EUROPEAN NEIGHBORHOOD AND PARTNERSHIP INSTRUMENT EAST COUNTRIES FOREST LAW ENFORCEMENT AND GOVERNANCE II PROGRAM

The Program is funded by the European Union and implemented by the World Bank in partnership with WWF and IUCN

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Mapping Degraded Landscapes and Priority Landscapes Functionality Sites in Forest Dependent Communities

IUCN

Final Report

Azerbaijan, Armenia, Belarus, Georgia, Moldova, Russia and Ukraine

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Acronyms

FLR	Forest Landscape and Restoration
ROAM	Restoration Opportunities Assessment Methodology
CPC	Country Program Coordinator
ENA FLEG	Europe and North Asia Forest Law Enforcement and Governance
ENPI FLEG	European Neighbourhood and partnership Instrument East Countries Forest Law and Governance II Program
FMP	Forest Management Plan
IUCN	International Union for Conservation of Nature
NDVI	Normalized Differenced Vegetation Index
REDD+	Reducing Emissions from Deforestation and Forest Degradation
UNFCCC	UN Framework Convention on Climate Change
WRI	World Resource Institute

Abstract

Within this project the results of the forest dependency study were utilized to implement an intervention methodology that is in line with the Forest Landscape and Restoration (FLR) principles as outlined in the Restoration Opportunities Assessment Methodology (ROAM) manual. The principal objective of the assignment was to obtain accurate geospatial as well as ground-based information for selected communities located in the ENPI East FLEG II countries that were used to create a variety of GIS maps highlighting forest regions and/or landscapes priorities. A twostep approach was used to analyse the FLR potential that included 1) broad-scale satellite-based assessment that investigated trends in vegetation cover and linked it to degradation patterns and 2) extensive local-level FLR stakeholder workshops to account for specific conditions.

The experience gained and the lessons learned will be used for country wide FLR implementations in the future. The results will aid decision makers and people in rural settings to identify trade-offs and synergies of current management practices and will foster strategies that will increase individual and community resilience by optimizing the use of the natural resource base.

1. Introduction

1.1 Forest Landscape Restoration

Globally, there are an estimated 2 billion hectares of degraded and deforested land that could potentially be transformed into resilient and multifunctional landscapes. If restored, these landscapes will provide a multitude of ecosystem goods and services and hence, most likely improve the livelihoods of nature-dependent rural communities, while simultaneously contributing to climate change adaptation and mitigation.

The need to restore these landscapes was firstly acknowledge by the Bonn Challenge of 2011[1], calling for the restoration of 150 million hectares by 2020. Further, it fostered the implementation of other international commitments like the Aichi Biodiversity Target 15[2], the goals for Reducing Emissions from Deforestation and Forest Degradation (REDD+)[3] under the UN Framework Convention on Climate Change (UNFCCC) and the Rio+ 20 land degradation targets[4]. Building upon the Bonn Challenge, the 2014 New York Declaration[5] of Forest targeted the restoration of an additional 200 million hectares of by 2030 summing up to a total of 350 million restored land in 2030.

Forest Landscape Restoration (FLR) is building upon these international agreements aiming at regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes worldwide. It is focusing on strengthening landscape resilience and creating future options to adjust and further optimize ecosystem goods and services. In this context, the FLR guiding principles include i) a strong landscape focus, ii) landscape functionality restoration, iii) to allow for multiple benefits, iv) to leverage suite of strategies, v) strong stakeholder involvement and participation, vi) the consideration of local conditions, vii) the prevention of further reduction of natural forest cover and viii) an adaptive management.

[1] http://www.bonnchallenge.org

[2] https://www.cbd.int/sp/targets/

[3] http://www.un-redd.org/

[4] http://www.unccd.int

[5] http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/07/New-York-Declaration-on-Forest-%E2%80%93-Action-Statement-and-Action-Plan.pdf

1.2 Restoration Opportunities Assessment Methodology[6]

ROAM was developed by IUCN and WRI as a flexible and affordable framework for identifying and analysing FLR potential and opportunities on a national and sub-national scale. Developed through a collective learning process, it involved a large number of organizations and stakeholder groups in Ghana, Mexico and Rwanda. In its widest sense ROAM follows a stepwise and iterative 3 Phase process (see Figure 1) and eventually identifies the best set of FLR opportunities for the specific area based on a collaborative engagement with local experts and stakeholders.

Figure 1: Phases of the ROAM

1.3 Linking ENPI FLEG and FLR

To estimate the true value of forest resources for rural communities in boreal forest ecosystems, the ENPI FLEG II Program analysed the human-nature dynamics in Eastern Europe and Russia and addressed improved forest governance arrangements through the effective implementation of the main priorities set out in the St. Petersburg Ministerial Declaration and the Indicative Plan of Actions for the Europe and North Asia Forest Law Enforcement and Governance (ENA FLEG) process. The main objectives of ENPI FLEG II was to develop a quantitatively-based framework to more accurately estimate nature-human dependencies in boreal and temperate forest ecosystems, to document the principal drivers

[6] For a detailed description of the ROAM methodology please see https://portals.iucn.org/library/sites/library/files/documents/2014-030.pdf

of sustainable forest use as well as the various interactions between communities and their forest resources. In each of the ENPI FLEG countries ground-based surveys were conducted to collect information on the socio-economic conditions of forest-dependent, rural communities, which are crucial to make an assessment about their vulnerability.

While ENPI FLEG is concentrating on the human nature dependency, FLR and ROAM are going one step further and analyse the restoration potential of the surrounding landscape to improve the daily livelihoods. Combining both approaches holds the key to make quantifiable and robust expert assessments on potential FLR opportunities, while simultaneously considering the communities socio-economic situation. This guaranteed the highest possible success of any FLR intervention.

2. From ENPI FLEG to ROAM: Country specific FLR visibility studies

The implementation of ROAM in the ENPI FELG II countries requires a systematic and rigorous assessment and quantification of the restoration opportunities available, while corresponding to the individual and site specific needs. At present, no FLR activity was conducted in Eastern Europe and Russia, but comprehensive information existed on the forest dependency of selected communities, gathered under the ENPI FLEG umbrella.

Since a full country assessment was not feasible, small-scale FLR visibility studies were performed in each country to investigate key attributes and potential challenges that would arise from any country-wide FLR implementation. A total of 24 communities were selected for studying their FLR potential and the selection was based on country-specific expert judgement, in particular considering communities in which good relationships with stakeholders have already been established. The experience made and the lessons learned provided guidelines to prepare for any future country-wide FLR assessment. A twostep approach was used to analyse the FLR potential that included 1) broad-scale satellite-based assessment that investigated trends in vegetation cover using MODIS NDVI data and 2) extensive local-level stakeholder workshops to account for specific conditions. This way the

study corresponded to the combination of best knowledge (local stakeholders) and best science (GIS and EO analysis) as stated by ROAM and hence, accurate and realistic results for each country were obtained. All field visits were conducted during October and December 2016 and information from the ENPI FLEG II forest dependency study was utilized for the FLR purpose. FLR data collection in the field was done with local community members and IUCN staff via multi-stakeholder meetings in the communities. CPCs were provided with geospatial maps and data provided by GeoVille to identify the priority areas in the respective communities and to depict potential FLR sites (see Figure 2 for an example).

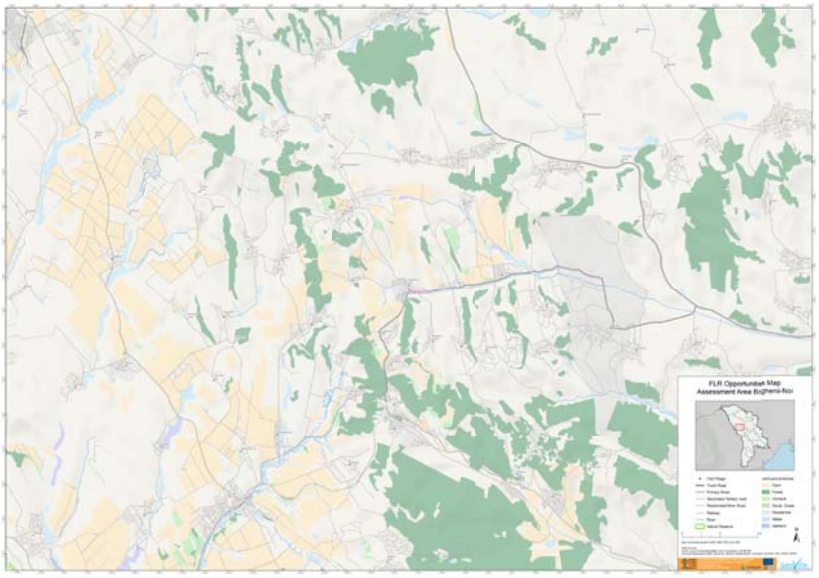

Figure 2: FLR opportunities map for Boghenii-Noi, Moldova.

The following section provides and overview of the individual field surveys in the countries and highlights the main outcomes for each community.

2.1. Armenia

Description of FLR case study site

The FLR visibility study was conducted in six villages located in the *Lori region* (Drapas, Deped and Yeghegnut), the *Syunik region* (Halzidor) and *Tavush region* (Aknaghbyur and Gandzaqar) of Armenia.

Lori is a mountainous region situated in the North of the country with an administrative centre in Vanadzor. In total, 27% of its territory are covered by forest, which have major protection, water- and climate control services. In fact, the region is considered as Armenia's greenest area, with more native forest land than any other region. The economy is mostly based on remittances from family members working abroad, with that money being used to create small shops and businesses. However, the main economy sector is agriculture. *Tavush* is situated in the north-eastern part of Armenia and is part of Armenia's green belt with the second largest forest expanses in the country. Tavush's economy is based on agriculture, seasonal tourism and remittances from family members working abroad, with that money funding small enterprises. *Syunik* is the southernmost region in Armenia and is rich minerals such as copper, molybdenum, zinc, and lead as well as precious metals (gold, silver) and other minerals. Hence, mining industry is the dominant sector of economy, with a total of 40 mines operating in the region. Syunik holds the largest share of agricultural areas in Armenia. Due to military conflicts, poor infrastructure and high unemployment rates, the region is one of the least inhabited in Armenia.

Stakeholder Meetings

The stakeholder meetings were run by Luba Balyan (ENPI FLEG IUCN CPC, FLR Armenia coordinator). In total 14 stakeholders were involved in the FLR meeting, which included community mayors, representatives of local forest enterprises, community advisers and others. A list of the main stakeholders that participated in the meeting is presented Table 1 of the Appendix.

During the stakeholder meetings, individuals present at the meeting were all in favour of the upcoming FLR implementation. The idea of landscape improvement and positive changes which are anticipated in future and will potentially step into their communities was welcome with a great enthusiasm and support. There were no specific challenges observed really, this is the kind of change that everyone looks forward to because the communities essentially deal with post-soviet rural areas where lands have been either abandoned or misused due to

the collapse of agricultural and economic systems.

FLR Potential

Lori Province

In general, the NDVI trend analysis revealed an increase in vegetation for forest and shrubland as well as agricultural land across the Lori province of Armenia (Figure 3). There was a small forest area in the northeast of the region where strong decreasing vegetation trends were obtained. For agricultural land, vegetation decreases were small and scattered over the region.

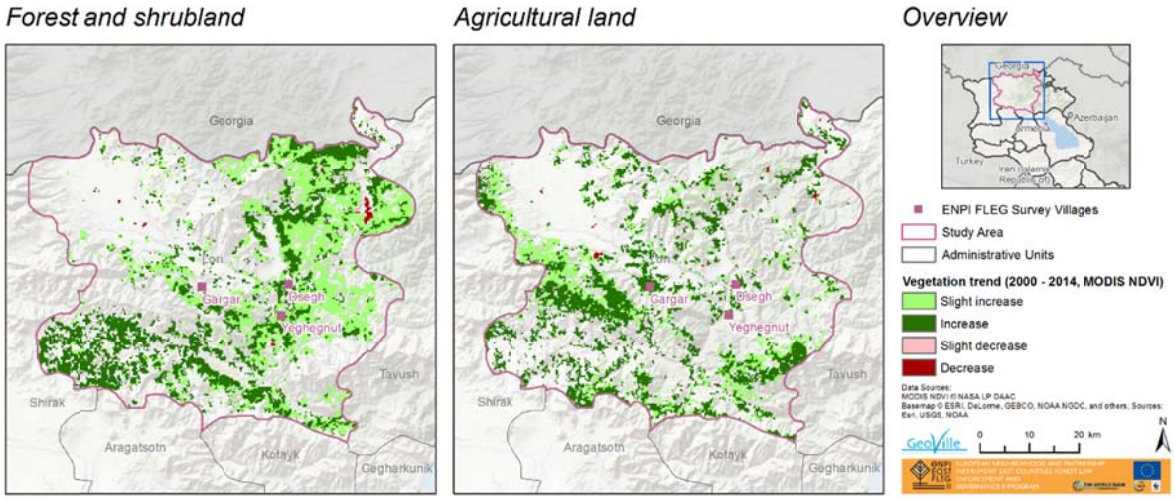

Figure 3: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Lori province in Armenia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

For the FLR visibility study, three villages were selected within the Lori region, which included Yeghegnut, Debet and Darpas.

Yeghegnut village is located in the Northeast part of Armenia on the right banks of Pambak river at 1000-1600 m above sea level. The community's territory is 12.26 km^2 of which 36.62 ha are industrial land, 118 ha are arable lands, 1,335 ha are forest, 1,007 ha are pastures and 160 ha are meadows. The population (875 inhabitants) of the community is involved in timber trade and cattle breeding. Overall, the community is highly dependent on timber and non-timber production from forests and 43 families in Yeghegnut village live on the state welfare support. All forest of the community belong and are managed by the state forest

agency "HAYANTAR" SNCO under Ministry of Agriculture of Armenia. During the FLR stakeholder meetings it was suggested that 95.5 ha of forest land needed restoration due to the server logging during the years of energy crisis and uncontrolled commercial trade (see Figure 4). Forests of Yeghegnut village largely require intervention in the form of support to natural regeneration and regrowth management using native tree species. Further, 227.5 ha of community owned lands are subject to landscape restoration of different types.

Debet village is surrounded by mountains and forest, with an administrative territory of 10.32 km^2, of which 57.15 ha is arable land, 150.6 ha is hay meadows, 150.6 ha is household orchards and 165 ha are pastures. The population of the community (total of 893) is mostly involved in agriculture, predominantly livestock farming. Most arable lands of the village have been transformed into grassland because of the lack of agricultural machinery and fuel to operate them. All forest lands of the community belong and are managed by the state forest agency "HAYANTAR" SNCO under Ministry of Agriculture of Armenia. With respect to FLR, Debet village is one of the best demonstration villages where FLR interventions can be showcased. The community has 43.2 ha of forestland subject to restoration both in the form of reforestation and afforestation activities (see Figure 4). A total of 103.8 ha are also subject to reconstruction which may include tree planting, improvement of pastures and arable lands and other complex measures depending on more detailed studies.

Dapras has a total of population of 2030, who is involved in agricultural practices, mostly livestock farming, crop production and bee farming (honey production). The administrative territory of the community is 4693 ha where pasture makes up 2464 ha, urban land is 83.3 ha, arable lands are 178 ha and forest is 1431 ha, respectively. However, forests in the community are also used for as pastures. All forest resources of the community belong to the state and are managed by the Ministry of Agriculture of Armenia through its state forest agency «Hayantar» SNCO. The community has 145 ha of forest land which is subject to FLR activities of various type, which will be determined in the course of a more detailed research and analysis. 235 ha of land owned by the community also include pastures, arable land and hay fields in need of ecological reconstructions and improvement measures.

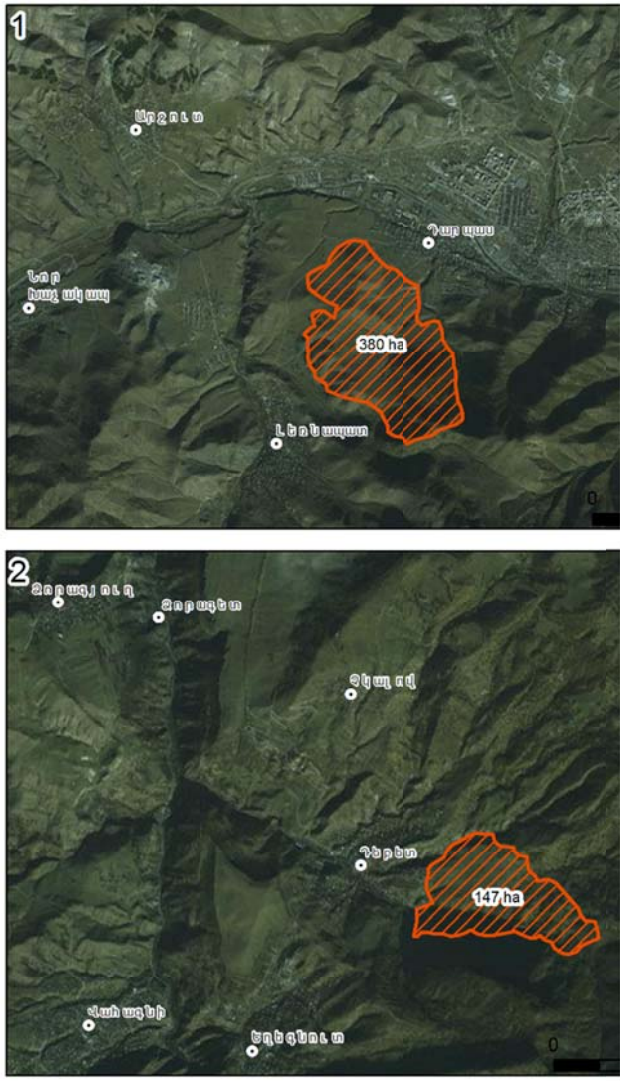

Figure 4: FLR intervention areas for and 1) Drapas, 2) Deped and 3) Yeghegnut in Lori province, Armenia

Syunik Province

NDVI trend analysis revealed an increase in vegetation for forest and shrub as well as agricultural land across the Syunik province (Figure 5). Decreasing trends were rather small and scattered across the entire territory.

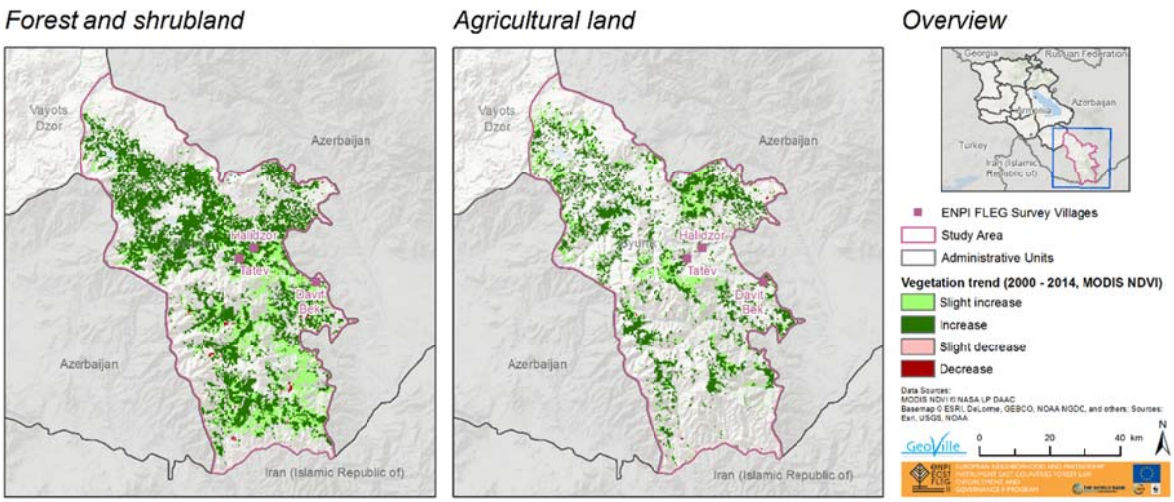

Figure 5: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Syunik province in Armenia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

For the local level FLR visibility study Halidzor has been selected. Halidzor is an old rural community situated on the left banks of Vorotan River at an elevation of 1250 m above sea level. The village hosts a station of the Wings of Tatev - the world's longest double track aerial tramway and is located near the popular tourist destination. Out of 2777 ha of land, the community has 514 ha of arable land, 22 ha of perennial plants, 98 ha of pastures, 308 ha of forest and 973 ha of special protected lands. The village has a total population of 602, who is engaged in crop production and cattle breeding. All forest lands belong and are managed by the state forest agency “HAYANTAR” SNCO under Ministry of Agriculture of Armenia. With respect to FLR, restoration is needed for a total of 32.5 ha of forestland that is part of the state forest fund. This will include both reforestation and ecological reconstruction of areas found in poor degraded condition after tree cutting and commercial logging. Further, 23 ha of community land is subject to reconstruction of different types (to be defined) and includes pastures and arable land (see Figure 6).

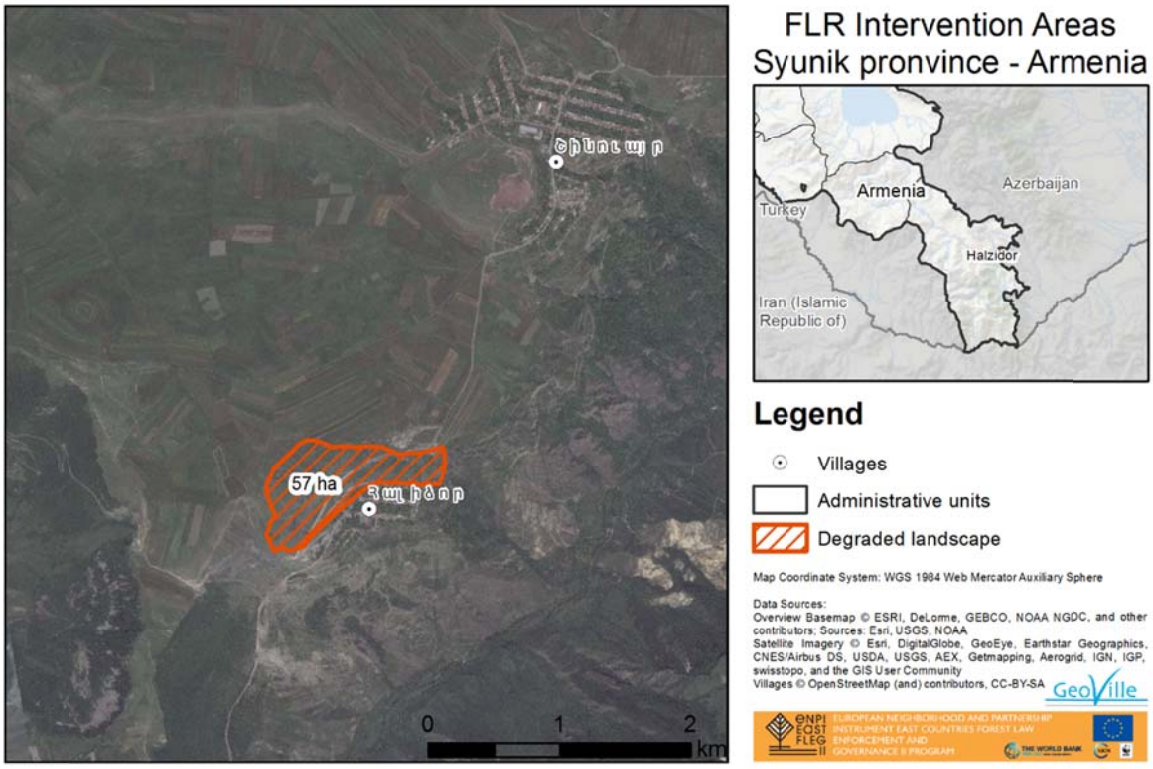

Figure 6: FLR intervention areas for Halzidor in Syunik province, Armenia

Tavush Province

For the Tavus province, vegetation trend analysis revealed an overall increasing trend for forest and shrubland as well as agricultural land. Only in the northern part of the province small scale decreasing trends were obtained for forest and agricultural land (Figure 7).

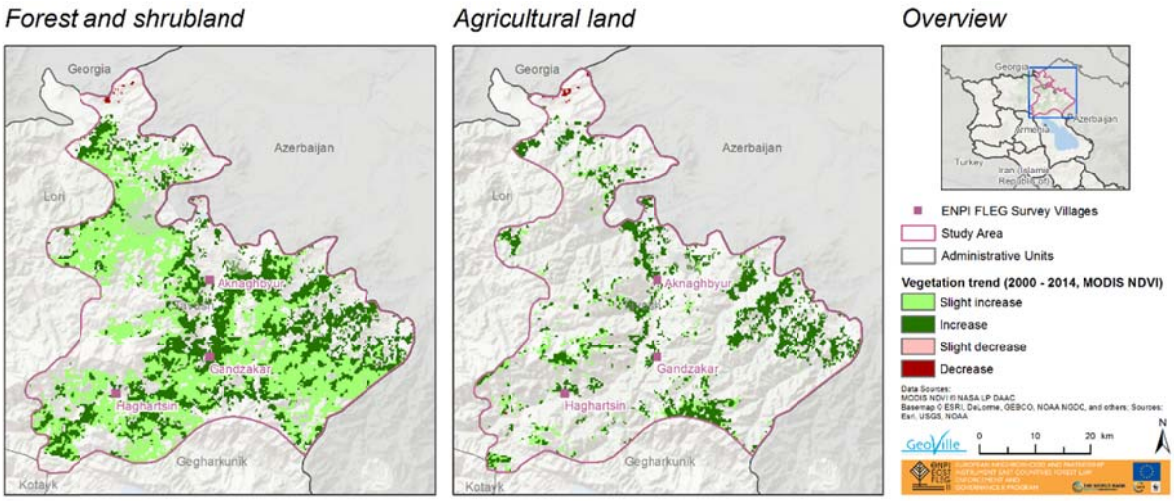

Figure 7: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Tavush province in Armenia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

For the FLR visibility studies in the communities Gandzakar and Aknaghbyur were selected.

Aknaghbyur is one of Armenia's oldest rural communities and has a population of 445 inhabitants. The community has 88.49 ha of pastures and 180.51 ha of arable lands and the majority of population is involved in crop production and cattle breeding. The village is known for its locally grown fruits, which are offered for sale not only in Tavush region, but also in various markets in Yerevan City. The percentage of forest use in Tavush region is the highest out of all of the regions. All forest resources belong and are managed by the state forest agency "HAYANTAR" SNCO under Ministry of Agriculture of Armenia. With respect to the FLR implementation, reforestation is planned for 10.3 ha of forestland that is under Hayantar forest state agency and 23 ha of community owned land which includes pastures, arable lands and other abandoned territory no longer used (see Figure 8).

Gandzakar is one of the biggest communities in Tavush region, where elderly population make up half of the village population (total inhabitants are 600). In total, 1,038.72 ha out of 12,906.13 ha are pastures and 955 ha is arable lands. 54% of household land property is not cultivated because of high costs for irrigation water and fertilizers. Part of arable lands is not used either because of lack irrigation pipes. 46.0% of respondents explain that the land is too far from their house and 38.5% mention the lack of labour hands. The population is involved in agriculture, livestock farming and collection of non timber forest products. All forest of the community belongs and is managed by the state forest agency "HAYANTAR" SNCO under Ministry of Agriculture of Armenia. During the FLR stakeholder meeting it was revealed that reforestation is needed for 47 ha of forestland which is managed by Hayantar SNCO forest state agency. Further, ecological restoration of 19 ha of land owned by community which mostly includes pastureland and arable land, mostly abandoned that needs to be rehabilitated (see Figure 8).

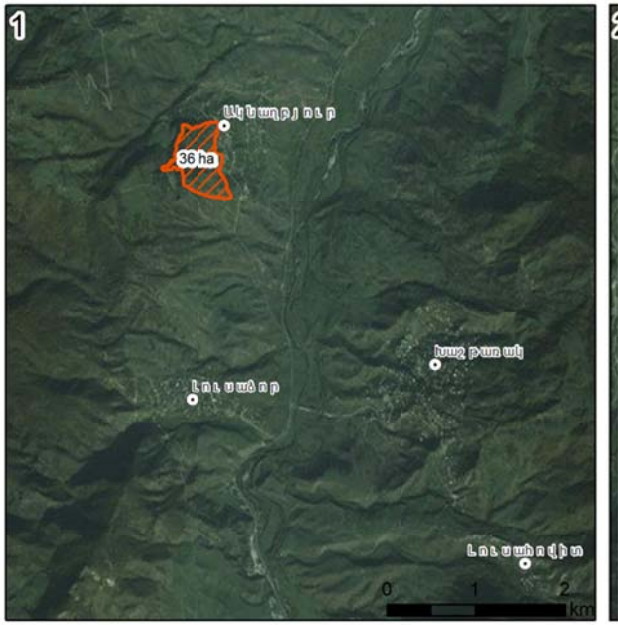

Figure 8: FLR intervention areas for and 1) Aknaghbyur and 2) Gandzaqar in Tavush province, Armenia

2.2. Azerbaijan

Description of FLR case study site

The FLR visibility study was conducted in Khanagah village located in the Ismailli district and the Hajalli village located in the Geranboy District. In both districts, a forest dependency study was conducted under the ENPI FLEG II umbrella. While the Ismailli district is situated near the Greater Caucasus Ridge, the Geranboy District lies at the foot of the Lesser Caucasus Ridge, where the climate and the forest are valuable for the country.

Stakeholder Meetings

All stakeholder meetings were organized prior to field visits by directly contacting the heads of local administrations, municipalities and the leaders of the local forest enterprises. Meetings were held in the premises of the forest enterprises and locals, local governments, communities and the forest enterprises were highly motivated to take part in the study. However, villagers and employers of local forest entries were not willing to share information about forest dependency and a common vision on local forest development was absent. Further, women were not allowed to participate in any decision making process regarding forest-related issues.

The stakeholder meetings were run by Azer Garayev (ENPI FLEG IUCN CPC, FLR Azerbaijan coordinator), who was accompanied by Rahim Ibrahimov (Focal Point FLEG program from MENR). In total 14 stakeholders were involved in the FLR meeting, which included members of the communities, representatives of local forest enterprises, local farmers and others. A list of the main stakeholders that participated in the meeting is presented Table 2 of the Appendix.

FLR Potential

<u>Goranboy District</u>

In general, vegetation trend analysis revealed an increase in forest and shrubland as well as

agricultural areas across the Goranboy district (Figure 9). However, there were isolated agricultural areas that showed strong decreasing trends in the northern as well as the southern parts of the district. These areas indicate degradation and deforestation patterns, which would require further investigations on the local level.

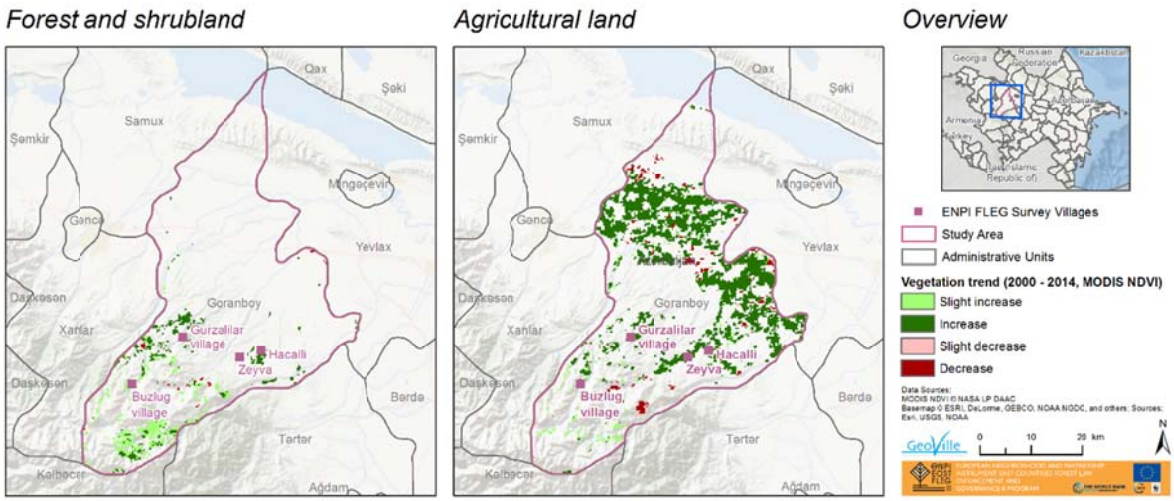

Figure 9: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Goranboy district in Azerbaijan. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

With respect to the local level FLR activities the Hajalli village was selected, which is located near the village Zeyva in the eastern part of the district. Previous to 2007, the territory was part of the state reserve fund. After 2007, in accordance with the decree of the Cabinet of Ministers an area of about 160 ha has been transferred into the State Forest Fund. It is entirely degraded due to illegal logging and grazing practices by the local population. Thus, the complete reforestation with elements of mosaic landscape, including agricultural forest plants is required in this area.

Ismailli district

Overall the NDVI trend analysis revealed an increase in vegetation for forest and shrubland as well as agricultural land (Figure 10). However, there were strong decreasing trends for forest in the north-western part and for agricultural land in the southern part of the district, respectively. These trends indicate a potential degradation or deforestation of the area that

require further investigation on a local level.

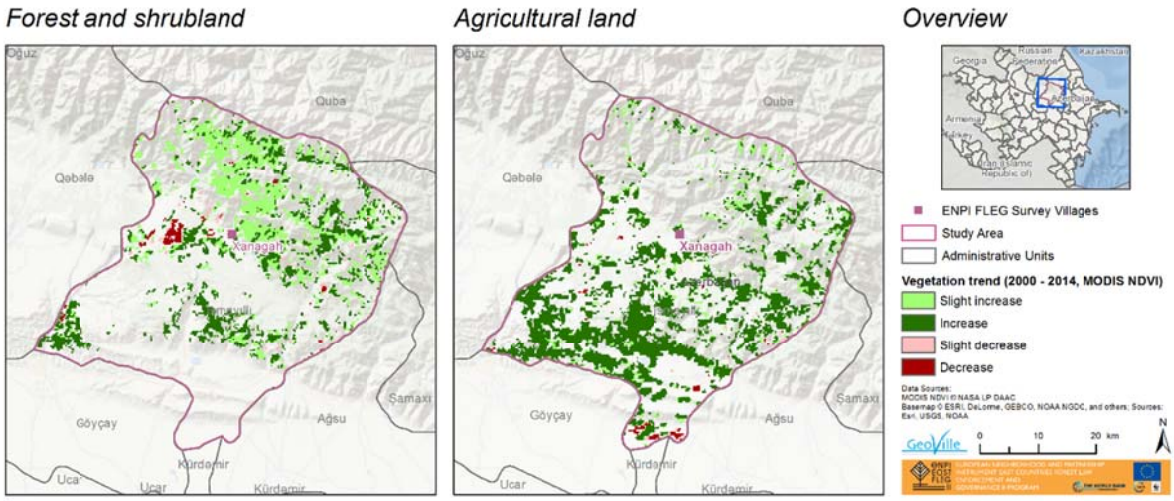

Figure 10: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Ismailli district in Azerbaijan. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

On the local level, the territory allocated for FLR is situated close to the Khanagah village and has a total area of about 160 ha. It is located between the irrigation channel and reserve area[7], which is belonging to the Shahdag National Park. Historically, the area experienced illegal logging and had been almost completely cut down after the collapse of the Soviet Union in the 1990s. In the mid-2000s, the territory came under the protection of local state forest enterprise. Natural recovery is very disturbed due to the grazing practices, which has a negative impact on forestlands. The FLR areas is very heterogeneous in nature encompassing emerging natural recovery processes and heavy shrub growth due to a lack of management. Further, there are highly degraded areas as well as areas suitable for planting of the agricultural forest. Based on the FLR assessment, three types of activities were defined:

1. Ecological reconstruction and transformation at the site where the natural recovery is in progress, but it is dominated by emergence of shrubs
2. Reforestation through planting of the main tree species in degraded areas
3. Reforestation by planting of agricultural plants such as forest nut and walnut near the channel and coast-reinforcing forest trees in certain areas along the channel border.

[7] The main protected species in this reserve is the Red-leaf Oak.

2.3. Belarus

Description of FLR case study site

The FLR visibility study was conducted in the communities Buda-Koshelevo (village of Gubichi) and Gomel (village of Pribor). The population of the Buda-Koshelevo district is 43.100 people, with the district centre being the town of Buda-Koshelevo. The district has one of the lowest forest cover percentages in the Gomel Region (22.5%), with the remaining area being dominated by agricultural land (70%) and other land (8%).

In contrast, almost half of the Gomel community is covered with forest land (42%), with the remaining area being covered with agricultural land (38%) and other land (20%) like peatlands, rivers and ponds. The village of Pribor is characterised by two distinctive features. On the one hand there are no production enterprises in the area apart from the local forestry unit and small private farm and wood processing on the other hand a close-knit gypsy community is living in the area (about 1/3 of all population of the area of the rural council).

Stakeholder Meetings

The FLR field trip and the stakeholder meeting to the Buda-Koshelevo and Gomel community took place at office of the Head of the Rural Council on the 2nd and 3rd of December. The stakeholder meetings were run by Marina Belous (IUCN FLEG CPC in Belarus), who was accompanied by Maryna Lazarava (IUCN FLEG Forest Dependence study consultant). In total 6 stakeholders were involved in the FLR meetings, which included the heads of the communities, representatives of local forest enterprises, and others. A list of the main stakeholders that participated in the meeting is presented Table 3 of the Appendix.

FLR Potential

Buda-Koshelevo

Vegetation trend analysis revealed strong patterns of decreasing, but also increasing trends in vegetation in forest and shrubland as well as agricultural areas for the Buda-Koshelevo district (Figure 11). In particular, for agricultural land strong negative trends are revealed, which are scattered across the district area. The causes of these trends should be further investigated on the ground.

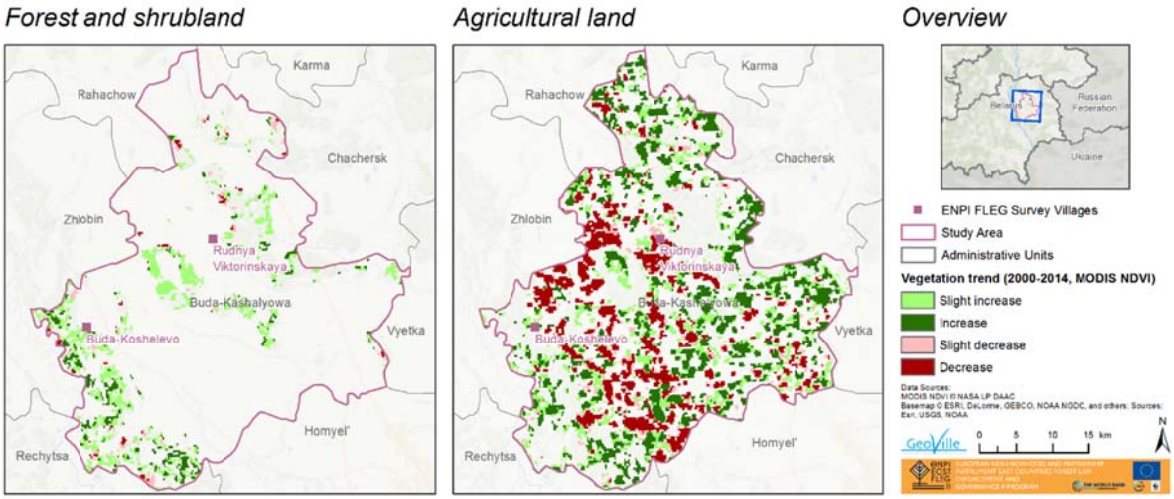

Figure 11: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Buda-Koshelevo district, Belarus. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

With respect to the local level FLR visibility study, local stakeholders claimed that there were no significant degraded areas in the community as the forest is managed by the Naspa forest unit and the agricultural land is maintained by the local agricultural enterprise. However, in Gubichski Kardon, a small settlement south-west of Gubichi, which is established on the bank of the river Dnieper, ecosystem degradation is apparent. At present the river system is overgrown, the sandy banks are unstable and the sand creeps into the river, making it shallow. This caused reduced hydration of adjacent meadows and forest, making them less productive, which affects the local agricultural enterprise and the foresters. Hence, the curve of the river of the length of 7 km starting from Verkhnyaya Olba and going down to Gubichsky Kardon and down to the place where a small stream flows into it was identified as FLR implementation area (Figure 13). This includes the river bed itself and the sandy bank from the side of Gubichsky Kardon. Mosaic restoration was suggested, with the most appropriate restoration interventions being 1) restoration of the water regime of the river Dnieper at the length of 7 km and 2) planting forest cultures at the sandy banks of the river

(willow and other species).

Gomel

In general, increasing trends were obtained for forest and shrubland across the Gomel district, with only small areas that were indicating decreasing trends. In contrast, strong decreasing trends were observed for agricultural lands which are scattered across the entire Gomel district (Figure 12).

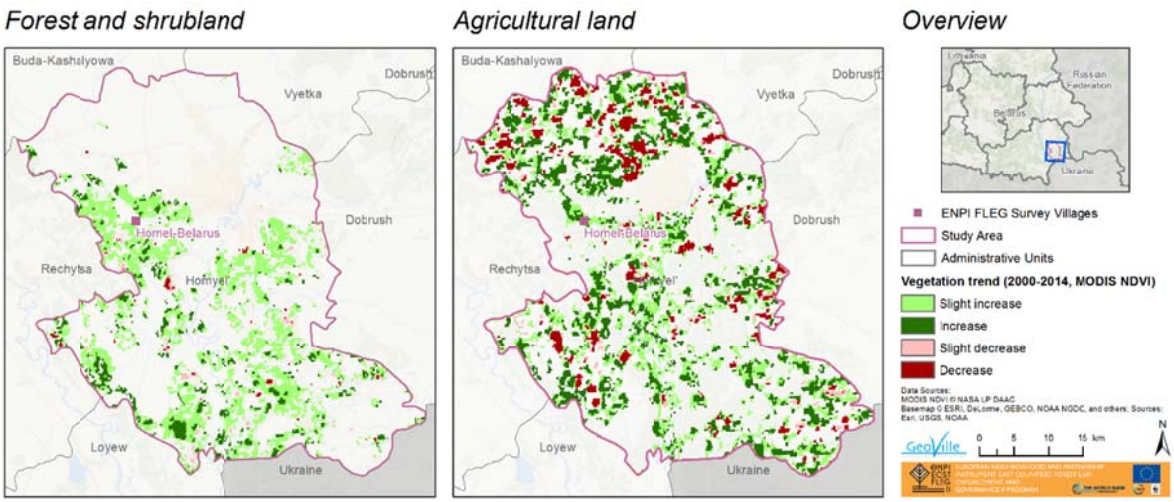

Figure 12: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Gomel district, Belarus. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014

During the FLR meeting in Pribor, local stakeholders claimed that there are no significant forest degraded areas in the community as the forest is well managed by the Pribor forest unit. However, former peat extraction sites[8] were degraded and needed interventions. Although some of them are already prone to natural regeneration and others were restored by the local forest unit, a total area of 80 ha along the river remain degraded. Hence, it was suggested to apply wide-scale restoration to the area beginning from the point where the river Uza meets the road Randovka-Pribor and going along the river to the northeast for 1.2km (Figure 13). The most appropriate restoration interventions for this area include:

[8] Before 1960s when peat extraction started on the territory of the community the entire area was forested. During 1960-1980s peat was extracted and at present all these sites are abandoned.

- Accumulation of the peat extraction wastes together with the vegetable waste at a specially organized site for vermicompost;
- Arrangement of several ponds for trout farming;
- Planting of willow, pine and other scrub and tree species along the river and former peat extraction sites which will not be occupied by ponds and vermicompost.
- Spreading compost on the most exhaust forest land and agricultural land.

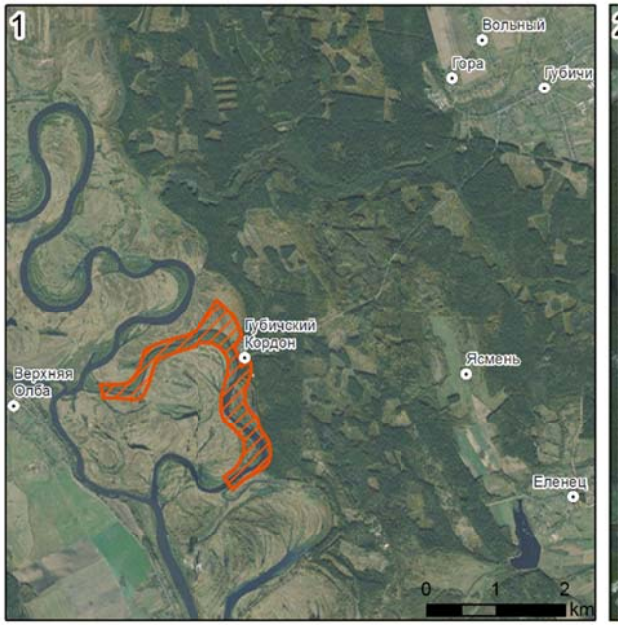

Figure 13: FLR intervention areas for and 1) Gubichi (Buda-Koshelevo district) and 2) Pribor (Gomel district), Belarus.

2.4. Georgia

Description of FLR case study site

Four municipalities were selected for the FLR visibility study in Georgia including Tianeti, Chokhatauri, Akhaltsikhe and Akhaltsikhe. The *Tianeti municipality* is situated in high mountain region in Eastern Georgia with the administrative centre being Tianeti. The municipality consists of 2 towns and 81 villages, with an average population density of 15 persons per square km. The village Sakdrioni has been selected to carry out a detailed FLR analysis. The *Chokhatauri municipality* is situated in the South-Western part of Georgia, with a total area of 82.509ha. The village Bukistsikhe has been selected for a detailed FLR analysis. The *Akhaltsikhe and Akhalkalaki municipality* are situated in Southern Georgia and belong to the historical part of Samtskhe-Javakheti. The region is dominated by mountainous plateaus. While *Akhaltsikhe* unites 48 villages, Akhalkalaki consists of 64 villages, with the administrative centre being the city of Akhalkalaki. The villages Mikeltsminda (Akhaltsikhe) and Kotelia (Akhalkalaki) have been selected for the FLR visibility study.

Stakeholder Meetings

The stakeholder meetings were run by Marika Kavtarishvili (ENPI FLEG IUCN CPC, FLR Georgia coordinator). More than 27 stakeholders were involved in several FLR meetings across the municipalities, which included the heads of the municipality and the village, foresters, locals as well as the representatives of the local consulting company (see Table 4 of the Appendix). The stakeholder meetings were successful with an active involvement of stakeholders on the local and national level. In particular, specific FLR activities were defined and implemented under the full support and involvement of municipal and village authorities and national and regional forestry authorities. All involved stakeholder had high expectations regarding the project outcomes, which supported and positively impacted the process.

FLR Potential

<u>Akhalkalaki</u>

Trend analysis revealed an increase in vegetation for forest and shrubland as well as agricultural land for the majority of the Akhalkalaki district (Figure 14). However, isolated patterns of decreasing trends in forest and agricultural land were shown for the southern parts of the district. These degradation patterns require further investigations in the field.

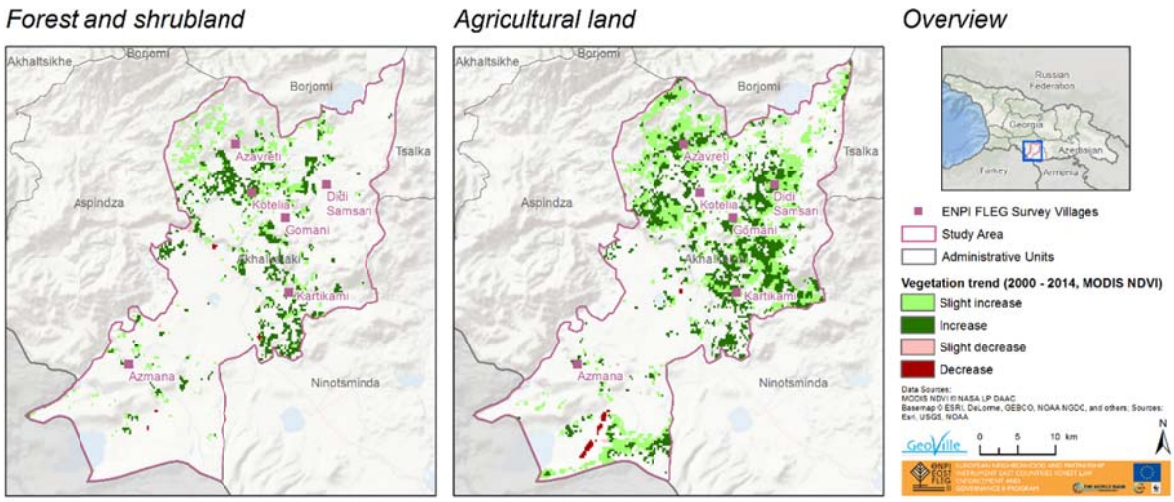

Figure 14: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Akhalkalaki municipality, Georgia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

For the local level FLR activity, the village Kotelia was selected. A total of 5.35ha of agricultural lands were identified, which experienced negative impacts due to strong influence of winds (see Figure 18). There is high necessity to restore degraded windbreaks and plant the new forest strips, which will significantly increase the yield of agricultural lands. For planting conifers (*Pinus sosnowsky, Cupressus sempervirens*), broadleaves (*Populus hybrida, Populus tremula, Acer pseudoplatanus*) and shrubs (*Prunus divaricata*) were recommended.

Akhaltsikhe

For the majority of the Akhaltsikhe municipality a slight increase in forest land was obtained, with a decreasing trends only occurring in the north-eastern part (Figure 15). Overall agricultural land was increasing with small patches of decreasing trends in the north-eastern part of Akhaltsikhe. Again, these negative trend patterns most likely indicate landscape degradation and require detailed analysis in the field.

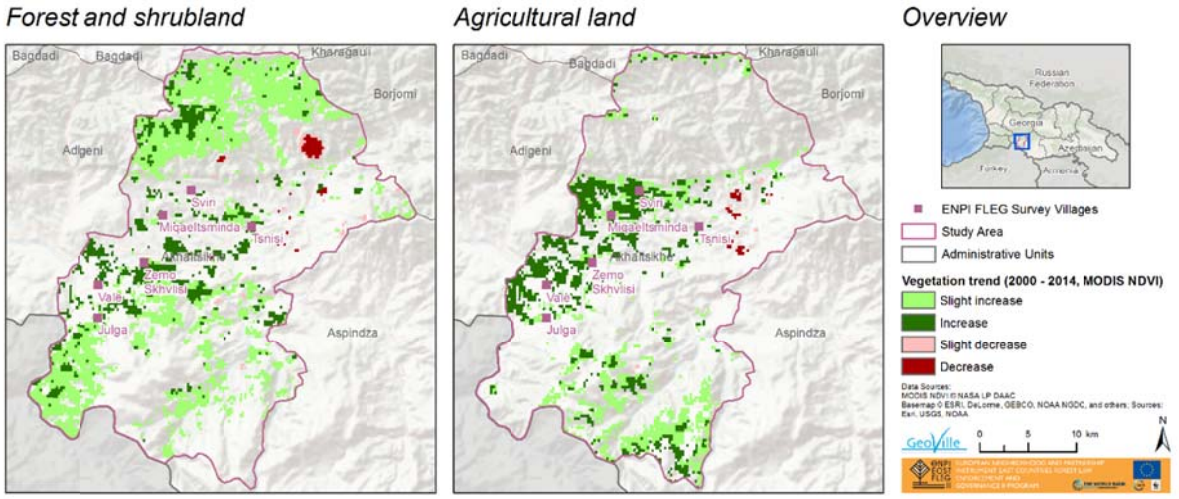

Figure 15: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Akhaltsikhe municipality, Georgia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

Near the village Mikeltsminda an agricultural dominated area of 14.05 ha was selected, which expierenced negative impact due to strong winds (see Figure 18). Hence, it was suggested to create windbreaks as well as to plant erosion-control and soil protection forest strips using conifers (*Pinus sosnowsky, Cedrus deodara, Pinus nigra*), broadleaves (*Populus pyramidalis, Acer campestre, Fraxinus excelsior*) and shrubs (*Cotinus coggygria, Prunus divaricata*).

Chokhatauri municipality

In general the Chokhatauri municipality showed vegetation increases in forest and shrubland as well as agricultural areas. Only for a small area located in the western part of the municipality decreasing trends were revealed for forest and agricultural lands (Figure 16).

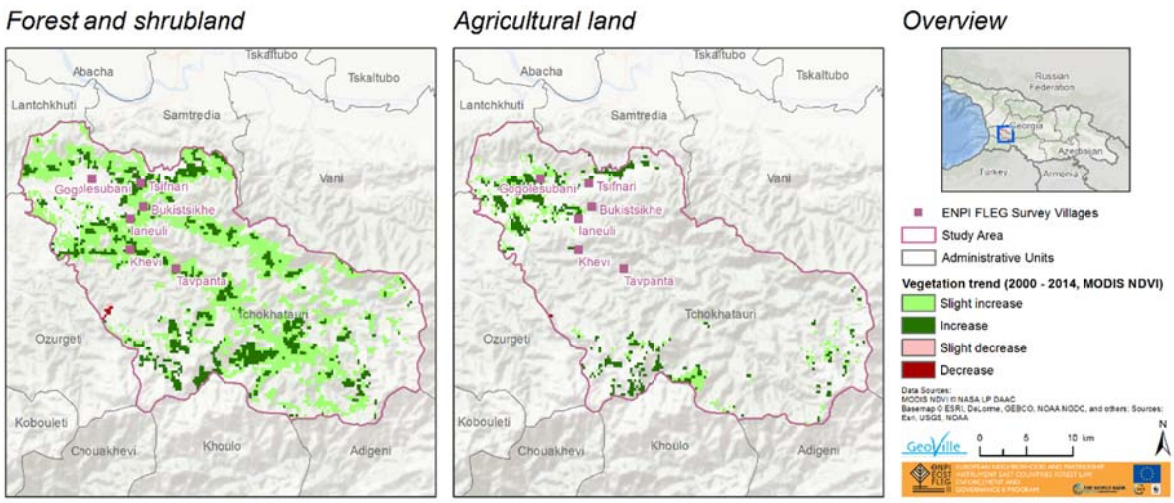

Figure 16: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Chokhatauri municipality, Georgia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The local level FLR analysis revelaed an area of 8.24 ha surrounding the village Bukitsikhe, which is characterized by steep slopes of degraded forest landscapes and suffered from erosion (see Figure 18). It was suggested to plant erosion-control and soil protection forest stripsusing conifers (*Cryptomeria japonica, Cedrus deodara, Chamaecyparis lawsoniana, Pinus pinaster*) and broadleaves (*Castanea sativa, Quercus imeretina, Quercus hartwissiana, Tilia caucasica*).

Tianeti

Overall, NDVI vegetation trend analysis revealed an increase in vegetation cover for forest and shrubland as well as agricultural areas across Tianeti district (Figure 17). In particular, forest and agriculture lands in the valleys showed a strong increase in vegetation cover.

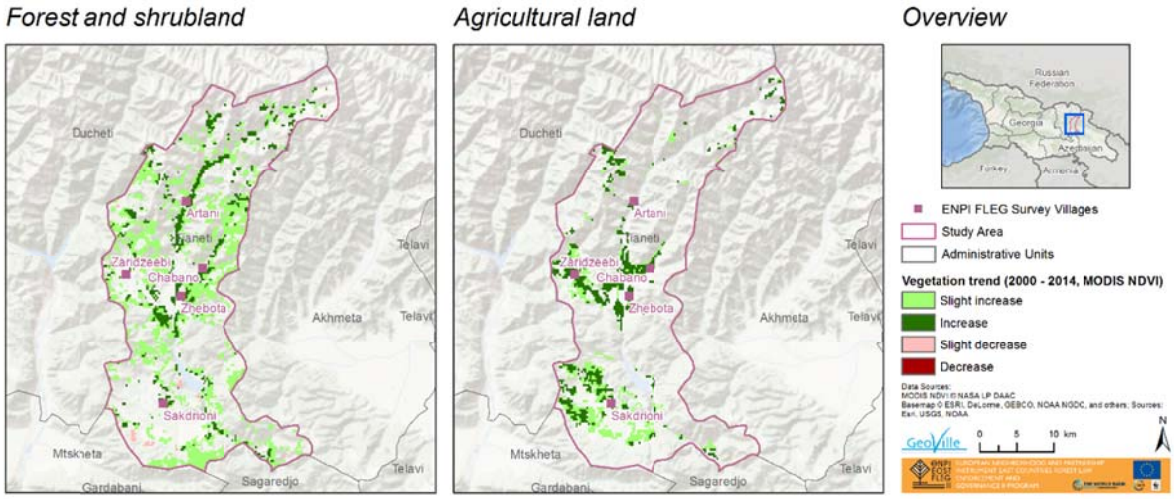

Figure 17: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Tianeti municipality, Georgia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The local level FLR study was performed for Sakdrioni village. In total an area of 36.39ha was considered as being degraded forest landscapes, which are currently used for grazing (see Figure 18). Suggested FLR activities include to establish a windbreaks as well as erosion-control and soil protection forest strips using conifers (*Pinus sosnowsky, Cupressus sempervirens, Cedrus deodara*), broadleave trees (*Fraxinus excelsior, Acer campestre, Pyrus caucasica, Malus sylvestris*) and shrubs (*Cotinus coggygria, Mespilus germanica, Prunus divaricata*).

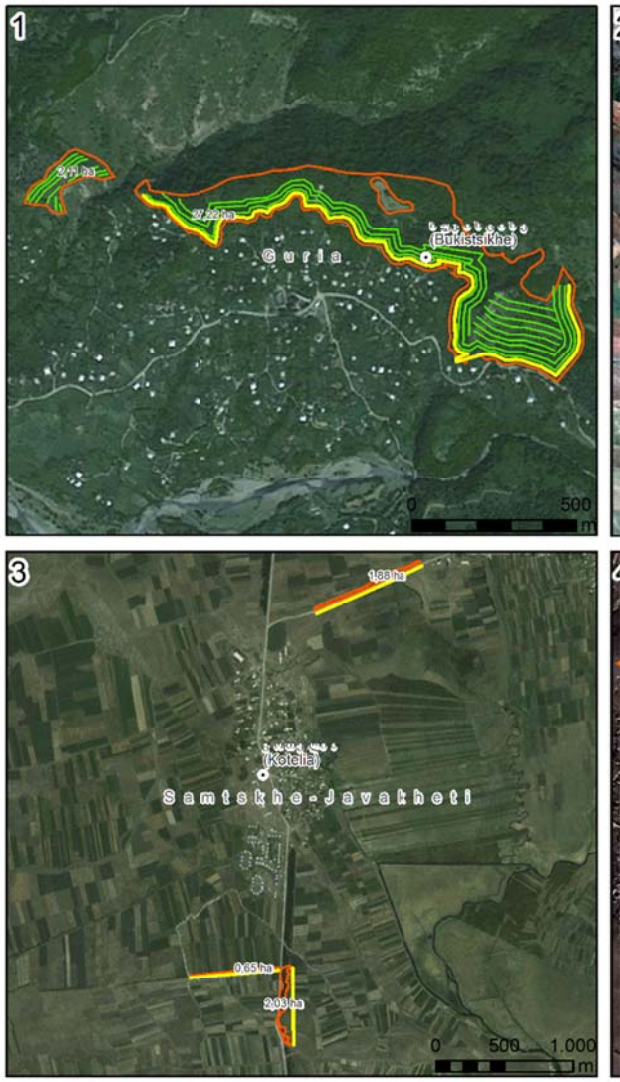

Figure 18: FLR intervention areas for and 1) Bukitsikhe (Chokhatauri), 2) Mikeltsminda (Akhaltsikhe), 3) Kotelia (Akhalkalaki) and 4) Sakdrioni (Tianeti).

2.5. Moldova

Description of FLR case study site

Three municipalities were selected for the FLR visibility study in Moldova including Gagauzia in the south and Mereni and Ungheni located in the central part of the country. There is a difference between the northern and central parts and the southern part of Moldova. While the northern parts are more forest dominated, the southern parts are characterised by large agricultural areas.

Stakeholder Meetings

All stakeholder meetings were arranged beforehand by contacting the heads of local administrations. No negative issues were encountered during the stakeholder meetings and local administrations were enthusiastic about the FLR approach. The FLR team was able to identify the type of interventions, FLR areas and sites, as well as possible species for restoration.

Stakeholder meetings were run by Aurel Lozan (ENPI FLEG IUCN CPC and FLR Azerbaijan coordinator), who was accompanied by Nicolae Talpa (land engineer and FLR assistant). In total 10 stakeholders were involved in the FLR process that included the mayors of each community, representatives of local forest enterprises as well as conservation agencies. An overview of the main local stakeholders involved is presented in Table 5 of the Appendix.

FLR Potential

Gagauzia district

The Gagauzia district is dominated by agricultural land for which increasing and decreasing vegetation trends were obtained. There is no distinctive pattern and small degradation patterns occurred throughout the district (Figure 19). On the ground surveys should clarify the cause of these degradation trends and define appropriate measures.

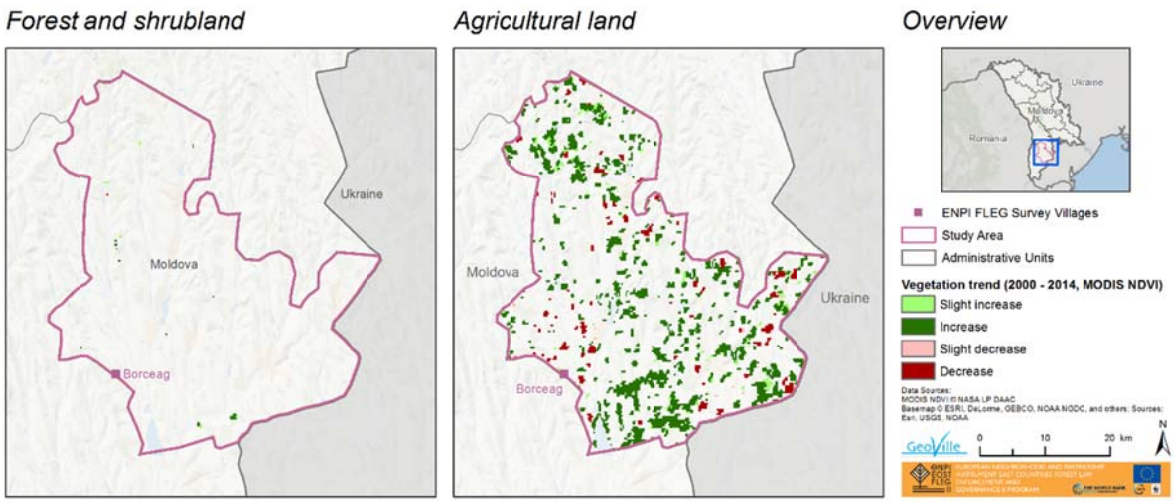

Figure 19: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Gagauzia region in Moldova. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The Borceag community was selected for the FLR activity, where forest vegetation is hardly managed. Locals are deriving their fuelwood mainly from neighbouring Moldsilva's forests, partly from their own forest vegetation and/or from agricultural biomass. The inhabitants of Borceag are traditionally oriented towards cattle farming and, thus, seemed more interested in combining forest vegetation with pastures. This was considered during the FLR process and three types of FLR interventions were proposed (see Figure 21):

1. Ecological reconstruction of an area afforested during 1974-1978 is required to substitute existing acacia plantations with more suitable tree species.
2. Silvopastoral management of existing communal forests and pastureland as one type of natural resource management through 3 main approaches: enhancing forest

vegetation (from 10% now up to 30-40% of the total site area); creation of tree/shrubs bio-groups (both forest and fruit species), and improving herbaceous layers.

3. Shelterbelts rehabilitation: 10 ha were created in the past of 70-80th, of which 7 ha are in poor conditions and 3 ha need slight (less costly) rehabilitation; rehabilitation would include various approaches, such as reforestation, pruning/thinning, or clear-cut with subsequent reconstruction.

Mereni community

Mereni community had already allocated approximately 101ha of available land for the governmental forest expansion program 2014-2018. Based on existing Forest Management Plans (FMP) and maps as well as on existing conditions and available land, three types of possible FLR interventions were identified (see Figure 21):

- Ecological reconstruction in a selected forest land that would involve several types of species conversion from introduced/cultivars of “Walnut with Black locust” to “native “Common and/or Downy oaks”
- Reforestation of existing forest areas where previous afforestation failed because of unsuitability of species and site/soil using more suited species
- Shelterbelt rehabilitation of degraded agricultural protection belts that have either been depleted by local population or unsuited species have been used.

Ungheni region:

For the Ungheni region both decreasing and increasing trends in agricultural regions were revealed and in particular in the western part of the region patterns of decreasing trends were obvious (Figure 20).

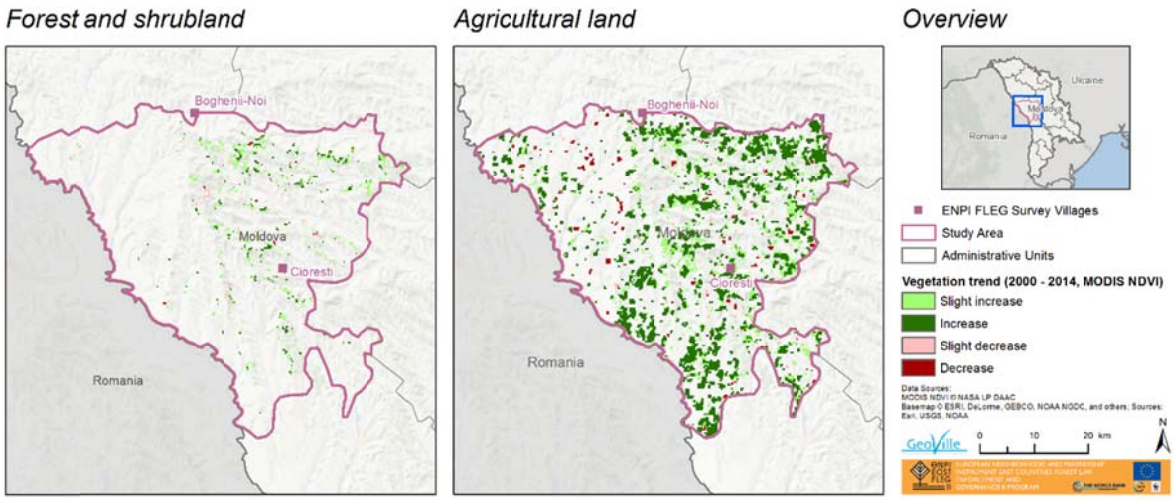

Figure 20: Vegetation trends for forest and shrubland (left) and agricultural land (right) for Ungheni region in Moldova. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The community Boghenii-Noi was selected for a local FLR study (see Figure 21). An active forest management was already established and under the guidance of the commune's forestry staff and the FMP, locals have already undertaken restoration work. Based on the situation analysis in the field and stipulations of the FMP as well as on discussions with the local administration, the following types of FLR interventions were proposed:

1. Reforestation of circa 15 ha of forest land with native species to consolidate existing forests and build connectivity corridors
2. Ecological reconstruction of circa 30 ha of that is classified as either "hollow" or stands/forest in poor conditions requiring conversion/reconstruction. The main tree species to be used would be local oaks or red oak as well as other local species

(maple, ash, cherry etc.)

3. Shelterbelt rehabilitation on 25 ha of land that requires interventions through various ways of ecological reconstruction – eventually, 15% of shelterbelts would be formed by fruit/nut species, while the rest of 85% by forest species.

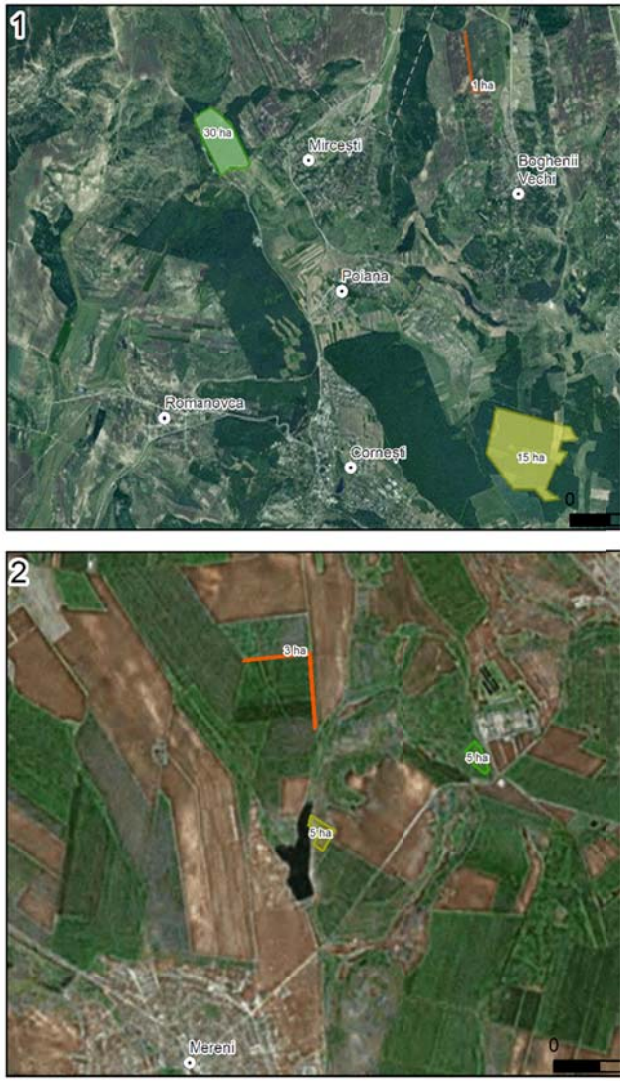

Figure 21: FLR intervention areas for 1) Boghenii-Noi, 2) Mereni and 3) Borceag, Moldova

2.6. Russia

Description of FLR case study site

For the FLR visibility study communities of two districts where chosen. Bezhanitsy, Tsevlo, Krasnyi Luch are located in the Bezhanitsky district of the Pskov region. The Bezhanitsky district is dominated by farmland and forest, with an economy that is mainly based on agriculture. Terney is located in the Terneysky district of Primorsky Krai in the Russian Far East. The region is characterised by forests with the main income generated from timber processing enterprises and fish processing.

Stakeholder Meetings

The stakeholder meeting in Bezhanitsy district was run by Konstantin Gongalsky (IUCN consultant, FLEG II), who was accompanied by Natalia Milovidova (IUCN consultant, FLEG II). Andrey Zaytsev (IUCN CPC) was responsible for the meeting in Terney. Almost 30 local stakeholders were involved in the FLR process, including representatives of local national parks and nature reserves, citizens of the communities and others. An overview of the main local stakeholders involved is presented in Table 6 of the Appendix.

There were a variety of issues and challenges associated with the FLR work in Russia, which included[9]:

- The majority of respondents (75%) and stakeholders found FLR "boring, idealistic, lacking clear aims, unrealistic" based on the existing information package
- Several decision-makers claimed that FLR even at the planning, not to say implementation stage would be illegal.
- Most of the stakeholders found using "Forest" in the title of FLR very misleading, as the understanding of the approach was immediately downgraded to forest lands.
- It was almost impossible to initiate any kind of productive discussions if FLR was presented as a product of an international NGO.

[9] Communication with Andrey Zaytsev

- The overall level of interest to FLR was low as people were rather seeking for quick solutions of actual burning issues instead of strategic planning which they called "unrealistic in our unpredictable country".
- Large level of distrust between the civil society and businesses/administrations was very hard to overcome during the initial discussions phase.

FLR Potential

North-West Russia - Bezhanitsy district

Overall the NDVI trend analysis revealed increasing vegetation trends for forest and shrublands as well as agricultural areas. In particular, northeast of Bezhanitsy large-scale increase of forest and shrubland were obtained and small patterns of decreasing trends are found in the north of the district (Figure 22).

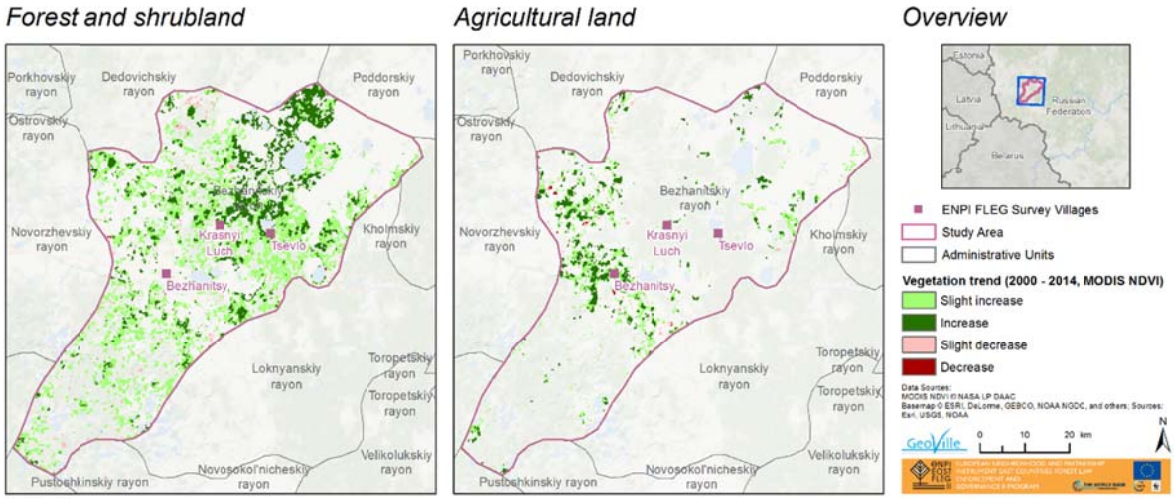

Figure 22: Vegetation trends for forest and shrubland (left) and agricultural land (right) for the three communities located in the Bezhanitsy district, Russia. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

Participants from nature reserves and local representatives did not percept much the idea of FLR. Their major concern was to distinguish the overall meaning of forest landscape. Prior to any restoration, few steps are needed, which include:

- Clarifications about the aims of FLR needed, and a clear separation between natural

re-growth and the role of the Russian stakeholders in this process

- Clear planning of FLR steps should evolve the experience of local PAs
- A professional survey of the Russian legislation is needed to adapt the FLR methodology to the local conditions.

However, a total of 11.451 ha was defined as degraded lands with the majority being found in agricultural land and forests (Figure 23 and Figure 24).

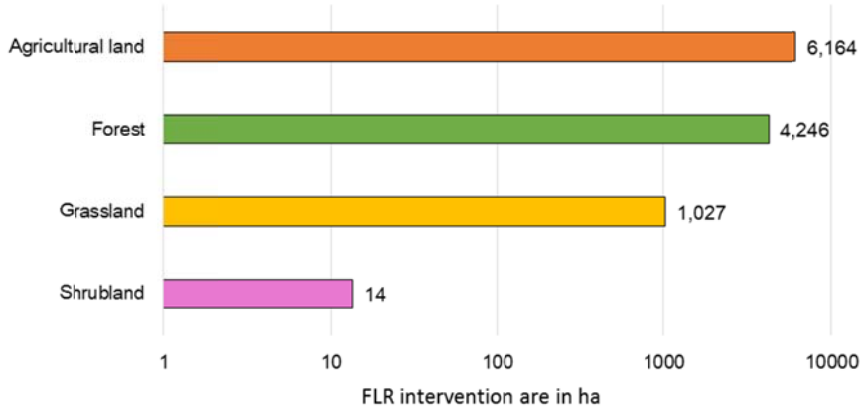

Figure 23: Total size and type of FLR intervention areas in Bezhanitsy, Russia. Note that the scale is logarithmic.

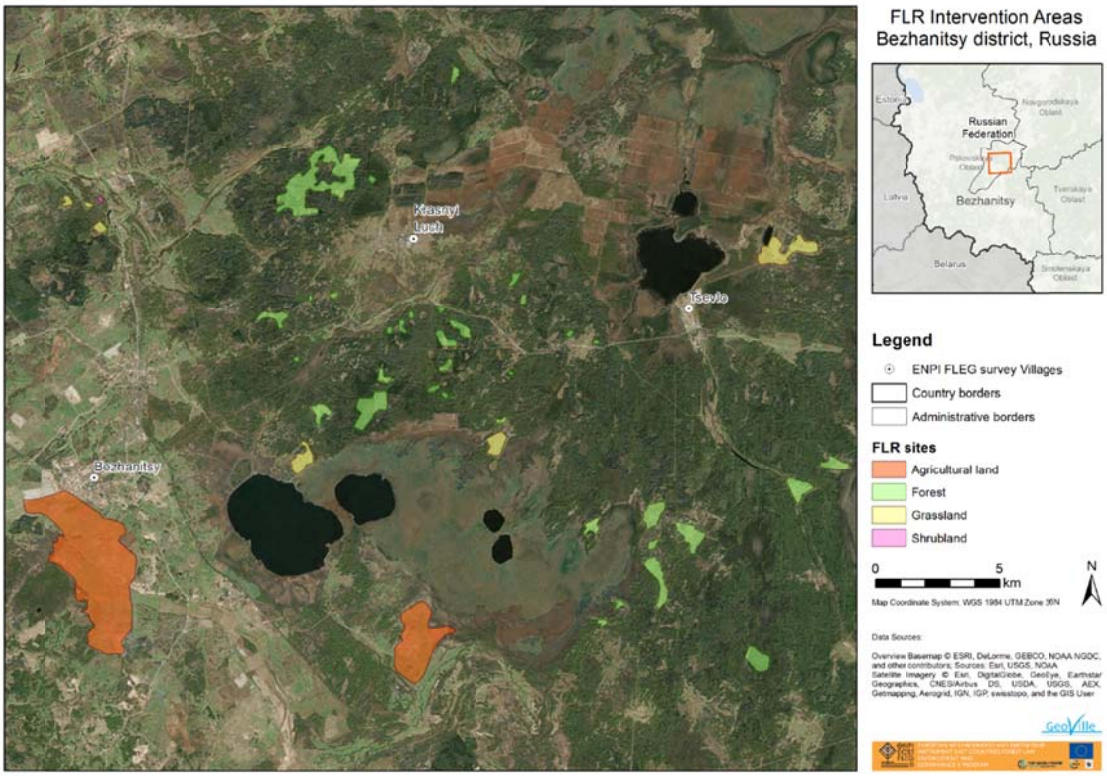

Figure 24: FLR intervention areas for Bezhanitsy, Russia.

Russian Far East - Terney

After presenting the FLR concept in light of the potential implementation in the Russian Far East to the stakeholders and forest authorities, the following conclusions can be made based on the discussions:

- Natural forest regeneration after clear-cuts and, especially, after illegal loggings in the surroundings of the reserve should be supported.
- Tree species for forest regeneration should be selected with care based on the expertise of forestry specialists.
- The main problem with illegal loggings and improper management of existing forests are based on the Forest Code which *de facto* allowed land users not to restore forest cover after logging.
- FLR should consider local legislation and plans for development of a region. These plans that may have been adopted decades ago, still allocate some lands for definite purposes, such as road construction or creation of a factory, and may contradict to the plans of FLR.

A total of 345ha was identified as degraded, with the majority being forest land (Figure 25 and Figure 26).

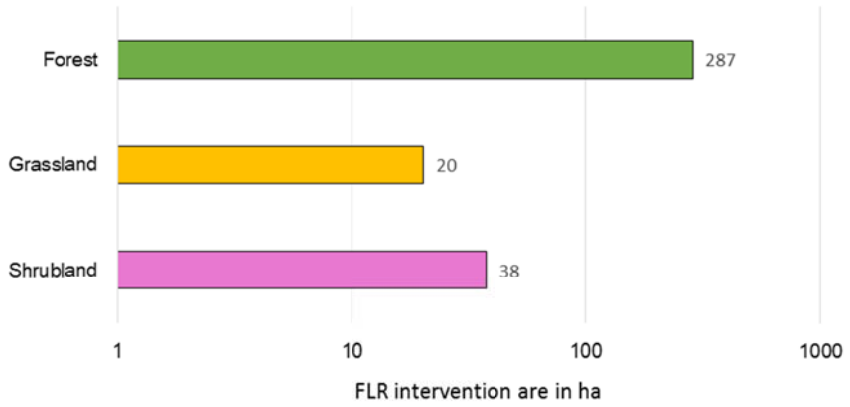

Figure 25: Total size and type of FLR intervention areas in Terney, Russia. Note that the scale is logarithmic.

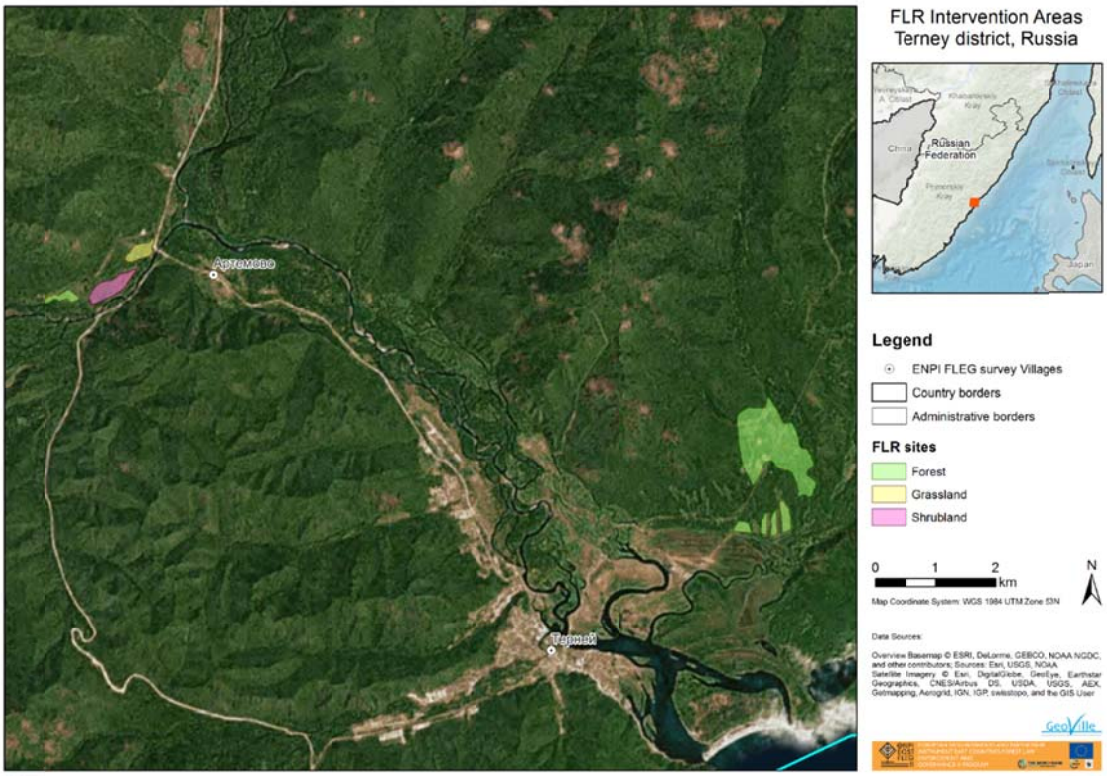

Figure 26: FLR intervention areas for Terney, Russia.

2.7. Ukraine

Description of FLR case study site

The FLR visibility study has been conducted in three different regions of Western Ukraine, which is the most forested part of the country. These include the “Polissia”-plain, located in the northwest of Ukraine (Rivne region, Bereznivskyi district, village Bystrychi), the “Roztochchia”-plain, located in the western part of the country (Lviv region, Zhovkivskyi district, village Zabira) and “Transcarpathia” – the Carpathian mountains, located in the south-western part of Ukraine (Transcarpathian region, Dolynski district, villages Senechiv and Vyshkiv).

Stakeholder Meetings

The stakeholder meetings were run by Roman Volosyanchuk. A total of 47 stakeholders were involved in the FLR visibility study across the three Ukrainian regions, which included the heads of the respective villages, local community members, and representatives of the forest sector as well as others (e.g. priest, teachers).

FLR Potential

Bereznivskyi district

Overall increasing vegetation trends were observed in forest and shrubland as well as strong agricultural land for the Bereznivskyi district (Figure 27). Decreasing trends are rather small and are scattered across the entire district.

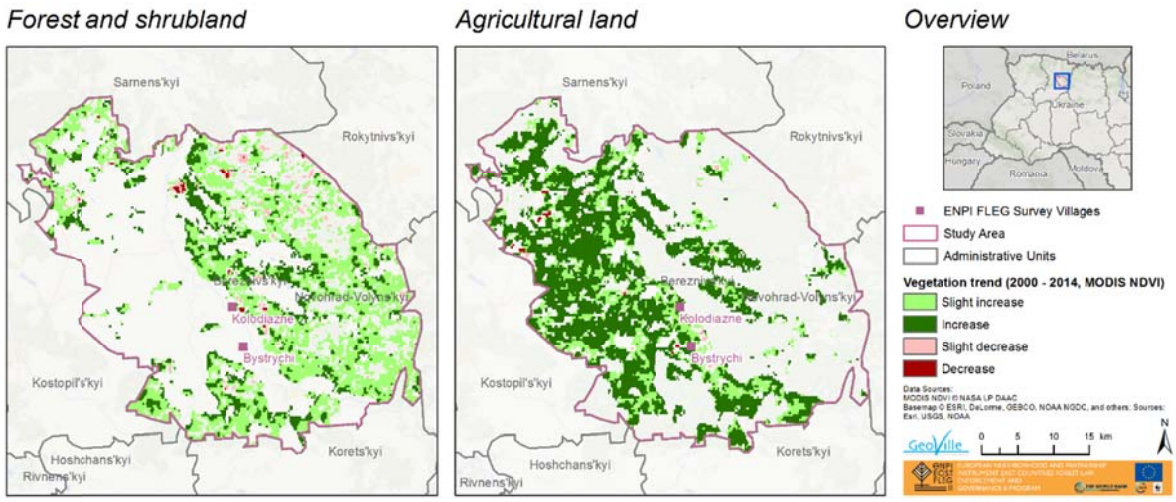

Figure 27: Vegetation trends for forest and shrubland (left) and agricultural land (right) for the three communities located in the Bereznivskyi district, Ukraine. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The Bystrychi village was selected for the local FLR visibility study. During the meeting the following restoration opportunities were identified:

- Afforestation of circa 500m of the Sluch river bank in the village to protect the bank against erosion.
- Establishing ca. 15 ha of willow plantations on the river floodplain in order to provide the both resource for producing wicker furniture as well as for bio-energy.
- Maintaining the forest massif around the Bystrychi village to ensure sustainable production of NTFPs as one of very important local resources.

Dolnskyi district

Vegetation trend analysis revealed increasing trends in forest and shrubland for the Dolynski district, with patches of decreasing forest vegetation in the south-east and the western part of the district (Figure 28). For agricultural land, vegetation trend estimates were showing increasing patterns in the north, with rather small areas of decreasing trends.

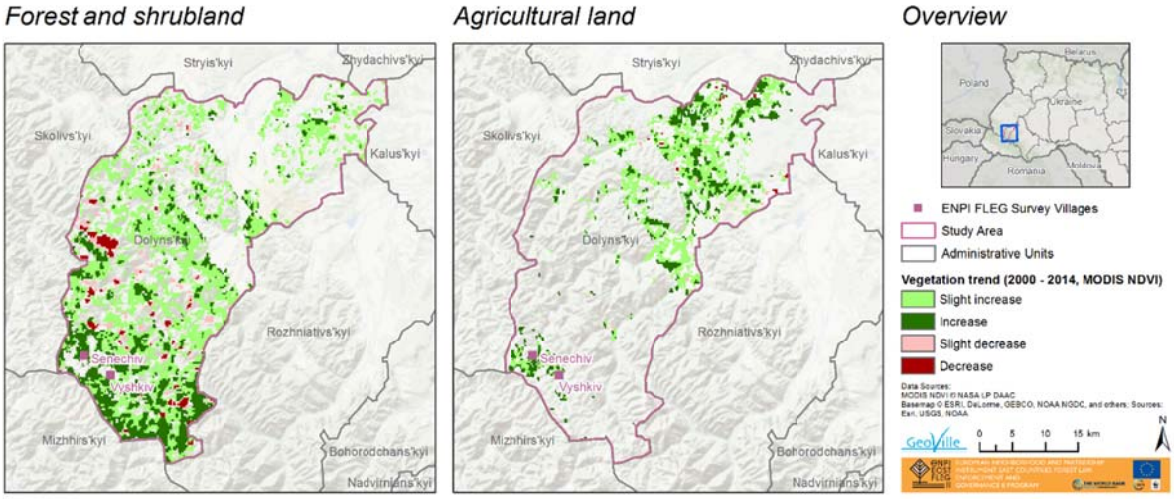

Figure 28: Vegetation trends for forest and shrubland (left) and agricultural land (right) for the three communities located in the Dolynski district, Ukraine. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

The villages Senechiv and Vyshhkiv have been selected for the in-depth FLR visibility study. For the Senechiv village it was suggested to assigning 5ha of former agriculture land for natural afforestation with native species in order to enhance protection against land erosion. The land is low-productive for agriculture and belongs to the village, a natural afforestation process is already ongoing but there is a need to change the official land use type from agriculture to forestry, which can provide both environmental and timber production services. Further, it was discussed to maintain the forest massif around the Senechiv village to ensure sustainable production of NTFPs as one of very important local resources.

For the Vyshkiv village, local stakeholders suggested the establishment of forest roads to the neighbouring massifs of mature forests to support sustainable forestry as well as rural tourism development. Further, an establishment of tourist shelters on tourist paths in the forests as well as maintaining the forest massif around the Vyshkiv village to ensure sustainable production of NTFPs as one of very important local resources.

Zhovkivskyi

In general, vegetation trend analysis revealed increasing trends for forest and shrubland as well as agricultural land for the Zhovkivskyi district (Figure 29). Decreasing trend are rather small and distributed over the entire area.

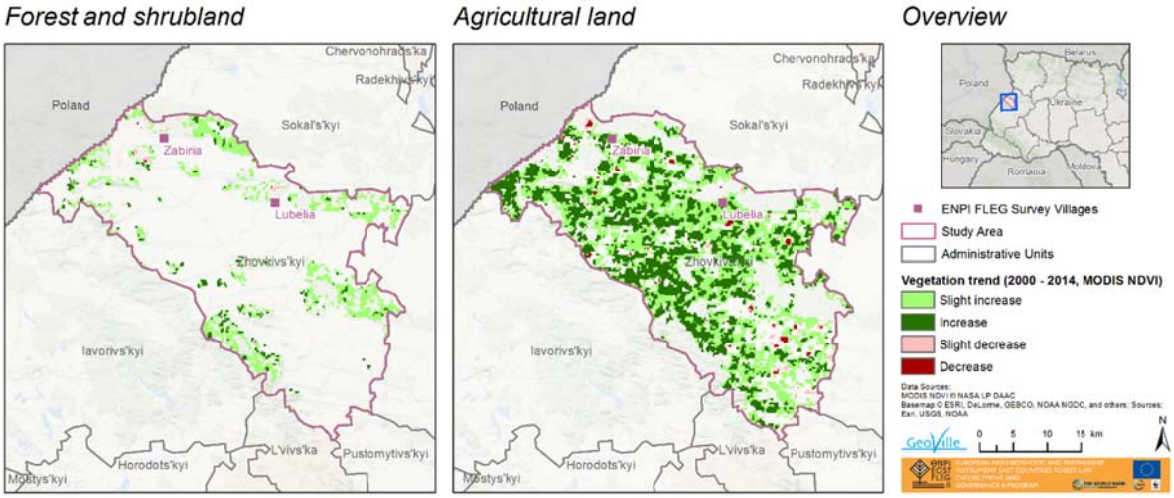

Figure 29: Vegetation trends for forest and shrubland (left) and agricultural land (right) for the three communities located in the Zhovkivskyi district, Ukraine. Trends are based on MODIS NDVI satellite imagery for the period 2000 to 2014.

During the FLR stakeholder meeting in Zabiria it was suggested to afforest 10 ha of floodplain land with native species on the area in between the Rata River and Syn'kovychi village to enhance protection against flooding. This land belongs to the Land Reserve Fund that is already allocated (planned) by the commune to be planted with trees and/or shrubs. Further the forest massif between the Zabiria and Mykhaylivka villages should be maintained to ensure sustainable production of NTFPs as one of important local resources.

3. Lessons learned

Although only conducted as a small-scale visibility study, the FLR work in each of the countries provided a multitude of lessons learned and experiences which are crucial for implementing FLR on a country-wide level.

Planning of field trips

In general, it was advantageous if the FLR work was conducted in communities where good connections already existed, as people were more trustful and more willing to participate.

Further, weather conditions were critical and for example in Georgia, the FLR team faced cold and severe weather in mountainous regions. Hence, any FLR implementation should be planned in late spring or summer time to avoid problems and delays due to bad weather conditions.

Implementation in the field

First of all, it was necessary to provide comprehensive information to the local stakeholders so that they understand the idea of the FLR concept. With respect to the mapping it is highly advised to have a GIS person in the field for answering any questions and for mapping the data. Further, the maps have to be very easy and straight forward so that local stakeholders understand the issue.

In the case of Russia, it was highly beneficiary that a country person conducted the work, because locals were not happy if a foreigner asks questions. According to Andrey Zaytsev, it was almost impossible to initiate any kind of productive discussions if FLR was presented as a product of an international NGO. However, this kind of experience has not been made in the remaining countries.

Species selection

With respect to the planned FLR strategies it is necessary to correspond to the interests of the local population. For example, the inhabitants of Borceag are traditionally oriented towards cattle farming and, thus, seemed more interested in combining forest vegetation with pastures. Further the species selection for the restoration should be chosen in accordance with local conditions including an analysis of the type of site and soils. However, the focus should be on native types of forests, which can be more adapted to changes in environment and contribute to soil stabilization and biodiversity conservation. Again, this process has to be done jointly with the local administration.

People's attitude

In some countries the FLR team encountered mistrust and villagers and employers of local forest entries were not willing to share information about forest dependency. Further, a common vision on local forest development was absent.

Strong reaction occurred in Russia, where people considered the FLR approach as rather boring, which was most likely a consequence of lacking environmental awareness and the mentality of people in Russia, where planning ahead is a bad habit. Similar attitudes were not experienced in the other countries, were people were very enthusiastic about the FLR approach (e.g. Moldova, Georgia).

Political issues

Throughout the FLR visibility studies is was essential to consider the political issues in the country. In Georgia, for example, the FLR team was asked by all four municipalities to postpone planned field works (initially planned for September) due to the parliamentary elections on October 8. The delay caused some difficulties to the project team, which included bad weather conditions during the field works and a slight delay in final deliverable.

In case of Russia, when developing such framework federal, regional and local laws on the territorial development and additionally classified legislation regarding strategic natural resources conservation and defence issues should be considered. Some Russian plans that may have been adopted decades ago, still allocate some lands for definite purposes, such as road construction or creation of a factory, and may contradict to the plans of FLR. Hence, in case of Russia a professional survey of the Russian legislation is highly recommended to adapt the FLR methodology to local conditions.

Gender

Gender seemed to be an issue in Azerbaijan and women were not allowed to participate in any decision making process regarding forest-related issues.

EUROPEAN NEIGHBORHOOD AND PARTNERSHIP INSTRUMENT EAST COUNTRIES FOREST LAW ENFORCEMENT AND GOVERNANCE II PROGRAM

The Program is funded by the European Union and implemented by the World Bank in partnership with WWF and IUCN

4. Appendix

4.1. Overview of participants at the stakeholder meetings

Armenia:

Table 1: Participants of the stakeholder meetings in Armenia

Community	Stakeholders involved
Lori region	• Samvel Mkhitaryan, head of Yeghegnut forest enterprise in Lori Region • Gagik Amiryan, Chief Forest Engineer at Yeghegnut forest enterprise • Misha Hovhannisyan, mayor (head of administration) in Yeghegnut village • Ararat Kocharyan, mayor (head of administration) in Debet village
Syunik region	• Armen Ishkhanyan, head of Goris forest enterprise in Syunik Region • Lazer Yuzbashyan forest specialist, Goris forest enterprise in Syunik Region • Marat Gerasimyan, specialist and community adviser at Tatev community administration
Tavush	• Ashot Yeritsyan, head of Sevkar forest enterprise in Tavush Region • Mushegh Madatyan, forest specialist at Sevkar forest enterprise in Tavush Region • Suren Manukyan, head of Ijevan forest enterprise in Tavush Region • Vardan Arustamyan, forest specialist at Ijevan forest enterprise in Tavush Region • Aren Dolmazyan, mayor (head of administration) of Aknaghbyur village • Shahen Shahinyan, mayor (head of administration) of Gandzakar village

Azerbaijan:

Table 2: Participants of the stakeholder meetings in Azerbaijan

Community	Stakeholders involved
Khanagah village Ismailli district	• Eynulla Babayev- member of community, Mekhanisator. • Nusret Babayev - Local Farmer • Babayev Kheyrulla -Forester, Local Forest Enterprise • Jamalov Bakhtiyar - Memder of local authority • Khalilov Novruz - Local Farmer • Garibov Jabbar - Head of rangers. Local Forest Enterprise • Ahmadov Gahraman - Forester, Local Forest Enterprise
Hajalli village Geranboy District	• Huseynov Niyazi - Forest restoration engineer • Abbasov Zakir - member of community, • Aliyev Zaladdin - Local Farmer • Abbasova Goycek - leader of local women • Bayramov Gunduz - member of local authority

	• Huseynov Mahir – Farmer • Rustam Humbatov - Head Forester from local forest enterprise

Belarus:

Table 3: Participants of the stakeholder meetings in Belarus

Community	Stakeholders involved
Gubichi	• Lilia Tormanova, Head of Gubichi Rural Council • Ivan Kostyuchenko, Director of local school, local activist • Mikhail Rybik, Director of CAUE «Gubichi» (on the phone)
Pribor	• Vladimir Sverdun, Head of Pribor Rural Council • Nikolai Sinitsyn, Local farmer, businessman, benefactor • Vassili Lazovik, head of Pribor Forestry Unit, forest ranger

Georgia:

Table 4: Participants of the stakeholder meetings in Georgia

Municipality	Stakeholders involved
Tianeti	• Leila Kitesashvili - Head of Tianeti Municipality • Giorgi Kenkishvili - municipality head to the village Sakdrioni • Tamazi Chedilashvili – assistant of Giorgi Kenkishvili • Giorgi Bagaturia - Consulting company M3 • Zviad Tiginashvili - Consulting company M3
Chokhatauri	• Irakli Kuchava - Head of Chokhatauri Municipality • Zviad Ckhikvadze - Head of forest section • Temur Antidze - Chief Forester of the region Temur Antidze • Gela Eziashvili - municipality head to the village Bukistsikhe • Giorgi Bagaturia - Consulting company M3 • Zviad Tiginashvili - Consulting company M3 • 4 local representatives
Akhaltsikhe	• Zaza Melikidze - Head of Akhaltsikhe Municipality • Ramin Marginenko - Head of Environment and Agriculture Affairs Unit, • Stalberi Kurmashvili - Head of forest section (forester) of Akhaltsikhe • Ararat Chakhoyan - representative of the municipality head to the village Mikeltsminda • Giorgi Bagaturia - Consulting company M3 • Zviad Tiginashvili - Consulting company M3 • 4 local representatives

Municipality	Stakeholders involved
Akhalkalaki	• Eduard Agarasyan - Head of Akhalkalaki Municipality • Kakha Zurabashvili - representative of the municipality head to the village Kotelia • Malkhaz Tabatadze - Head of forest section (forester) of Aspindza-Akhalkalaki • Giorgi Bagaturia - Consulting company M3 • Zviad Tiginashvili - Consulting company M3 • 3 local representatives

Moldova:

Table 5: Participants of the stakeholder meetings in Moldova

Community	Stakeholders involved
Boghenii-Noi commune	• Gheorghe Filipovici, Boghenii-Noi mayor (head of administration) • Victor Filipovici, community forest adviser at Boghenii-Noi (former FLEG consultant) • Gheorghe Stefarta, forester of Boghenii-Noi commune • Ion Tacu, local counselor at Ungheni district council, entrepreneur • Vladimir Childescu, vicar of the Monastery “Boghenii-Vechii”
Mereni community	• Eugen Salcutan, mayor of Mereni village • Gheorghe Chirita, forest engineer and local inhabitant (forest advisor to mayor)
Borceag village	• Ion Capita, Borceag mayor (head of administration) • Artur Nebunu, chairman of Ecological Counselling Centre Cahul • Mr Gheorghe, cadaster Officer at Borceag village

Russia

Table 6: Participants of the stakeholder meetings in Russia

Community	Stakeholders involved
North-West Russia; Bezhanitsy	• Anikieva Maria M. - outreach specialist at NP "Kenozersky" • Bezobrazov Dmitry S. - former head of NP "Sebezhsky" • Bizhon Alexander V. – director at NP "Paanajärvi" • Bogolepova Lubov V. - outreach specialist at NP "Kenozersky" • Gasparyan Ksenia - project coordinator at Ecocenter "Zapovedniki" • Denisova Apollinaria S - Nature Reserve "Nizhne-Svirsky" • Denisova Irina S – deputy head of Nature Reserve "Nizhne-Svirsky" • Denisova Margarita - outreach specialist of Nature Reserve "Polistovsky" • Zheltukhina Yulia S – deputy head of Nature Reserve "Centralno-Lesnoy" • Illarionov Pavel V - Citizen of Tsevlo • Kashcheeva Natalia - NP "Orlovskoe Polesye" • Krolikov Vladimir V. – head of ГПЗ "Рдейский"

Community	Stakeholders involved
	• Kudrina Olga A. - Nature Reserve "Polistovsky" • Kuznetsov Alexei L • Mikhailov Igor E – deputy head of Nature Reserve "Polistovsky" • Nikolenko Nadezhda P - Nature Reserve "Polistovsky" • Prigoryanu Oleg M – head of NP "Orlovskoe Polesye" • Patsai Marina – deputy head of NP "Onezhskoe Pomorye" • Pecheritsa Alena - Nature Reserve "Polistovsky" • Peshnova Irina V - Head of Department of Tourism Development of NP "Smolensoe Poozerye" • Potemkin Nikolai A – head of Nature Reserve "Centralno-Lesnoy" • Prilutsky Konstantin – deputy head of Nature Reserve "Polistovsky" • Razumovskaya Vera I - Citizen of Tsevlo • Yablokov Mikhail S – head of Nature Reserve "Polistovsky"
Russian Far East; Terney	• Dmitry Yu. Gorshkov – head of Sikhote-Alin Nature Reserve • Gennady A. Tukhbatullin – deputy head of "Primorsky Forest" Primorsky Krai Governance • Galina D. Maksimova – Head of Ecological Community "Uragus" • Nadezhda I. Labetskaya – correspondent of local newspaper "Vestnik Terneya" • Representative of Terney-Les LLC

Ukraine:

Table 7: Participants of the stakeholder meetings in Ukraine

Community	Stakeholders involved
Bystrychi	• Pavlovych O.V., Head of Bystrychi village council • Chepeniak N.V., Land Planning Officer in the local municipality • Vinnyts'ka Kh.V., teacher • Bolekhan H.B., village Council member • Kachur I.H., teacher • Osadtsiv R.V., Berezne SFE Officer • Kolorysyn Z.I., Forest Ward Assistant • Pashko P.P., Forest Ward Assistant • Khomyn O.V., forest technician • Lavriv L.D., Priest • Mel'nyk I.B., teacher
Senechiv	• Roshko M.S., Head of Senechiv village council • Shved H.V., the school Director • Khalus N.Ya, teacher • Kypytsa V.V., Land Planning Officer in the local municipality • Kulynych M.T.., teacher • Chuchvych N.V., forest nursery technician

Community	Stakeholders involved
	• Kulyn V.I., forest technician • Ledney H.V., village Council member • Shubynets H.V., village Council member • Danyshchyk A.A., Forest Ward • Vodiana L.T., teacher
Vyshkiv	• Vinnyts'ka N.N., Vyhoda SFE Deputy Director • Mykuliak N.P., teacher • Khlus Ye.M., Head of Senechiv village council • Shubynets V.M., Land Planning Officer in the local municipality • Molodnian N.Ya., village Council member • Nahorniak N.S., village Council member • Petrovs'ka O.I., local businesswoman • Beliak T.M., teacher • Shtohryn O.P., teacher • Vykhtor V.S., Forest Ward • Myrovych Yu.Yu., Forest Ward Assistant • Mastylo Yu.Yu., forest technician
Zabiria	• Sen'ko Z.M., Head of Zabiria village council • Vorozhbyt Ihor, Land Planning Officer in the local municipality • Cherniuh V.T., Head of Lubelia village council • Semochko Nadiia, Director of the Zabiria village library • Perih Tetiana, Director of Zabiria village club • Koprovska Halyna, Secretary of village council • Diachok S.S., village Council member, Syn'kovychi • Ledviy Petro, Forester in Rava-Ruske FE • Fedyk M.M., Teacher • Dackiv S.M., Teacher • Bils'kyi I.V., Forest Ward at the "Halsillis" Communal Forestry Enterprise • Kobryn V.V., local businessman

The Forest Law Enforcement and Governance (FLEG) II European Neighbourhood and Partnership Instrument (ENPI) East Countries Program supports participating countries' forest governance. At the regional level, the Program aims to implement the 2005 St. Petersburg FLEG Ministerial Declaration and support countries to commit to a time-bound action plan; at the national level the Program will review or revise forest sector policies and legal and administrative structures; and improve knowledge of and support for sustainable forest management and good forest governance (including the impact of related EU regulations) in the participating countries, and at the sub-national (local) level the Program will test and demonstrate best practices for sustainable forest management and the feasibility of improved forest governance practices at the field-level on a pilot basis. Participating countries include Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia, and Ukraine. The Program is funded by the European Union.
http://www.enpi-fleg.org

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http://www.iucn.org

WWF

WWF is one of the world's largest and most respected independent conservation organizations, with almost 5 million supporters and a global network active in over 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.
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