport are more efficient	0	No noticeable effects on the water (including surface runoff) are expected	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects on the water resources or water quality are expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects on the water resources or water quality are expected	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects on the water resources or water quality are expected	

2.1.1. The knowledge of the local population about their region is deepened	0	No effects on the water resources or water quality are expected	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects on the water resources or water quality are expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects on the water resources or water quality are expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate	+1 indirect, local/regional	Environmental education will have indirect positive effect on the water resources protection, and increase motivation of local inhabitants minimize water pollution.	

change and waste reduction is enhanced			
2.2.1. The education and skills of medical personnel are improved	0	No effects on the water resources or water quality are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects on the water resources or water quality are expected	
2.2.3. A basic social assistance and care is provided	0	No effects on the water resources or water quality are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	+1/+2 indirect, regional	The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of natural values including water ecosystems within the concerned area. The expected effects for the protection of waters are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan throughout the whole concerned watersheds. The preservation of the diverse	

		<p>landscape with stable land-use patterns with high proportion of forest and other types of vegetation cover are important factors for water quality maintenance as well as balanced runoff.</p>	
<p>3.1.2 Methodological materials are created</p>	<p>+1/+2 indirect, regional</p>	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The successful implementation of the APL nature protection objectives will have positive impact on the ecological status of the waters, and watershed-wide water regime.</p>	
<p>3.1.3 Nature and landscape conservation capacities in protected areas are strengthened</p>	<p>+1/+2 indirect, regional</p>	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	

3.1.4 A Local Action Group is established and functioning	0	No effects on the forests are expected.	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	+2 indirect, regional	<p>Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.</p> <p>The Forest Management Plan implementation will have potentially positive effects in terms of ensuring sustainable management respecting the nature and landscape conservation objectives of the APL, the maintenance of high proportion of the ecologically mature forest cover will have positive effects in terms of balanced water regime and water quality.</p>	
<p>Summary of the likely impacts:</p> <p>The Programme is not expected to have significant impact on the water resources and water quality in the APL.</p> <p>The tourism-related interventions aim at increase in number of visitors, which in turn is likely to increase demand for water for human use as well as volume of generated waste waters, which will put additional pressure on the water quality in the local streams, as well as underground waters. Considering the limited scale of the programme, the size of the APL territory, and the relative small potential increase in number of incoming tourists (in comparison with more attractive regions in</p>			

Georgia), the potential negative impact will likely be small, nevertheless it can create local water pollution problems (e.g. contamination of local springs or downstream sections of a stream) in the vicinity of guesthouses, and campsites. The Programme support for the installing wastewater handling equipment (e.g. septic tanks) in the guesthouses will likely to have only limited positive effect, as the whole APL territory lacks any wastewater treatment infrastructure.

The educational and awareness rising components of the Programme can on the other hand have positive effect in terms of improving effectiveness of the water resources and wastewater management by motivating people to improve individual household water use and wastewater handling practices.

The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of natural values including water ecosystems within the concerned area. The expected effects for the protection of waters are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan throughout the whole concerned watersheds. The preservation of the diverse landscape with stable land-use patterns with high proportion of forest and other types of vegetation cover are important factors for water quality maintenance as well as balanced runoff.

Issue: Energy supply			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No effects expected	

1.1.2 The offer of tourism services is enhanced"	0	No effects expected	
1.1.3 More tourists visit the region	0	No effects expected	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects expected	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects expected	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects expected	
1.2.4. Cooperation among farmers in	0	No effects expected	

production and marketing is enhanced			
1.2.5. Knowledge and skills of local farmers are improved	0	No effects expected	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects expected	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-	0	No effects expected	

based violence is enhanced			
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0/+1	Environmental education will have indirect positive effect on the energy conservation and increase motivation of local inhabitants to adopt environmentally sound alternative energy sources.	
2.2.1. The education and skills of medical personnel are improved	0	No effects expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects expected	
2.2.3. A basic social assistance and care is provided	0	No effects expected	

<p>3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved</p>	<p>0</p>	<p>No effects expected</p> <p>The APL Management Plan outlines principles for allowing certain types of developments including small-scale hydropower facilities. Project-level evaluation has to be carried out for any such project to establish potential impacts and compliance with the APL conservation objective. Large hydropower as well as . Wind-energy installations on the other hand are deemed inconsistent with the APL Management Plan objectives.</p>	
<p>3.1.2 Methodological materials are created</p>	<p>0</p>	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The successful implementation of the APL nature and landscape protection objectives means limitations for the development of the energy infrastructure within the APL</p>	
<p>3.1.3 Nature and landscape conservation capacities in protected areas are strengthened</p>	<p>0</p>	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL</p>	

		Management plan and perform its functions in line with its legal status.	
3.1.4 A Local Action Group is established and functioning	0	<i>No effects expected</i>	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	<p><i>No effects expected</i></p> <p><i>The implementation of the systematic sustainable forest management may have certain impact on the discussion about the availability of the firewood for local inhabitants and different measures in this respect are under consideration. The National Forestry Authority is the key decision-maker in this context, and the Programme-supported activities can take place only within the limits set by the legislation and guidance provided by the NFA.</i></p>	
<p>Summary of the likely impacts:</p> <p>The Programme is not expected to have a significant impact on the energy supply in the APL. On individual basis, projects supported by the Programme can contain energy-related components such as installation of small solar panels etc. or energy conservation measures, and the Programme thus can generate certain small</p>			

positive effect, even though the overall deficiency of the energy supply, which constitutes one of the systemic barriers for the development of the remote communities cannot be addressed by the Programme alone.

Issue: Landscape protection			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	-1/0, direct/indirect, long-term/ local	Development of hiking trails and supporting infrastructure will increase human presence is not likely to generate significant impacts on the landscape. Tourists-caused trampling on sensitive grasslands and associated erosion along the tourist pathways might result in creation of major erosion scars visible from distance and thus negatively affecting the visual features of the PL. Such development is however considered as an unlikely worst-case scenario.	<p>Consultation of the location of the trails and other physical elements of the tourism infrastructure with the PL authority.</p> <p>Marking trails preferentially on already existing roads and pathways (avoid creation of new pathways on virgin lands).</p>
1.1.2 The offer of tourism services is enhanced"	-1/0, direct/indirect, long-term/ local	Location of tourism and accommodation infrastructure in visually exposed sites can affect the landscape protected value.	Consultation of the location of Guesthouses and other physical elements of the tourism infrastructure to be located outside of the urban area (outside of villages) with the PL authority.

			Regulations regarding sustainable building standards (local architecture, size of buildings, etc.) shall be made part of the selection criteria for the grants.
1.1.3 More tourists visit the region	0/+1	The specific planned activities such as Providing courses for local guides to acquire appropriate knowledge and skills, and Strengthening of the local culture and traditions and presenting them to national and international tourists have a potential for positive impact through raising awareness about the PL values and landscape protection in the APL among the local population as well as incoming tourists.	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0/+1 indirect/local and regional	<p>The programme component supports re-introduction of traditional cattle races, up-to-date methods of cattle crossbreeding or purchase of modern equipment for cattle/sheep breeding and bee keeping.</p> <p>That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable meadows and alpine grasslands which are the constituting elements of the unique</p>	

		landscape mosaic associated with the traditional land use patterns in the APL	
1.2.2. Grass cutting, packing and transport are more efficient	+1, direct, local and regional	The Programme intervention includes support for acquiring machinery for grass cutting, packing and transport that is suitable for steep slopes. That will contribute to the preserving of the existing animal husbandry practices including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects expected	

<p>1.2.5. Knowledge and skills of local farmers are improved</p>	<p>0/+1 indirect/local and regional</p>	<p>The programme component supports agriculture-related training activities.</p> <p>That will contribute to the preserving of the agriculture activities including grazing and hay-making, which are important for the maintaining of the ecologically valuable alpine grasslands and the unique landscape mosaic associated with the traditional land use patterns in the APL.</p> <p>The programme indicates “sustainable management of meadows (avoiding overgrazing, erosion, etc.)”, and “how to adapt to climate change” as one of the key topics the support will focus on.</p>	
<p>2.1.1. The knowledge of the local population about their region is deepened</p>	<p>0/+1 indirect local, regional</p>	<p>Improved awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the protection of landscape, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.</p>	

2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	+1	Environmental education will have indirect positive effect on the landscape protection, and increase motivation of local inhabitants to participate in the effort to protect the APL and avoid activities/projects with negative impacts on the landscape features.	

2.2.1. The education and skills of medical personnel are improved	0	No effects expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects expected	
2.2.3. A basic social assistance and care is provided	0	No effects expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	+1/+2 indirect, regional	The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of valuable landscape within the concerned area, including the landuse pattern of valuable mountain meadows and alpine grasslands, and forests. The management plan contains landscape protection objectives and measures for their achievement. The expected effects are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan.	

3.1.2 Methodological materials are created	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The biodiversity inventory and monitoring established within this Programme intervention is particularly important for the successful implementation of the APL landscape protection objectives.</p>	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	+1/+2 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
3.1.4 A Local Action Group is established and functioning	0	No effects on the landscape are expected	

<p>3.1.5. Introduction and operations of sustainable forest management of the "Aragvi Protected Landscape"</p>	<p>0/+1 indirect, regional</p>	<p>Development and implementation of the sustainable forest management is supported by the Programme including development of the Forest Inventory, and subsequently the Forest Management Plan.</p> <p>Forest management plan can have potentially positive effects in terms of ensuring sustainable management respecting the landscape protection objectives of the APL, including protection of the mountain meadows and grasslands from spontaneous forest expansion.</p>	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have net positive impact on the Landscape protection.</p> <p>The Programme interventions focusing on the support of the local agriculture can have positive effect in terms of preserving the existence of the biodiversity-rich mountain meadows and grasslands, which are dependent on continuation of the traditional management (hay-making and pasturing), and which are important for the preservation of the unique landscape mosaic associated with the traditional land use patterns in the APL. The same positive effect, i.e. preserving the balanced landscape pattern, is expected from the interventions within the Programme supporting the development of the Forestry Management Plan.</p> <p>The tourism-related interventions are associated with certain risks stemming from the potential development of tourism infrastructure or from the erosion marks along the tourist pathways in visually prominent locations. Considering the relative small potential increase in number of incoming tourists (in comparison with more</p>			

attractive regions in Georgia), and limited resources within the Programme allocated for the development of the tourism infrastructure, the potential negative impacts (if any) on the landscape visual value is likely to be insignificant.

The development of the Aragvi Protected Landscape Management Plan is clearly single most important step towards ensuring protection of valuable landscape within the concerned area, including the landuse pattern of valuable mountain meadows and alpine grasslands, and forests. The management plan contains landscape protection objectives and measures for their achievement. The expected effects are potentially significantly positive, though indirect, and their scope will depend on the successful implementation of the Plan.

Issue: Pollution and other environmental degradation

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No specific impacts expected Marking touristic trails and other related activities are not likely to generate noticeable impacts in terms of pollution or environmental degradation (in addition to issues covered elsewhere in this assessment)	
1.1.2 The offer of tourism services is enhanced"	0	No effects expected	Local construction materials obtained from the authorized sources shall be used

1.1.3 More tourists visit the region	0	<p>No specific impacts expected</p> <p>The specific planned activities focus on providing courses for local tourist guides, enhancing presentation of the APL and support for local culture and traditions, i.e. activities without direct effects related to the extraction of natural resources or generating pollution (such effects generally associated with tourism are covered in other sections of this assessment).</p>	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	<p>No significant effects are expected</p> <p>The Programme support is not intended to increase the overall herd size in the APL, which is significantly lower compared to the historical number of cattle supported by the area.</p>	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects expected	
1.2.3. Production of traditional and organic	0	No effects expected	

agricultural local products is enhanced			
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects expected	
1.2.5. Knowledge and skills of local farmers are improved	0/+1 indirect/local and regional	<p>The programme component supports agriculture-related training activities.</p> <p>The programme indicates “sustainable management of meadows (avoiding overgrazing, erosion, etc.)”, “organic farming” and “ how to adapt to climate change” and other related topics the support will focus on, which can have certain indirect positive impact in terms of e.g. limit the agriculture-related pollution and depletion of resources.</p>	
2.1.1. The knowledge of the local population about their region is deepened	0/+1 indirect local, regional	Improved awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the protection of the local natural resources, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.	

2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	+1 indirect, local/regional	Environmental education will have indirect positive effect on the environmental awareness of the local communities in general, and increase motivation of local inhabitants to avoid pollution and degradation of the natural resources.	

2.2.1. The education and skills of medical personnel are improved	0	No effects expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects expected	
2.2.3. A basic social assistance and care is provided	0	No effects expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0/+1 indirect, regional	The development of the Aragvi Protected Landscape Management Plan can potentially contribute to the systematic monitoring and addressing natural resources management problems within the APL. The expected effects are positive, though indirect, and their scope will depend on the successful implementation of the Plan.	
3.1.2 Methodological materials are created	0/+1 indirect, regional	Similar as above.	

		<p>The Programme will assist establishment of the APL administration and support the implementation of its basic functions. The monitoring of the natural resources management and pollution problems are of considerable importance for the successful implementation of the APL objectives.</p>	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0/+1 indirect, regional	<p>Similar as above.</p> <p>The Programme will assist the capacity building of the APL administration to ensure that it can adopt full responsibility for the implementation of the APL Management plan and perform its functions in line with its legal status.</p>	
3.1.4 A Local Action Group is established and functioning	0	No effects on the natural resources are expected	
3.1.5. Introduction and operations of sustainable forest management of the	0	No effects on the non-forest resources are expected	

Aragvi Protected Landscape"			
<p>Summary of the likely impacts:</p> <p>The Programme is not expected to have a significant impact in terms of the pollution and other environmental degradation in the APL. On individual basis, projects supported by the Programme can require extraction of natural resources, namely construction materials (i.e. local timber, gravel) with inevitable local environmental impacts. Given the nature and scale of the projects supported within the Programme, such impacts are likely to be very small, and further effectively minimized through the project selection and preparation process.</p> <p>Programme-related improvement in awareness and knowledge about the unique nature and cultural values related to the APL territory can have indirect positive impact on the protection of the local natural resources, and increase motivation of local inhabitants in participation in the effort related to the nature conservation and landscape protection.</p> <p>The development of the Aragvi Protected Landscape Management Plan can potentially contribute to the systematic monitoring and addressing natural resources management problems within the APL. The expected effects are positive, though indirect, and their scope will depend on the successful implementation of the Plan.</p>			

6.2.2 Likely impacts on the key gender issues

Issue: Economic activities of women and men			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+1, indirect, long-term, local and regional	The development of tourist infrastructure is closely linked to the development of services for tourists and indirectly to the development of job opportunities for local men and women.	
1.1.2 The offer of tourism services is enhanced"	+2/-1, direct, long-term, local and regional	<p>The development of services for tourists has great potential for the development of employment opportunities for both men and women. However, it depends very much on how this potential is handled in practice. There is a risk that the programme will provide unequal financial support to local men and women.</p> <p>In order to improve services for tourists, the Programme directly supports applicants who want to establish and equip a guesthouse, café or restaurant. Successful applicants for this type of tourist service have so far been heavily male dominated. Although women are also running guesthouses and it can be assumed that more</p>	<p>Consultations on project writing should be provided not only in Chinti, which is far away for many people, but also on a regular basis in the different localities.</p> <p>Special care should be taken during the consultation process to ensure that there are no barriers for men or women in completing the application.</p>

		of them might be interested in running guesthouses. In this context, it seems necessary to intensify support in writing project applications.	
1.1.3 More tourists visit the region	+1, indirect, long-term, local and regional	The increase in the number of tourists brings with it an increased need for services and leisure activities for tourists, which indirectly means the expansion of employment opportunities for local men and women and the development of their economic activity.	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+2/-1, direct, long-term, local and regional	<p>Promoting the development of sheep breeding and beekeeping has the potential to develop the economic activity of local men and women. However, it depends very much on how this potential is handled in practice. There is a risk that the programme will provide unequal financial support to local men and women.</p> <p>Successful applicants in this field have so far been heavily male dominated. Although women also keep bees and participate in cattle/sheep breeding.</p>	<p>Consultations on project writing should be provided not only in Chinti, which is far away for many people, but also on a regular basis in the different localities.</p> <p>Special care should be taken during the consultation process to ensure that there are no barriers for men or women in completing the application.</p>

1.2.2. Grass cutting, packing and transport are more efficient	+1, indirect, local and regional	Promoting efficient hay production makes it easier for local men and women to work and can have an indirect positive economic impact.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+2/-1, long-term, local and regional	Support to produce traditional and organic agricultural products has potential to develop the economic activity of local men and women. However, it depends very much on how this potential is handled in practice. There is a risk that the programme will provide unequal financial support to local men and women.	Same above.
1.2.4. Cooperation among farmers in production and marketing is enhanced	+1, long-term, local and regional	Support to agricultural cooperatives has the potential to develop the economic activity of local men and women, but no specific activity has been developed under the Programme in this respect.	
1.2.5. Knowledge and skills of local farmers are improved	+1, indirect/direct, local and regional	<p>Agriculture related trainings can also have positive indirect effects on the economic activity of men and women.</p> <p>The field survey revealed that farmers need to learn how to advertise their products. Expanding the courses on offer to include marketing and advertising of products would be welcomed by locals.</p>	

2.1.1. The knowledge of the local population about their region is deepened	0	No significant impact on the economic activities of men and women is expected.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No significant impact on the economic activities of men and women is expected.	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	+2, indirect, long-term, local and regional	Raising awareness of women's empowerment and the prevention of domestic violence has an essential indirect influence on the development of women's economic independence.	

2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0	No significant impact on the economic activities of men and women is expected.	
2.2.1. The education and skills of medical personnel are improved	0	<p>No significant impact on the economic activities of men and women is expected.</p> <p>The field survey revealed that some local men and women would be interested in first aid courses. These first aid courses can be useful in everyday life due to difficult transport accessibility for the emergency services and in context of tourism development.</p>	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No significant impact on the economic activities of men and women is expected.	

2.2.3. A basic social assistance and care is provided	+2, direct, long-term, local and regional	<p>The field survey revealed that supporting the development of a network of publicly available childcare for children under 6 years of age is important for the arrival of young families in Aragvi. The foundation of such a network will create new job opportunities with regular source of income, especially for women who, as the fieldwork revealed, mainly work in nurseries. Therefore, the development of a network of publicly available childcare would be also a matter of supporting women's employment.</p> <p>The creation of a day centre for people with disabilities, which is lacking in Aragvi, is also something to consider.</p>	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No significant impact on the economic activities of men and women is expected.	
3.1.2 Methodological materials are created	0	No significant impact on the economic activities of men and women is expected.	
3.1.3 Nature and landscape conservation	0	No significant impact on the economic activities of men and women is expected.	

capacities in protected areas are strengthened			
3.1.4 A Local Action Group is established and functioning	+1, indirect, long-term, local and regional	LAG activities can have an indirect effect on the economic activities of local men and women.	
3.1.5. Introduction and operations of sustainable forest management of the "Aragvi Protected Landscape"	0	No significant impact on the economic activities of men and women is expected.	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have a significant positive impact on the economic activities of local women and men. The development of services for tourists represents a great potential for the development of employment opportunities for both men and women. However, there is a risk that the Programme will not financially support local men and women equally. Thus far the successful applicants have been heavily male dominated, not only in the case of tourist services, but also in the case of sheep breeding, beekeeping and the production of traditional organic local products.</p> <p>The programme can contribute significantly to women's economic independence not only through new job opportunities, but also through raising awareness of women's empowerment and creating a network of publicly available childcare services for children under 6 years of age.</p>			

The programme can have a significant impact on reducing poverty among local women and men, but it will depend on whether it manages to support women and men in a balanced way.

Issue: Domestic violence			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No significant effect on domestic violence is expected.	
1.1.2 The offer of tourism services is enhanced"	+ 2, indirect, long-term, local and regional	The development of services for tourists has great potential for the development of employment opportunities for both men and women which can have an indirect positive impact on reducing the incidents of domestic violence.	
1.1.3 More tourists visit the region	+ 1, indirect, long-term, local and regional	Increasing the number of tourists indirectly effects the expansion of employment opportunities for local men and women which can have an indirect positive impact on reducing the incidence of domestic violence.	

1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+ 2, indirect, long-term, local and regional	Promoting the development of sheep breeding and beekeeping has the potential to develop the economic activity of local men and women which can have an indirect positive impact on reducing the incidence of domestic violence.	
1.2.2. Grass cutting, packing and transport are more efficient	0	No significant effect on domestic violence is expected.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+ 2, indirect, long-term, local and regional	Support to produce traditional and organic agricultural products has potential to develop the economic activity of local men and women which can have an indirect positive impact on reducing the incidence of domestic violence.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+ 1, indirect, long-term, local and regional	Support to agricultural cooperatives has the potential to develop the economic activity of local men and women which can have an indirect positive impact on reducing the incidence of domestic violence.	
1.2.5. Knowledge and skills of local farmers are improved	0	No significant effect on domestic violence is expected.	

<p>2.1.1. The knowledge of the local population about their region is deepened</p>	<p>0</p>	<p>No significant effect on domestic violence is expected.</p>	
<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No significant effect on domestic violence is expected.</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>+2/0, direct, long-term, local and regional</p>	<p>Raising awareness of women’s empowerment and the prevention of gender-based violence has the potential to have a crucial direct positive impact on reducing the incidence of domestic violence. In this context it is essential, how the prevention of domestic violence is conceived and communicated to local men and women.</p> <p>The field survey showed that local people have an ambivalent approach to dealing with domestic violence and often do not know how to deal with domestic violence, either in the case of their own family or</p>	<p>Create a brief guide (electronic) on how to address domestic violence and other forms of gender-based violence for survivors.</p> <p>Create a brief guide (electronic) on how to address domestic violence and other forms of gender-based violence for family members and other close people.</p> <p>Develop a suitable effective strategy for dissemination of both guides to the local population.</p>

		neighbours. A guide on how to address domestic violence can significantly help to change their approach.	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0	No significant effect on domestic violence is expected.	
2.2.1. The education and skills of medical personnel are improved	+1, direct, long-term, local and regional	If the training of health personnel will also focus on health care for survivors of domestic violence it can have a positive impact on their health status.	
2.2.2. The availability of essential means for providing medical care is enhanced	+1, direct, long-term, local and regional	Promoting the availability of essential means for providing medical care can contribute to improving the quality of health care for survivors.	
2.2.3. A basic social assistance and care is provided	+1, direct, long-term, local and regional	Where social workers are specially trained to assist in dealing with domestic violence, they can significantly help both survivors and their children.	

3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No significant effect on domestic violence is expected.	
3.1.2 Methodological materials are created	0	No significant effect on domestic violence is expected.	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No significant effect on domestic violence is expected.	
3.1.4 A Local Action Group is established and functioning	+2, direct, long-term, local and regional	The LAG has the potential to make a significant contribution to the prevention of domestic violence and raise awareness of how to address domestic violence.	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No significant effect on domestic violence is expected.	

Summary of the likely impacts:

The programme can have a significant indirect positive impact on reducing the incidence of domestic violence by creating new employment opportunities for local men and women. The Programme can also have a crucial direct positive impact on strengthening the awareness of how to address domestic violence in local men and women, which can contribute significantly to both the prevention and reduction of domestic violence. In this context, it is crucial to find an appropriate way to communicate the issue of domestic violence with local men and women. Considering the ambivalent attitude of local people towards dealing with domestic violence, the creation of a guide on how to address domestic violence can be one of the appropriate ways. LAG can play a significant role in preventing domestic violence and disseminating a guide for both survivors and for family members and other close people.

Issue: Low participation of women in local decision making

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No significant effect on women's participation in local decision-making.	
1.1.2 The offer of tourism services is enhanced"	0	No significant effect on women's participation in local decision-making.	

1.1.3 More tourists visit the region	0	No significant effect on women's participation in local decision-making.	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No significant effect on women's participation in local decision-making.	
1.2.2. Grass cutting, packing and transport are more efficient	0	No significant effect on women's participation in local decision-making.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No significant effect on women's participation in local decision-making.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+1/0, direct, long-term, local and regional	If women farmers are included in cooperation among farmers in production and marketing decisions, this cooperation can work as an example of good practice of women's involvement in decision-making.	Women farmers need to be involved in cooperation among farmers in production and marketing decisions.

1.2.5. Knowledge and skills of local farmers are improved	0	No significant effect on women's participation in local decision-making.	
2.1.1. The knowledge of the local population about their region is deepened	0	No significant effect on women's participation in local decision-making.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No significant effect on women's participation in local decision-making.	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	+2, direct, long-term, local and regional	Raising awareness of women's empowerment and challenging stereotypes and prejudices against women in decision-making positions are essential for involving local women in decision-making. It is very important that support for women's involvement in decision-making also comes from those in decision-making positions. The involvement of the Mayor of Dusheti can work very	

		well in this regard. She can encourage women to apply for leadership positions.	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0	No significant effect on women's participation in local decision-making.	
2.2.1. The education and skills of medical personnel are improved	0	No significant effect on women's participation in local decision-making.	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No significant effect on women's participation in local decision-making.	

2.2.3. A basic social assistance and care is provided	+2/0, indirect, long-term, local and regional	Creating a publicly available childcare network for children under 6 years of age can significantly help women with young children to become involved in decision-making and apply for leadership positions.	Create a publicly available childcare network for children under 6 years of age.
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No significant effect on women's participation in local decision-making.	
3.1.2 Methodological materials are created	0	No significant effect on women's participation in local decision-making.	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No significant effect on women's participation in local decision-making.	
3.1.4 A Local Action Group is established and functioning	+2, direct, long-term, local and regional	LAG can be an example of good practice in involving local women in decision-making. It can demonstrate the benefits of involving women in decision-making and can encourage local women to apply for leadership positions.	

3.1.5. Introduction and operations of sustainable forest management of the "Aragvi Protected Landscape"	0	No significant effect on women's participation in local decision-making.	
<p>Summary of the likely impacts:</p> <p>The Programme can contribute to increasing the involvement of local women in decision-making. Considering the persistent stereotypes and prejudices against women's involvement in decision-making, it is very important that support for women's involvement in decision-making also came from those already in decision-making positions (for example the Mayor of Dusheti). A positive impact on women's involvement in decision-making and in applying for decision-making positions can be made by creating a publicly available childcare network for children under 6 years of age.</p> <p>The work of the LAG can be an example of good practice in involving women in decision making and can have a positive impact on raising awareness of the benefits of involving women in decision making. Cooperation among farmers can also act as an example of good practice if women farmers are included in this cooperation in making production and marketing decisions</p>			

6.2.3 Likely impacts on the key socio-economic issues

Issue: Depopulation of the region and a high share of elderly and retired in the population			
Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+1 indirect, long-term, regional	Development of the infrastructure will increase human presence in the currently scarcely populated areas. Direct positive impacts will involve more business opportunities for the local entrepreneurs and more related jobs opportunities.	
1.1.2 The offer of tourism services is enhanced"	+1 indirect, long-term, regional	Same as above.	
1.1.3 More tourists visit the region	+1 direct, long-term, regional	Same as above.	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+1 direct, long-term, regional	Support of more efficient agriculture practice will lead to higher production and therefore higher income. This directly supports local people to stay in the area, since more than half of them reported, that their main source of income in 2021 was agricultural production.	

1.2.2. Grass cutting, packing and transport are more efficient	+1 direct, long-term, regional	Same as above.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+1 direct, long-term, regional	Same as above.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+1 indirect, long-term, local	Same as above. Moreover, the cooperation and marketing practice in the area is currently very low.	
1.2.5. Knowledge and skills of local farmers are improved	+1 indirect, long-term, regional	Same as above. The knowledge and skills of local farmers are outdated due to the historical reasons and lack of formal education in agriculture. Moreover, agriculture currently requires new approaches and there is need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion).	

2.1.1. The knowledge of the local population about their region is deepened	+1 indirect, short-term, regional	Better understanding of the region's specifics and potential could motivate the community to start new businesses or get more involved in the local decision making.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects regarding the issue are expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects regarding the issue are expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate	0	No effects regarding the issue are expected	

change and waste reduction is enhanced			
2.2.1. The education and skills of medical personnel are improved	-1/+1 indirect, short-term, regional	Depending on the character of the provided education, medical personnel can be motivated to provide better services in the area, but also to move out and use the new skills and education elsewhere.	Focus on the trainings useful in the local context and overall support of the medical personnel in line with their specific needs (e.g., working conditions)
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	+1 indirect, short-term, regional	Roughly a fifth of the respondents stated that a member of their family requires specific assistance or care due to age and/or disability. There is currently no formal assistance provided. Therefore, any additional support can help people to focus more on new sources of income and give them the opportunity to stay in the region permanently and in the same time provide for their families.	
3.1.1 Proposal of management plan of	0	No effects regarding the issue are expected	

the Aragvi Protected Landscape is approved			
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No effects regarding the issue are expected	
3.1.4 A Local Action Group is established and functioning	+1 indirect, short-term, regional	The project should encourage the participation of the local community and all its members equally. This could motivate more members of the community to be active in the local decision making, local business or in generally development of their region.	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	

Summary of the likely impacts:

The Programme is expected to have a positive impact on the APL de-population and significantly increasing average age. No major negative effects were identified.

The main push-factor of the overall and seasonal migration in the area is lack of job opportunities and low income. More business opportunities for the local entrepreneurs, related job opportunities and increased agricultural production could be important motivation for young people to stay in the area.

Support for social and healthcare assistance could improve the situation of the elderly in the region, but it is important also for the households with care responsibilities (elderly relatives, family members with disabilities, etc.).

Issue: Lack of job opportunities in the region

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+1 indirect, long-term, regional	Development of the infrastructure will increase human presence in the currently scarcely populated areas. Direct positive impacts will involve more business opportunities for the local entrepreneurs and more related jobs opportunities.	

1.1.2 The offer of tourism services is enhanced"	+1 indirect, long-term, regional	Same as above.	
1.1.3 More tourists visit the region	+1 direct, long-term, regional	Same as above.	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+1 direct, long-term, regional	Support of more efficient agriculture practice will lead to higher production and therefore higher income. More than half of the local population reported, that their main source of income in 2021 was agricultural production. However, the current production is not sufficient and people need to combine multiple sources of income.	
1.2.2. Grass cutting, packing and transport are more efficient	+1 direct, long-term, regional	Same as above.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+1 direct, long-term, regional	Same as above. Moreover production with a higher added value could involve new employment opportunities (processing of the local production).	

1.2.4. Cooperation among farmers in production and marketing is enhanced	+1 indirect, long-term, local	<p>Same as above.</p> <p>Moreover, the cooperation and marketing practice in the area is currently very low.</p>	
1.2.5. Knowledge and skills of local farmers are improved	+1 indirect, long-term, regional	<p>Same as above.</p> <p>The knowledge and skills of local farmers are outdated due to the historical reasons and lack of formal education in agriculture. Moreover, agriculture currently requires new approaches and there is need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion).</p>	
2.1.1. The knowledge of the local population about their region is deepened	+1 indirect, short-term, regional	<p>Better understanding of the region's specifics and potential could motivate the community to start new businesses or get more involved in the local decision making.</p>	

2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects regarding the issue are expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects regarding the issue are expected	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0	No effects regarding the issue are expected	

2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	+1 direct, long-term, regional	Depending on the character of implemented activities, new system of social assistance could be a source of new job opportunities, especially for women, who tend to not stay in the area during the winter months. There is also high demand for such assistance. However, there is need for some sustainable long-term mechanism of financing the social assistance services.	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	

3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No effects regarding the issue are expected	
3.1.4 A Local Action Group is established and functioning	+1 indirect, short-term, regional	The project should encourage the participation of the local community and all its members equally. This could motivate more members of community to be active in the local decision making, local business or in generally development of their region, which would create more job opportunities.	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have a positive impact on the APL employment opportunities. No major negative effects were identified.</p>			

The main push-factor of the overall and seasonal migration in the area is lack of job opportunities and low income. The program directly supports new business opportunities, related jobs and increased agricultural production.

Support for social assistance could be a source of new job opportunities, especially for women, who tend to not stay in the area during the winter months. However, there is need for some sustainable long-term mechanism of financing the social assistance services

Issue: Low entrepreneurial activity in the region

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+1 indirect, long-term, regional	Development of the infrastructure will increase human presence in the currently scarcely populated areas. Direct positive impacts will involve more business opportunities for the local entrepreneurs and more related jobs opportunities.	
1.1.2 The offer of tourism services is enhanced"	+1 indirect, long-term, regional	Same as above.	
1.1.3 More tourists visit the region	+1 direct, long-term, regional	Same as above.	

1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+1 direct, long-term, regional	Support of more efficient agriculture practice will lead to higher production and therefore higher income. More than half of the local population reported, that their main source of income in 2021 was agricultural production. However, the current production is not sufficient and people need to combine multiple sources of income.	
1.2.2. Grass cutting, packing and transport are more efficient	+1 direct, long-term, regional	Same as above.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+1 direct, long-term, regional	Same as above. Moreover, production with a higher added value could involve new employment opportunities (processing of the local production).	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+1 indirect, long-term, local	Same as above. Moreover, the cooperation and marketing practice in the area is currently very low.	

1.2.5. Knowledge and skills of local farmers are improved	+1 indirect, long-term, regional	<p>Same as above.</p> <p>The knowledge and skills of local farmers are outdated due to the historical reasons and lack of formal education in agriculture. Moreover, agriculture currently requires new approaches and there is a need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion).</p>	
2.1.1. The knowledge of the local population about their region is deepened	+2 indirect, short-term, regional	Better understanding of the region's specifics and potential could motivate the community to start new businesses or get more involved in the local decision making.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects regarding the issue are expected	
2.1.3. The knowledge of the local people about the women empowerment and	+1 indirect, short-term, local	The activities could motivate local women to start their own businesses, get more independence and higher	

prevention of gender-based violence is enhanced		self-esteem. The group activities will also be a good opportunity for sharing new ideas and support.	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced	0	No effects regarding the issue are expected	
2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	0	No effects regarding the issue are expected	

3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No effects regarding the issue are expected	
3.1.4 A Local Action Group is established and functioning	+1 indirect, short-term, regional	The project should encourage the participation of the local community and all its members equally. This could motivate more members of the community to be active in the local decision making, local business or in generally development of their region.	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have a positive impact on the APL entrepreneurial activity. No major negative effects were identified.</p>			

The local population is hesitant when it comes to starting a new business. They reported a lack of financial resources and know-how. Moreover, some people living in the area or from the area have not yet legally registered their land. The Programme is addressing all these three issues. There is already an active system of sub-grants for the local businesses with focus on sustainable tourism and agriculture and the entrepreneurs can get access to complex support including the relevant training. The respective households are also encouraged to register their land and informed respectively to avoid any future problems regarding the land ownership (e.g., access to loans).

Issue: Non-existent processing capacities for local agricultural production (most significantly milk) limits income opportunities (mostly only self-subsistence farming)

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No effects regarding the issue are expected	
1.1.2 The offer of tourism services is enhanced"	0	No effects regarding the issue are expected	
1.1.3 More tourists visit the region	0	No effects regarding the issue are expected	

1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	+2 direct, long-term, regional	Support of more efficient agriculture practice will lead to higher production.	
1.2.2. Grass cutting, packing and transport are more efficient	+2 direct, long-term, regional	Same as above.	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+2 direct, long-term, regional	Same as above.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+2 direct, long-term, regional	Same as above. The cooperation and marketing practice in the area is currently very low.	
1.2.5. Knowledge and skills of local farmers are improved	+2 direct, long-term, regional	The knowledge and skills of local farmers are outdated due to the historical reasons and lack of formal education in agriculture. Moreover, agriculture currently requires new approaches and there is need for more	

		sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion).	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects regarding the issue are expected	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects regarding the issue are expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	0	No effects regarding the issue are expected	

<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>+1 indirect, long-term, regional</p>	<p>The knowledge of local people regarding the current environmental challenges is low. However, the population is already being affected. Agriculture currently requires new approaches and there is a need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion). Overall awareness can help to better understand new innovative practices of the farmers and motivate more local farmers to participate in the above listed agricultural activities.</p>	
<p>2.2.1. The education and skills of medical personnel are improved</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.2.2. The availability of essential means for providing medical care is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.2.3. A basic social assistance and care is provided</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	

3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	?	Proposal of management plan of the Aragvi Protected Landscape can have an effect on the agricultural practices in the region. However, it is not possible to say currently, what effect will be there.	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No effects regarding the issue are expected	
3.1.4 A Local Action Group is established and functioning	?	LAG can have an effect on the agricultural practices in the region. However, it is not possible to say currently, what effect will be there.	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	

Summary of the likely impacts:

The Programme is expected to have a significant positive impact on the local agricultural production, especially within the results 1.2.1-1.2.5. No major negative effects were identified. However, the effects of the Management plan of the Aragvi Protected Landscape and LAG on the agriculture should be assessed at the later stage of the Programme.

Issue: Under-developed tourism potential coupled with insufficient capital resources for investment by local households and their reservations regarding bank loans

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+2 direct, long-term, regional	Development of the infrastructure will increase human presence in the currently scarcely populated areas. Direct positive impacts will involve new tracks and repairs of small infrastructure (e.g., two bridges).	
1.1.2 The offer of tourism services is enhanced"	+2 direct, long-term, regional	Same as above.	
1.1.3 More tourists visit the region	+2 direct, long-term, regional	Same as above.	

1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects regarding the issue are expected	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects regarding the issue are expected	
1.2.3. Production of traditional and organic agricultural local products is enhanced	+1 indirect, long-term, regional	Production of traditional and organic agricultural local products can be directly sold to the tourists and therefore increase the attractiveness of the region.	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects regarding the issue are expected	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects regarding the issue are expected	

2.1.1. The knowledge of the local population about their region is deepened	+1 indirect, short-term, regional	Better understanding of the region's specifics and potential could motivate the community to start new businesses.	
2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded	0	No effects regarding the issue are expected	
2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced	+1 indirect, short-term, local	The activities could motivate local women to start their own businesses, get more independence and higher self-esteem. The group activities will be also good opportunity for sharing new ideas and support.	
2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate	0	No effects regarding the issue are expected	

change and waste reduction is enhanced			
2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	0	No effects regarding the issue are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	

3.1.3 Nature and landscape conservation capacities in protected areas are strengthened	0	No effects regarding the issue are expected	
3.1.4 A Local Action Group is established and functioning	0	No effects regarding the issue are expected	

Summary of the likely impacts:

The Programme is expected to have a significant positive impact on the APL tourism activity. No major negative effects were identified.

The local population is hesitant when it comes to starting a new business. Moreover, the infrastructure is not ready for a higher number of tourists. People reported lack of financial resources and know-how regarding entrepreneurship. There is already an active system of sub-grants for the local businesses with focus on sustainable tourism. Moreover, traditional and organic agricultural local products can be directly sold to the tourists and therefore increase the attractiveness of the region.

Issue: Insufficient transport connection of the region (poor road network and limited public transport)

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	+1 indirect, long-term, local	New trails and repairs of small infrastructure (e.g., two bridges) will have some positive effect on accessibility. However, the local community benefit will be limited.	
1.1.2 The offer of tourism services is enhanced"	0	No effects regarding the issue are expected	
1.1.3 More tourists visit the region	0	No effects regarding the issue are expected	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects regarding the issue are expected	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects regarding the issue are expected	

1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects regarding the issue are expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects regarding the issue are expected	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects regarding the issue are expected	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects regarding the issue are expected	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	0	No effects regarding the issue are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation	0	No effects regarding the issue are expected	

capacities in protected areas are strengthened			
3.1.4 A Local Action Group is established and functioning	0	No effects regarding the issue are expected	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	
<p>Summary of the likely impacts:</p> <p>The Programme is not reflecting the problem of accessibility of the region. There will be only minor positive effects regarding the development of the tourist infrastructure.</p>			

Issue: Low and declining access to quality fodder for livestock for winter season, leading to further de-population of the region (or increasing seasonality or the residence)

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No effects regarding the issue are expected	
1.1.2 The offer of tourism services is enhanced"	0	No effects regarding the issue are expected	
1.1.3 More tourists visit the region	0	No effects regarding the issue are expected	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects regarding the issue are expected	
1.2.2. Grass cutting, packing and transport are more efficient	+2 direct, long-term, regional	The result 1.2.2. is clearly linked to the above-mentioned issue. Depending on the implemented activities and participation of the local farmers, this could directly solve the current problem with lack of quality fodder for livestock.	

1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects regarding the issue are expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	+1 indirect, long-term, regional	The cooperation among the farmers in the area is currently very low. However, successful cooperation could contribute to the redistribution of the fodder for livestock during the winter season.	
1.2.5. Knowledge and skills of local farmers are improved	+2 direct, long-term, regional	The knowledge and skills of local farmers are outdated due to the historical reasons and lack of formal education in agriculture. Moreover, agriculture currently requires new approaches and there is need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion).	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects regarding the issue are expected	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>+1 indirect, long-term, regional</p>	<p>The knowledge of local people regarding the current environmental challenges is low. However, the population is already being affected. Agriculture currently requires new approaches and there is a need for more sustainable practices due to the climate changes and environmental risks in the region (e.g., erosion). Overall awareness can help to better understand new innovative practices of the farmers and motivate more local farmers to participate in the above listed agricultural activities.</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	0	No effects regarding the issue are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation	0	No effects regarding the issue are expected	

capacities in protected areas are strengthened			
3.1.4 A Local Action Group is established and functioning	0	No effects regarding the issue are expected	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	
<p>Summary of the likely impacts:</p> <p>The Programme is expected to have significant positive impact on the local agricultural production with focus on quality fodder for livestock for winter season. The result 1.2.2. is clearly linked to the issue. Depending on the implemented activities and participation of the local farmers, the Programme could contribute significantly to the solution of this issue.</p>			

Issue: Low accessibility of the public services

Results	Likely impacts	Comments and notes	Mitigation measures
1.1.1 Tourism infrastructure is enhanced	0	No effects regarding the issue are expected	
1.1.2 The offer of tourism services is enhanced"	0	No effects regarding the issue are expected	
1.1.3 More tourists visit the region	0	No effects regarding the issue are expected	
1.2.1. Cattle/sheep breeding and bee keeping practice is more efficient	0	No effects regarding the issue are expected	
1.2.2. Grass cutting, packing and transport are more efficient	0	No effects regarding the issue are expected	

1.2.3. Production of traditional and organic agricultural local products is enhanced	0	No effects regarding the issue are expected	
1.2.4. Cooperation among farmers in production and marketing is enhanced	0	No effects regarding the issue are expected	
1.2.5. Knowledge and skills of local farmers are improved	0	No effects regarding the issue are expected	
2.1.1. The knowledge of the local population about their region is deepened	0	No effects regarding the issue are expected	

<p>2.1.2 The local teachers are trained, the curricula are enlarged and the equipment of schools is upgraded</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.3. The knowledge of the local people about the women empowerment and prevention of gender-based violence is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	
<p>2.1.4. The knowledge of local teachers, pupils and community about environmental challenges, climate change and waste reduction is enhanced</p>	<p>0</p>	<p>No effects regarding the issue are expected</p>	

2.2.1. The education and skills of medical personnel are improved	0	No effects regarding the issue are expected	
2.2.2. The availability of essential means for providing medical care is enhanced	0	No effects regarding the issue are expected	
2.2.3. A basic social assistance and care is provided	0	No effects regarding the issue are expected	
3.1.1 Proposal of management plan of the Aragvi Protected Landscape is approved	0	No effects regarding the issue are expected	
3.1.2 Methodological materials are created	0	No effects regarding the issue are expected	
3.1.3 Nature and landscape conservation	0	No effects regarding the issue are expected	

capacities in protected areas are strengthened			
3.1.4 A Local Action Group is established and functioning	0	No effects regarding the issue are expected	
3.1.5. Introduction and operations of sustainable forest management of the Aragvi Protected Landscape"	0	No effects regarding the issue are expected	
<p>Summary of the likely impacts:</p> <p>The Programme is not reflecting the problem of accessibility of the public services in the region.</p>			

6.3 Likely effects on ADA’s Standards

Based on the evaluation above, the likely effects of the Programme on ADA’s standards are summarized below.

ADA’s Standards	Likely effects
<p>Biodiversity Conservation and Sustainable Natural Resource Management</p>	<p>The Programme consists of components directly aiming at biodiversity conservation and sustainable natural resources management. Number of planned interventions supports the Aragvi Protected Landscape administration and implementation of the APL management including setting biodiversity conservation objectives and measures for their achievement.</p> <p>The Programme support for preparation of the Forest Management Plan will contribute to the sustainable management of the natural resources.</p> <p>Programme components supporting agriculture will contribute to the preservation of the biodiversity-rich grassland ecosystems, as well as can assist in maintaining traditional agro-biodiversity.</p> <p>The tourism development-related interventions can be associated with certain risks in connection with the desired increase human presence in the currently scarcely populated areas. Direct negative impacts may involve disturbance of wildlife, trampling on sensitive grasslands and erosion exacerbation along the tourist pathways. Indirect impacts can involve increased risk of forest fire, illegal deposition of wastes, and general opening up of the ecologically sensitive area for subsequent pressures associated with tourism development (attracting new investments in tourist infrastructure, namely service roads, accommodation objects etc.). Considering the scale of the planned intervention, the effect is not likely to be significant in the short-term perspective, but in the long run and in cumulation with other pressures (forestry, animal husbandry) can not be regarded as risk-free. The functioning APL management and implementation of the APL Management Plan can be considered as key safeguards ensuring prevention of the above mentioned risks.</p>

<p>Climate Action</p>	<p>The Programme-supported interventions will not result in any carbon GHG emissions-intensive activities or developments, and the implementation of the Programme as a whole will not result in any significant increase in emissions. Several specific interventions have a potential to contribute to the GHG mitigation effort through protection and sustainable management of forests and mountain meadows and grasslands, which can maintain and enhance carbon sequestration in biomass and soils (Programme interventions related to the APL Management, preparation of the Forest Management Plan, agriculture-related interventions). Minor reduction of the existing emissions can be also achieved as a result of investment in new efficient technologies, and equipment, or renewable energy sources supported within the small grant scheme funded by the Programme. Considering the scale and nature of the supported projects such effects will be very small.</p> <p>The Programme takes into consideration climate change vulnerability and need for disaster risk reduction in several aspects. The nature and landscape protection interventions and sustainable forest management interventions will contribute to the maintenance of the diverse landscape and its vegetation cover, thus directly contribute to the resilience of the APL territory against climate risks. Furthermore, the Programme contain number of measures explicitly addressing climate change risks and adaptation through including this topic in the supported training and capacity building activities.</p>
<p>Resource Efficiency and Pollution Prevention Management</p>	<p>The landscape protection, nature conservation and sustainable use of local resources constitute key objectives of the Programme and the related activities thus carry very little risk of stimulating excessive resource extraction or pollution. The small constructions that can be associated with certain interventions (e.g. guesthouse renovation, bridge on the tourist trail) will use locally sourced construction materials (timber, stone), and given the scale of such activities there is no considerable risk of generating any significant negative impact. The tourism development activities can led to increased household waste and wastewater generation (simply as a result of achieving increase in numbers of incoming tourists), but even this effect is likely to be very small. The household wastes typically does not have high potential to cause dangerous contamination, and measures to minimize such risks can be adopted on the level of individual projects (i.e. the development of tourism facilities includes waste management and related equipment). The preference for environment-friendly and innovative projects (renewable energy, low energy/water consumption, recovery of waste, sustainable use of construction materials, etc.) is a key guiding principle for Programme funded scheme awarding support to individual small projects.</p> <p>Interventions of the Programme oriented towards agriculture are also designed to support traditional and sustainable forms of production, and their preservation in current scope and intensity rather than to pursue economic expansion. The risk of generation negative environmental externalities is therefore small, and the-programme supported</p>

	<p>acquiring of new equipment or machinery can in fact further reduce the inherent risk of accidental spills or similar pollution events associated with the agriculture, processing, or forestry activities.</p>
<p>Community Health, Safety and Working Conditions</p>	<p>The Programme supports education of medical personnel and availability of essential means for providing the medical care. This should have direct positive and long-term impact on the community health in the region.</p> <p>The tourism and agriculture related activities can be associated with higher risk of environmental problems and therefore some risks to community health and safety. However, the Programme is designed to support only sustainable solutions and no significant negative impacts on the environment and the community health are expected.</p> <p>The activities within the forest management project could lead to the limited access to the firewood. This will most probably be prevented, since the project teams have good knowledge of the region and the projects are implemented in close cooperation with the local representatives.</p> <p>During the implemented period, there would be need for a work force, most probably from the region (assistance with the project activities, translations, manual work within the forest management or tourism projects). All the project teams should ensure safe and healthy working conditions, fair treatment and non-discrimination. They should also minimise the risks of accidents and injuries, especially during the work within the forest management or tourism projects. They should also minimise the risk of any diseases, e.g., related to Covid-19.</p>
<p>Cultural Heritage</p>	<p>Due to the significantly decreasing and aging population in the area, there is a risk of inevitable damage and transformation of cultural heritage. The Programme reflects this risk across the planned activities. Development of sustainable tourism enhances the knowledge of specific regional and local cultural heritage. Moreover, the Programme acknowledges the risks of the uncontrolled tourism and the activities are designed to empower the local communities in the process. There is a specific support for their own business activities in the sector, which can be related to guesthouses, local crafts, tour guiding, etc.</p> <p>Moreover, the cultural heritage is taken into account also in the agricultural interventions. The projects support local people in production of traditional products. The knowledge of the local population about their region is deepened, which could enhance the motivation to actively participate in the community, start new businesses</p>

		and stay in the region. Therefore, the Programme ensures, that the benefits from the use of cultural heritage will be shared equally by all members of the community.
Displacement and Resettlement		<p>The Programme respects the traditional ownership of the land and avoids any forced evictions. Moreover, one of the projects is suggesting to encourage registration of the land to avoid any future problems in this matter.</p> <p>However, there is a risk of unintended negative impacts during some of the activities. Therefore, the project teams should be well informed about the ownership situation in the localities, where there will be planned any new tourist tracks or where will be planned any forestry management activities.</p>
Indigenous People		<p>The Programme encourages the participation of the local community and all its members. Attention is given especially to the rights of women, elderly and persons with disabilities.</p> <p>Rights and preferences of all members of the community should be fully respected. Currently, there is a lack of equal participation and implemented activities should therefore enhance higher involvement of various groups.</p> <p>All the projects' documents are stating, that the projects will ensure equal opportunities for participation of all persons without discrimination on any basis. However, this should be monitored by the project team and the donor in specific situations mentioned above (e.g., land ownership, participation in the decision making). A complete information about the activities should be provided to all the members of the community in effective way.</p>

7 Monitoring

The monitoring of the likely effects of the Programme will be elaborated in the Risk Management and Sustainability Plan (RMSP), which represents an individual output of the EGSIA Aragvi project.

8 Conclusions

The baseline analysis resulted in identification of the following key environmental, gender and socio-economic issues, relevant for the territory of Aragvi Protected Landscape:

Environmental issues

- Habitats and biodiversity
- Conditions of mountain meadows and alpine grasslands
- Erosion (and other natural hazards)
- Forest management
- Waste management
- Water
- Energy supply
- Landscape protection (risks from development of new major infrastructure)
- Pollution and other environmental degradation

Gender issues

- Economic activities of women and men
- Low participation of women in local decision making
- Domestic violence

Socio-economic issues

- Depopulation of the region and a high share of elderly and retired in the population
- Lack of job opportunities in the region Low entrepreneurial activity in the region
- Non-existent processing capacities for local agricultural production (most significantly milk) limits income opportunities (mostly only self-subsistence farming)
- Under-developed tourism potential coupled with insufficient capital resources for investment by local households and their reservations regarding bank loans
- Insufficient transport connection of the region (poor road network and limited public transport)

- Low and declining access to quality fodder for livestock for winter season, leading to further de-population of the region (or increasing seasonality or the residence)
- Worsening accessibility of the public services

Considering the results of the assessment of the likely impacts of the Programme's specific objectives and the expected results on the key issues above, it can be concluded that the Programme's implementation will have the likely positive impacts (from moderate to significant) on the most of the environmental, genders and socio-economic issues. Its support for establishment of the APL administration including the development of the APL Management Plan, which can be considered as the most important step towards ensuring protection of natural values within the concerned area, represent an important contribution to preserving the habitats, biodiversity and other natural resources in the area. The Programme is expected to have a significant positive impacts on the gender issues, where the development of services for tourists represents a great potential for the development of employment opportunities for both men and women and this it may have indirect positive impact on reducing the incidence of domestic violence. Also, The programme can contribute significantly to women's economic independence not only through new job opportunities, but also through raising awareness of women's empowerment and creating a network of publicly available childcare services for children under 6 years of age. The Programme is expected to have a positive impact on the APL de-population and significantly increasing average age, as more business opportunities for the local entrepreneurs, related job opportunities and increased agricultural production could be important motivation for young people to stay in the area. Also, support for social and healthcare assistance could improve the situation of the elderly in the region.

The likely negative impacts associated e.g. with the tourism development, will be mainly moderate and of the local nature.

Based on the evaluation of the likely effects on the key environmental, gender and socio-economic aspects, the potential effects of the Programme on the ADA's Standards were evaluated. It can be concluded that the Programme is in accordance with the ADA's Standards.

